Facilitating Social Interaction
Neighborhood Revitalization Strategy of Shanghai Cannes

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Graduation studio: In the Ghetto (Design As Politics)

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Giving Quality Life to the High-density Neighborhoods
in the Suburbs of Shanghai
- The Case of Shanghai Cannes

THESIS PLAN

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Chapter 1
Introduction

This project is about the neighborhood revitalization of Shanghai Cannes, which is a problematic suburban high-density neighborhood in Shanghai. The research itself is a spatial analysis on different scales and mapping of current social networks. The future strategy and design will mainly focus on how to regenerate neighborhood living environment that facilitate social interaction on different scale in order to strengthen the sense of community in Shanghai Cannes.

1.1 Context

Suburbs development under a metropolitan context of Shanghai

As China's largest and wealthiest city, Shanghai's dynamic growth since the 1990s indicates the spatial form of new metropolitan expansion patterns (Walcott and Pannell, 2006). According to the Comprehensive Plan of Shanghai Metro-Region (1999-2020), the urban spatial structure of Shanghai Municipality will be composed by "one city and nine towns", which was launched as an urban-planning pilot project in the early 21st century and has initially completed recently. Since 2006, Shanghai has begun implementing the "1966 plan", which by 2020 aims to establish a new system of cities and towns in Shanghai Municipality. The plan defines the 600-square-kilometre area within Shanghai's outer ring road (S20) as central Shanghai. Outside the ring road, according to the plan, nine new towns with a combined population of 5.4 million, 60 new small towns with populations of around 50,000 each, and 600 central villages with populations of 1,500-3,000 each will be built(SUPAB, 2006).

Fig 1.1: Urban structure of cities and towns in Shanghai
Source: The author, base on The Comprehensive Plan of Shanghai Metro-Region 1999-2020
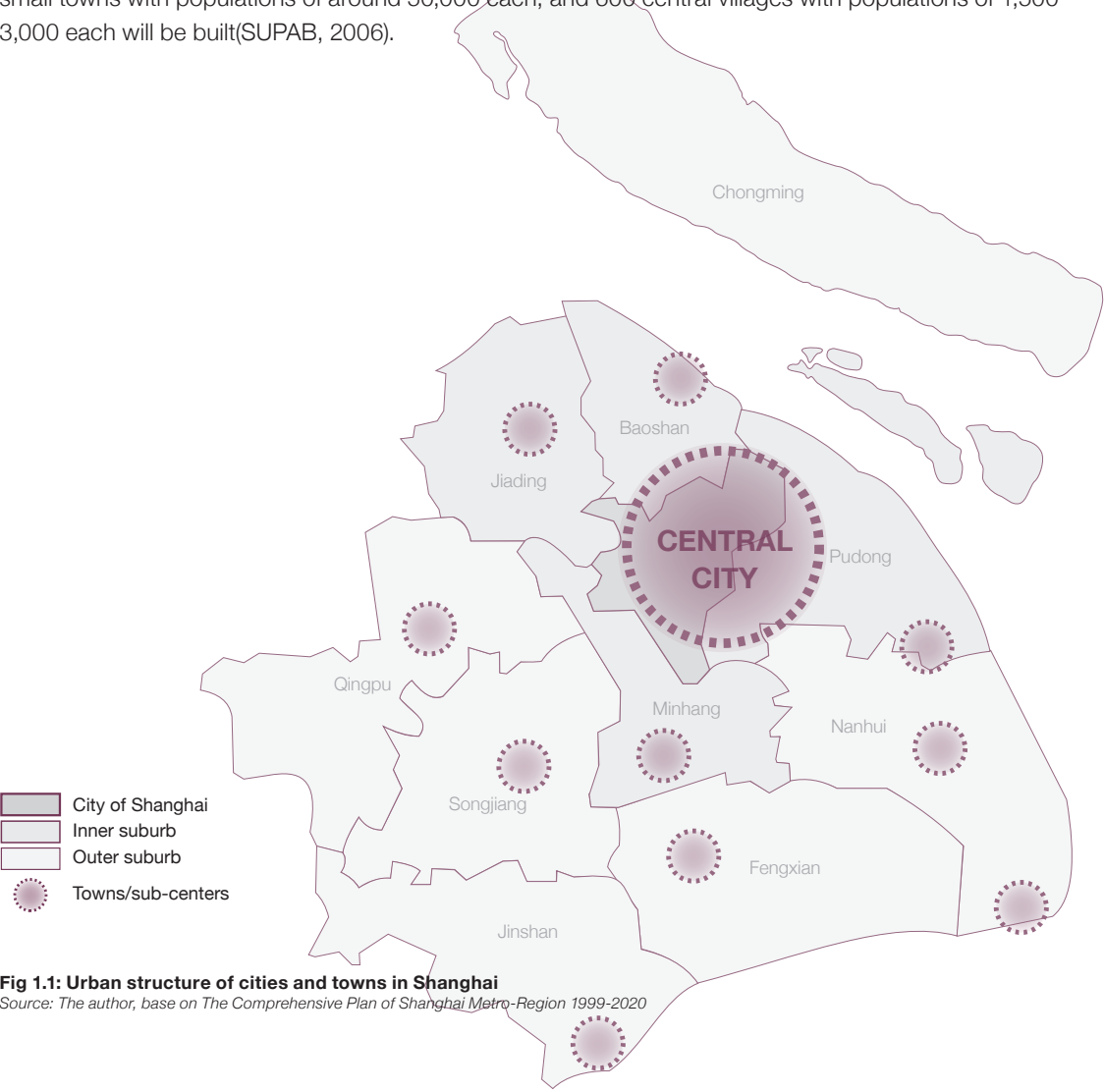
The area and population of city, inner suburbs and ourer suburbs of Shanghai

Data source: Shanghai Statistical Yearbook 2010

	AREA (km2)	POPULATION (million)
Shanghai Municipality	6340	18.88
City of Shanghai	289	6.53
Inner suburbs	1639	7.3
Outer suburbs	4412	5.05

65% population

The central city area ia quite a small piece of such a huge Shanghai. Although the city of Shanghai is famous for its extremely high density, still 65% people actually live in the suburbs of Shanghai. Showing this CBD landmark area of Shanghai is just to say:

It's not the whole image of Shanghai.

High-density neighborhoods in the suburbs of Shanghai

Different from American and European cases, the suburban residential area in Shanghai are not all low-density. Since China's economic reform began in the late 1970s, housing developers have eagerly courted China's burgeoning middle class consumers with ever more grandiose building projects and "foreign-inspired" (Pow and Kong, 2007) villa communities. But in the recent 10 years, in order to alleviate the pressure from the limited supply of housing in the city of Shanghai, and also to support the new development of suburban industry, high-density neighborhoods have appeared and mushroomed in the suburbs of Shanghai. Therefore, the suburban housing morphology is no longer dominated by villa or other low-density housing. And with the dramatic rising of house price in Shanghai, suburban high-density neighborhoods are playing more and more crucial role in providing affordable housing for the working class.

High-density
A high-rise neighborhhood in Minhang District

Low-density
A villa neighborhhood in Songjiang District

Mix-denxity
An apartment neighborhhood in Songjiang District
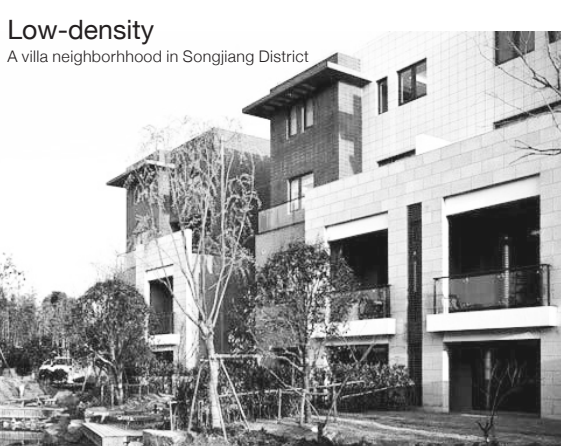
Fig 1.2: Housing morphology in the suburbs of Shanghai
Image source: http://sh.58.com/zufang/67952070x.shtml
http://villa.sh.soufun.com/2010-04-07/3220666.htm
http://sh.item.mysupa.com/property/2713395.html

1.2 Project location:
 Shanghai Cannes

Shanghai Cannes is a high-density neighborhood in Minhang district, which is located in the area close to the boundary between inner suburb and outer suburb of Shanghai. It is the biggest neighborhood in Shanghai and also a neighborhood of concern in Shanghai.

Fig 1.3: Location of Shanghai Cannes
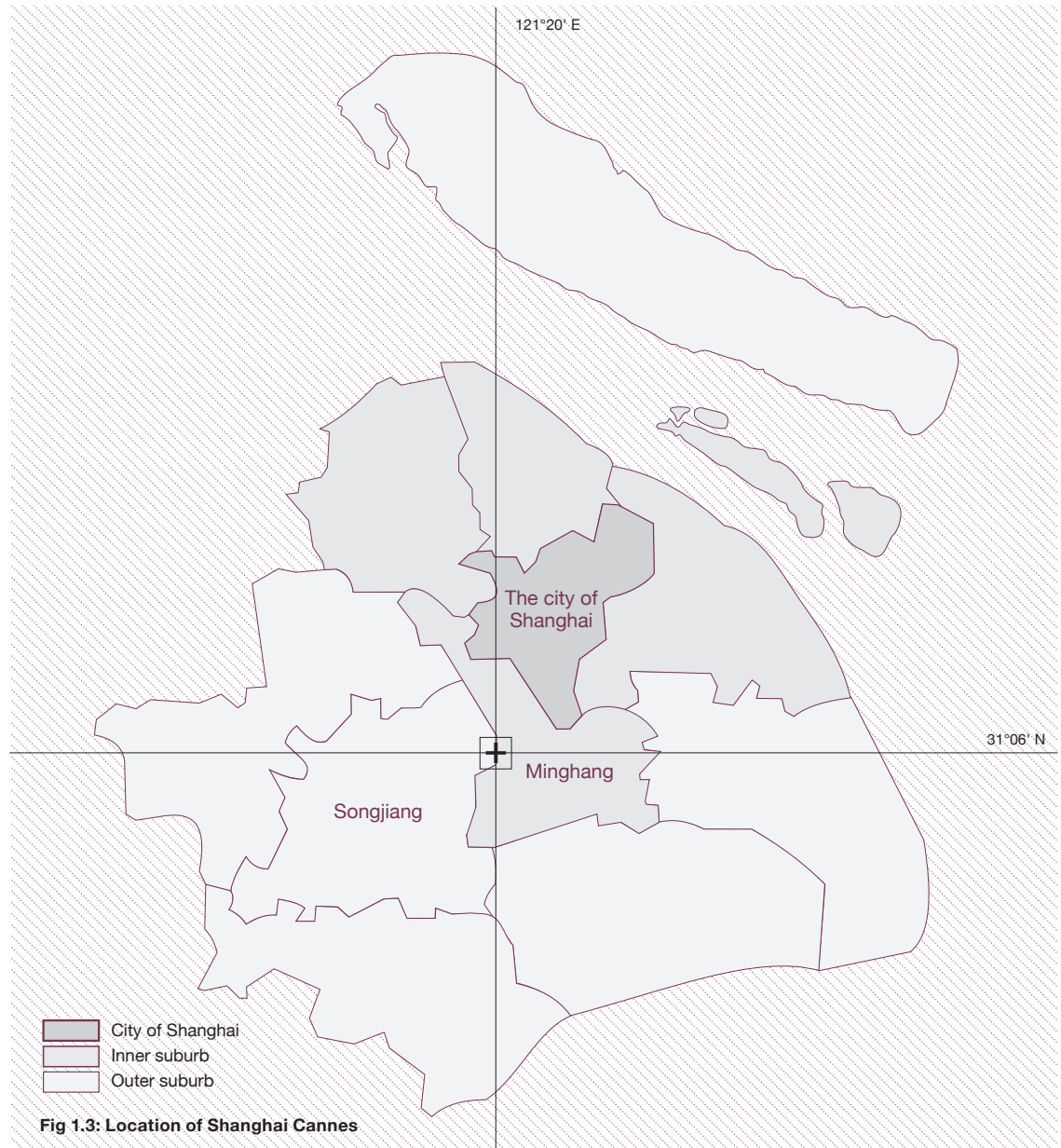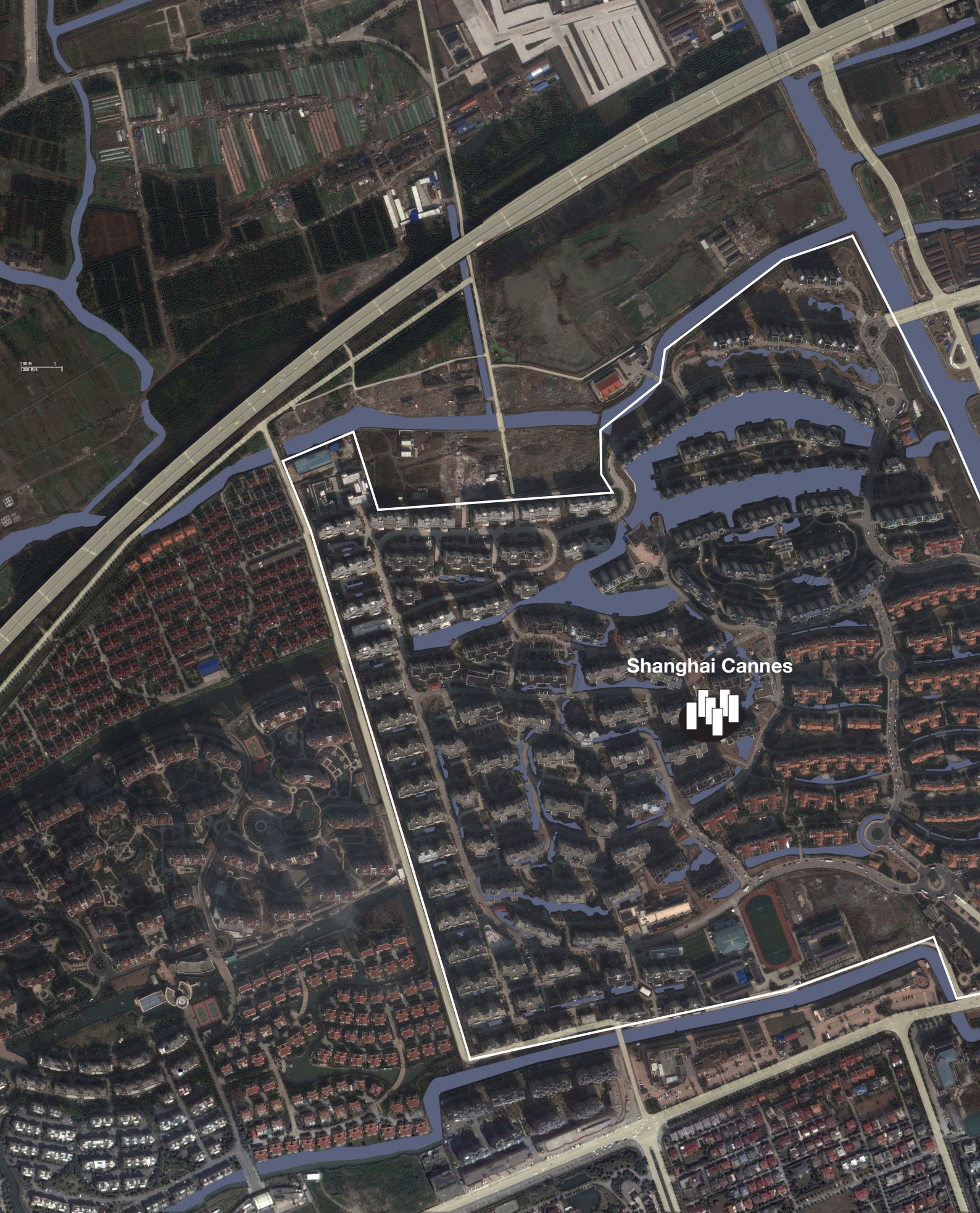
Shanghai Cannes

Basic information

Total area: 1km2
Construction area: 2,800,000m2
Household: 12,500
Resident: > 50,000
FAR: 2.19
Green coverage: 35%
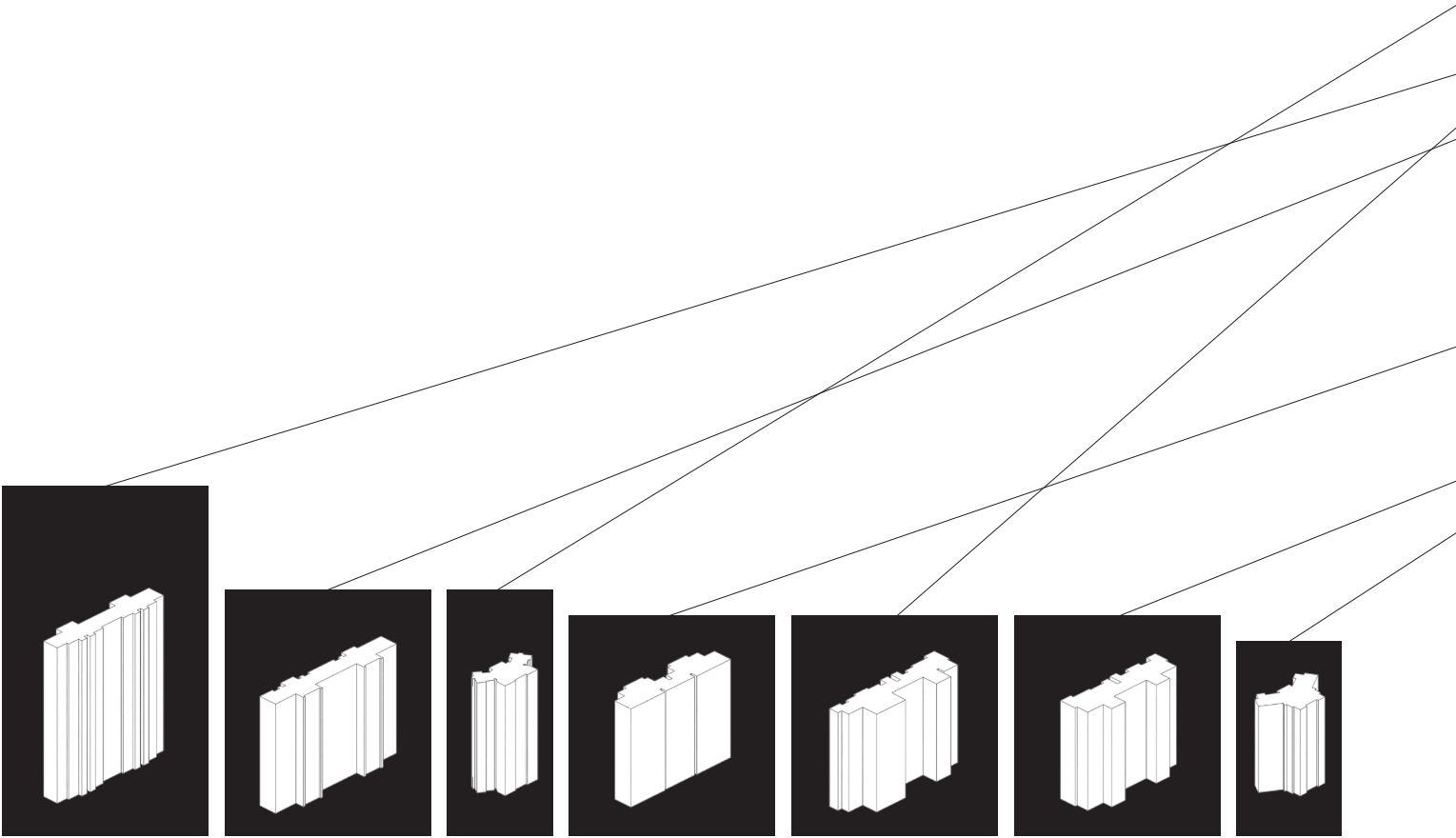
Fig 2.8: Typology of residential buildings
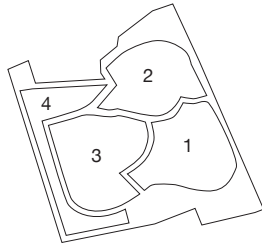
PHASE 4
Completion time: 2008
Building of 13-17 stories

Phase 2
Completion time: 2004
Building of 19 stories

Phase 1
Completion time: 2001
Building of 8, 11 stories

Phase 3
Completion time: 2006
Building of 13-17 stories

1.3 Motivation

Shanghai has doubled its housing stock over the past two decades, but most of those new homes are in soulless skyscrapers. Among these skyscrapers, suburban high-density residential demands adequate attention to its particularity. Suburban high-density neighborhoods have the similar architecture typology as the neighborhoods in central city, and the similar location as the suburban villa areas, but the combination of these two characteristics make them unique in forming the housing morphology of Shanghai. But when talking about them, we always notice the diversity, residential differentiation, suburbanization in a bigger scale and from a top-down view, never zoom in one single neighborhood to find out what's the real life inside it.
My motivation is to understand the real situations, problems and potentials of the high-density neighborhoods
in the suburbs of Shanghai.

Why Shanghai Cannes?
Shanghai Cannes is typical
Shanghai Cannes together with its surrounding area is a typical case representing the status of Shanghai's suburban residential.
This neighborhood had experienced four phases development. The first phase was completed in 2001, and the last phase was just completed and sold in 2009. So it can be seen, the development of Shanghai Cannes reflects a morden history of Shanghai's suburbanization.

Shanghai Cannes is unique
The biggest neighborhood in Shanghai
Shanghai Cannes has its strong unique identities. The most obvious one is that it's the biggest neighborhood in Shanghai.

Why Design as Politics (Graduation studio: In the Ghetto)
"The motives to design a street, neighbourhood, city or even a nation are obviously related to political views. Any group, nation or subculture builds its community on common grounds. Whether these communities are religious, cultural or economical, the political layer is what binds them and directs the acts of the group. "(In the Ghetto Studio Guide, 2010, p.1)

I find it impossible simply to apply theory and experience that have been relied on American and European countries, such as distance-density gradients, the natural operation of the property market, or the impact of economic expansion. These forces play their part, but in a very specific historical and political context(Zhou and Logan, 2008) of Shanghai and China. So I think Design As Politics studio can guide me in understanding the role of city politics in urban planning and how to get my objective based on the local political condition.

1.4 Problem statement

Turning suburban areas into satellite towns is in a position to represent features of international metropolis suburb of 21st century in fostering industry, increasing employment and forming regional economic growth in Shanghai(Zhou and Logan, 2008) However, in the respect of dwelling, today the problem is, confronting the upgrading suburbanization of urban population and immigration rush, the suburban high-density residential in Shanghai seems to get into scrapes by problematic living environment and increasing social segregation.

My project location Shanghai Cannes - a typical case of Shanghai suburban high-density neighborhood, can be looked as a ghetto. It's surrounded with a huge villa zone, and spatially separated from the other urban area by infrastructure barriers. Nevertheless, **the main problem of Shanghai Cannes is not the spatial segregation between the ghetto and its surrounding areas, but the growing social segregation inside the ghetto itself.**

The social segregation in Shanghai Cannes are partly caused by the informalization and user-transformation of dwellings. As this neighborhood have seen a wave of informal transformation, the unexpected mix living conditions raise the conflicts between residents from different social groups.

On the other hand, Shanghai Cannes physically faces the problem in hard traffic towards downtown and weak accessibility to local resources while lacking living facilities inside the huge neighborhood itself. Since 2009, with the development of surrounding infrastructure, Shanghai Cannes are trending to have a more connective role to the city by car. But fast accessibility with cars doesn't means solving the traffic problem of the neighborhood completely. It even poses a threat to weaken social communication between the car-owners and the people who depend on public transportation.

In summary, social segregation shows a dramatic rise inside Shanghai Cannes with the the socio-spatial dynamics described above. Although the surroundings looks to be on the upswing, the huge Shanghai Cannes itself is slipping further away from a harmonious and liveable neighborhood.

Fig 1.5: Multiscale segregation of suburban high-density neighborhood in Shanghai
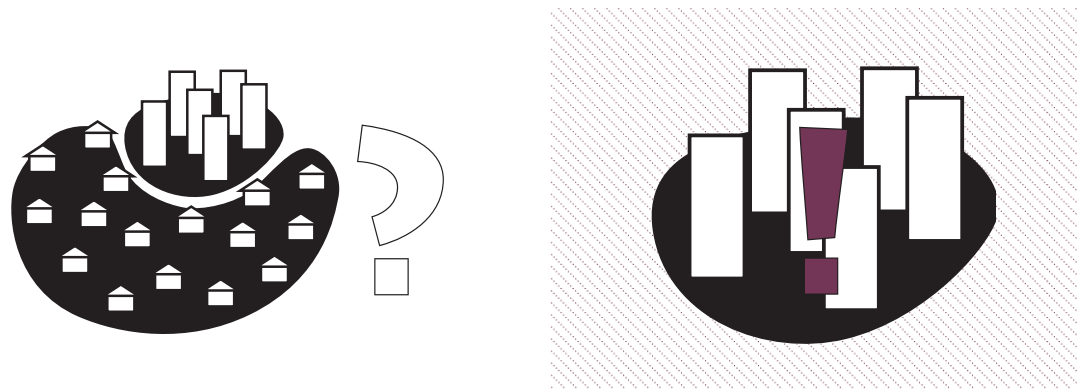
1.5 Aims

The aim of the project is to promote social interaction for residents living in Shanghai Cannes and make it a more livable neighborhood. There are three goals to achieve in the project:
- create a more convenient living environment
- find a better solution of the informal settlements
- revitalize the neighborhood life and encourage social interaction

The future vision in my project is to create a living environment in harmony with human needs and goals in Shanghai Cannes. In detail, this project will focus on how to transform the problematic suburban high-density neighborhood into a more social interactive one, which can not only meet the social and spatial requirement of people from different economic and social background, but also provide opportunities for people to get better communication and develop the resource-sharing interpersonal relationship among them. A flexible model will be proposed based on the case of Shanghai Cannes, which will provide the solutions for other suburban high-density neighborhood revitalization in Shanghai.

1.6 Research Question

Main research question

How to facilitate social interaction on different scales in Shanghai Cannes by revitalizing the public space?

Creating opportunities for greater social interaction within the neighborhood can be a way to improve the problem of Shanghai Cannes and make it a more livable neighborhood. This may be applicable at different scales. As high rise living limits the communication inside the building, therefore, the public space plays a more crucial role in social interaction. How to design public space that facilitate social interaction on different scales in Shanghai Cannes is the main question to discuss in the project.

> **Facilitating social interaction in Shanghai Cannes**
> Social interactions provide residents living in a community with knowledge about their fellow residents and social structure. This in turn helps to build trust between residents, allows for exchanges to take place and creates social network.(Williams, 2005)
> In this project, facilitating social interaction is aimed to establish and enlarge the circles of acquaintance among the residents, and support social communication and exchange in Shanghai Cannes, by spatial intervention and livable programs.

Sub-research questions

1 What is the current physical state of Shanghai Cannes?

This question includes two aspects: the physical context of Shanghai Cannes and physical condition inside the neighborhood. The former is relevant to possibility of the future role of Shanghai Cannes on urban scale and its relationship with the surrounding area, which will influence my strategy on a bigger scale. The later is to find out the problems and potentials of current living environment of Shanghai Cannes, which will guide the neighborhood regeneration design in my project.

2 What is the current social state of Shanghai Cannes?

This question is about the current social networks and status of social interaction in Shanghai Cannes. In order to make a strategy based on reality, it is important to know what kinds of social interaction happen in Shanghai Cannes and how they work now.

Connecting the two sub-research questions described above may tell the relationship between people's social behavior and the environment factors such as territory, density and the design of space in Shanghai Cannes. When the spatial requirements of social interaction are better understood, thoughtful spatial planning and neighborhood design may be possible in my project.

1.7 Relevance

Social relevance

The project site Shanghai Cannes is a typical high-density neighborhood in the suburbs of Shanghai, which is suffering from socio-spatial problems. How to solving the problem and give quality life to the residents is a practical question have to be answered. This is the core meaning of the project. Furthermore, as Minhang district is ambitious to form commercial and business center near Shanghai Cannes, this neighborhood will no doubt have the necessity to been upgrade to coordinate the surrounding development. This project is also valuable in proposing sustainable ways to reorganize the relationship between Shanghai Cannes and its surroundings. Last but not least, this project work on finding a better solution of the informal settlements, which has significance to the practical issue in migrant settlement in Shanghai.

Scientific relevance

Consideration of living problem in Shanghai Cannes is helpful to find a sustainable way for the development of high-density neighborhood in the suburbs of Shanghai. In my project, a paradigm will be proposed based on the case of Shanghai Cannes, which will provide the solutions for suburban high-density neighborhood revitalization. Besides, as this kind of neighborhoods is unique in forming the housing morphology of Shanghai, understanding the real situation, problem and potential of such a neighborhood is crucial in the research, planning and design of suburban residential.

1.8 Methodology

THEORY STUDY

SITE ANALYSIS

RESEARCH

METROPOLITAN SCALE

THE ROLE, POTENTIAL AND GENERAL IDENTITY OF SUBURBAN HIGH-DENSITY NEIGHBORHOOD UNDER THE SUBURBANIZATION OF SHANGHAI

FUTURE ROLE, POTENTIAL AND UNIQUE IDENTITIES OF SHANGHAI CANNES

Literature review:
a. suburban development
b. population diversity
c. neighborhood differentiation

Mapping:
a.urban expansion in Shanghai
b. the proccess of suburbanization

Case study: compare Shanghai Cannes with the other suburban high-density neighborhoods in Shanghai

URBAN (DISTRICT) SCALE

PRINCIPLES OF SUBURBAN HIGH-DENSITY NEIGHBORHOOD PLANNING

relationship between site and its context

ANALYSIS OF URBAN CONDITION SURROUND SHANGHAI CANNES

Literature review:
a. distance-density gradients
b. suburban neighborhood planning/design principles
c. high-density neighborhood planning/design principles
d. specific historical and political context of Shanghai

Case study

PHYSICAL STATE: SPATIAL ANALYSES ON DIFFERENT SCALES

NEIGHBORHOOD SCALE

GROUPS OF BUILDING SCALE

THEORY ON THE RELATIONSHIP BETWEEN ENVIRONMENT AND HUMAN BEHAVIOR

spatial problem and quality inside neibhborhod (relate with the theme of social interaction)

SOCIAL STATE: MAPPING OF CURRENT SOCIAL NETWORKS

BUILDING SCALE

analysis the classification of residents groups, their lifestyle and the conflict between them

HOUSING UNIT SCALE

Literature review: environment and human behavior
Case study: neighborhood design for social interaction

Site visit, interview, mapping

Fig 4.1: Framework of methodology

SHANGHAI CANNES

SUBURBAN HIGH-DENSITY
NEIGHBORHOODS

METROPOLITAN SCALE

FLEXIBLE REVITALIZATION
APPROACH FOR SUBURBAN
HIGH-DENSITY
NEIGHBORHOOD IN
SHANGHAI, BASED ON THE
CASE OF SHANGHAI CANNES

URBAN (DISTRICT) SCALE

PROPOSAL FOR THE NEW RELATIONSHIP
BETWEEN SHANGHAI CANNES AND ITS
SURROUNDING AREA

NEIGHBORHOOD SCALE

GROUPS OF BUILDING SCALE

PUBLIC SPACE
STRATEGY
FOR SOCIAL
INTERACTION

GROUP LEASE
REGULATION
SYSTEM

BUILDING SCALE

HOUSING UNIT SCALE

STRATEGY/DESIGN

1.9 Schedule

SCIENTIFIC STUDY

The role, potential and general identity of suburban high-density neighborhood

Principles of suburban high-density neighborhood planning

The relationship between environment and human behavior

SITE ANALYSIS

Future role, potential and unique identities of Shanghai Cannes

Analysis of urban condition surround shanghai cannes

Analysis the classification of residents groups, lifestyle and the conflict

STRATEGY / DESIGN

Proposal for the new relationship between Shanghai Cannes and its surrounding area

Public space strategy for social interaction

Group Lease regulation system

Flexible revitalization approach for suburban high-density neighborhood in shanghai, based on the case of shanghai cannes

Timeline: 2010/9, 10, 11, 12, 2011/1, 2, 3, 4, 5, 6

Phases: P1, P2, P3, P4, P5

RESEARCH — SITE ANALYSIS — STRATEGY — DESIGN — EVALUATION
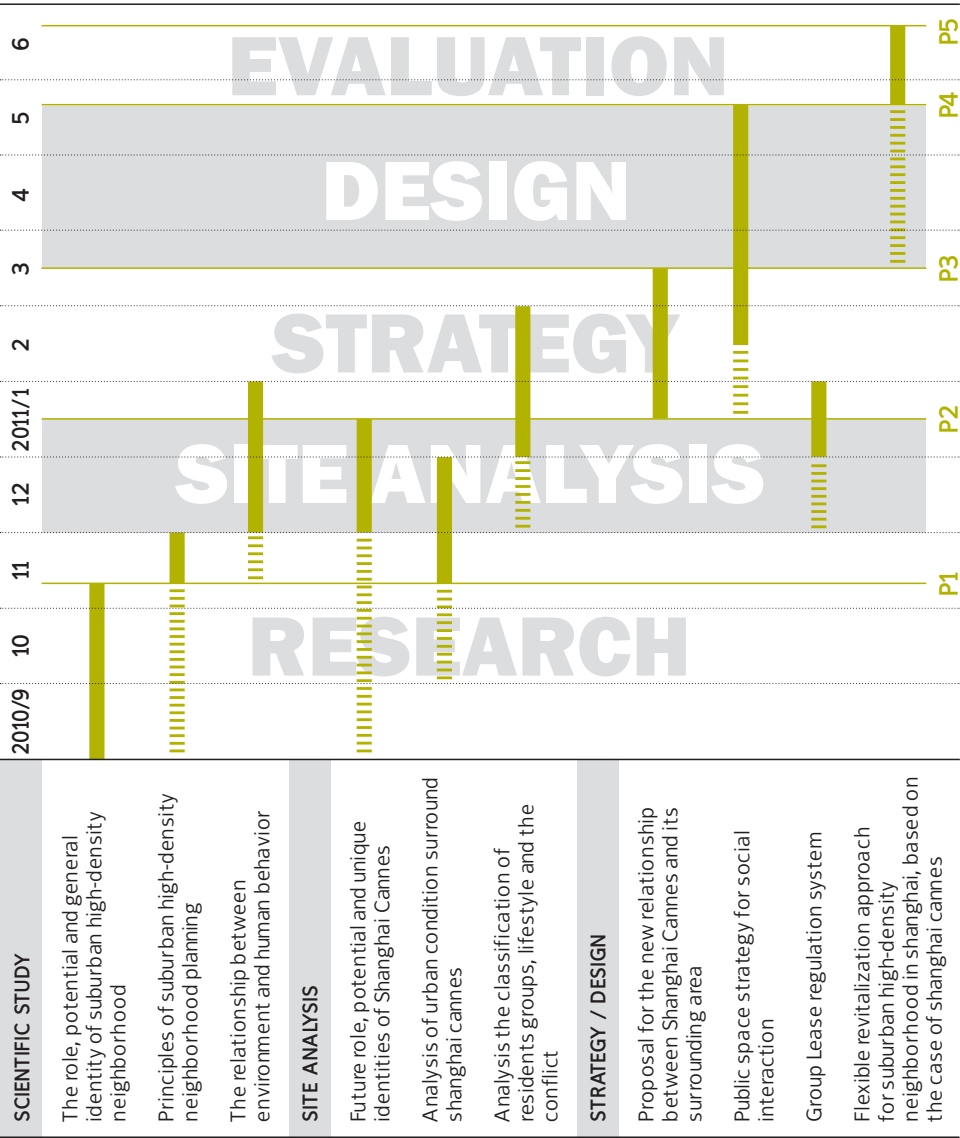
Fig 4.2: Project Schedule

Chapter 2
Physical state

2.1 It is a ghetto

"Ghetto was originally used in Venice to describe the area where Jews were compelled to live. A ghetto is now described as an overcrowded urban area often associated with a specific ethnic or racial population; especially because of social, legal, or economic pressure." (Definition from the Merriam-Webster Online Dictionary)

Shanghai Cannes is a ghetto, that can be supported by the following reasons:

Administrative division

Shanghai cannes officially belong to the minhang district, but spatially more close to Songjiang district because of the railway barrier. Because neither of district governments want to take responsibility of this boundary area, Shanghai Cannes used to be in an ignored corner of urban development.

High-density neighborhood surrounded by huge villa area

Shanghai Cannes as a high-density neighborhood is located at the boundary between inner suburb and outer suburb of Shanghai. The residential in outer suburb are usually low-density. Next to Shanghai Cannes, there is one of the biggest villa area in Asia. The social class of Shanghai Cannes (working class and lower
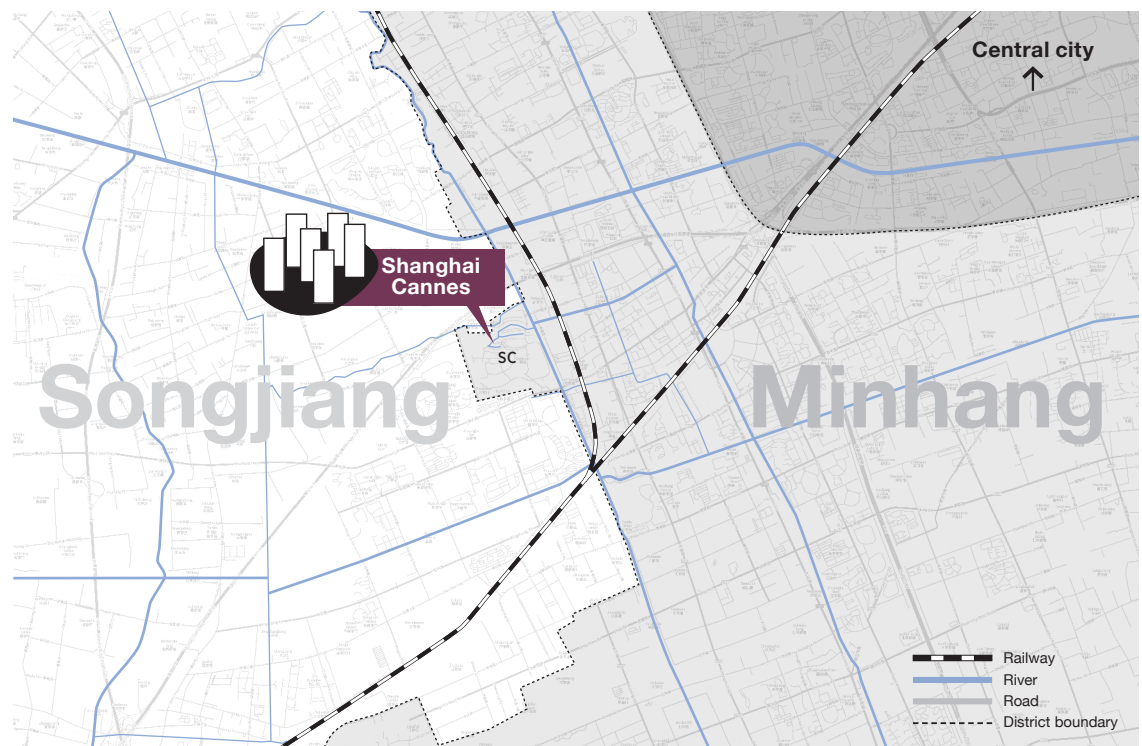

Fig 2.1: Administrative division of Shanghai Cannes

Fig 2.2: Shanghai Cannes and villa area

middle class) are completely different from that of the surrounding villa area (upper middle class), which means Shanghai Cannes is associated with a specific population in this area.

Spatially isolated by infrastructure barriers

Shanghai Cannes is surrounded by 3 traffic infrastructure, namely railway towards Hangzhou in the east busy Xinsong Road in the south and G60 highway in the north.

Railway - The railway is the strongest barrier in this area. It is also the boundary between Songjiang and Minhang District.

Xinsong Road - It is one of the most important roads connecting Songjiang and Minghang District to the central city of Shanghai. It is quite a busy road that the congestion haven not been solved for 8 years, and with the upgrade of suburbanization, it is likely to face more pressure. Definitely it is a barrier to Shanghai Cannes.

G60 highway - it used to be a strong barrier, but now the situation have changed because of a elevation project.
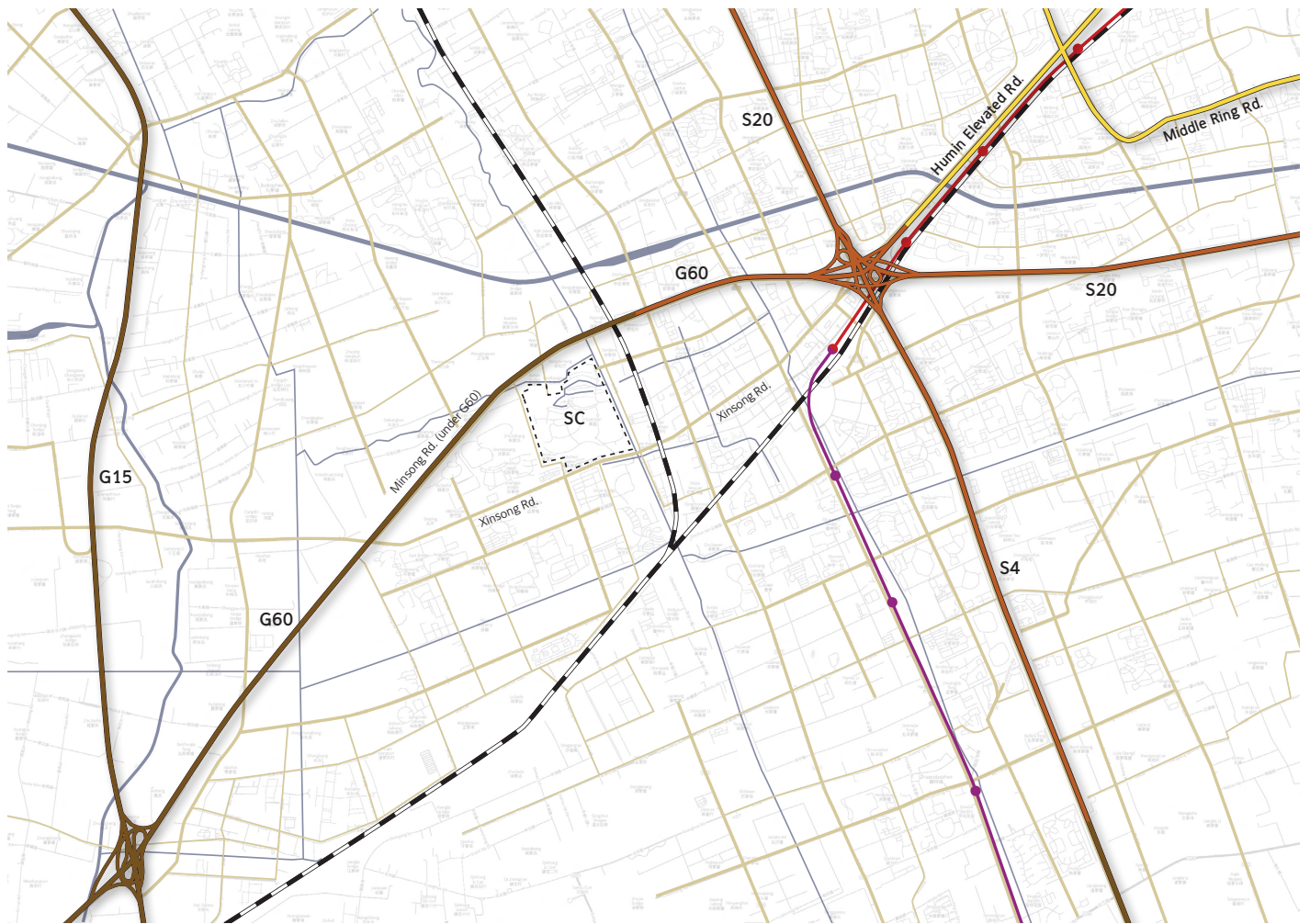
Legend

- **▬▬▬** Railway
- **▬▬▬** Highway
- **▬▬▬** Highway(Toll road)
- **▬▬▬** Elevated fast road
- **▬▬▬** Road
- **▬▬▬** Metro line 1
- **▬▬▬** Metro line 5
- **●** Metro station
- **▬▬▬** River
- **▼** Gate of shanghai cannes

Fig 2.3: Infrastructure arround Shanghai Cannes

The experience while trying to enter the extremely busy Xinsong Road
Photo by author

As one part of Xinsong Road, the tunnel across the railway is always congested. Sometimes, cars even drive on the bike path.
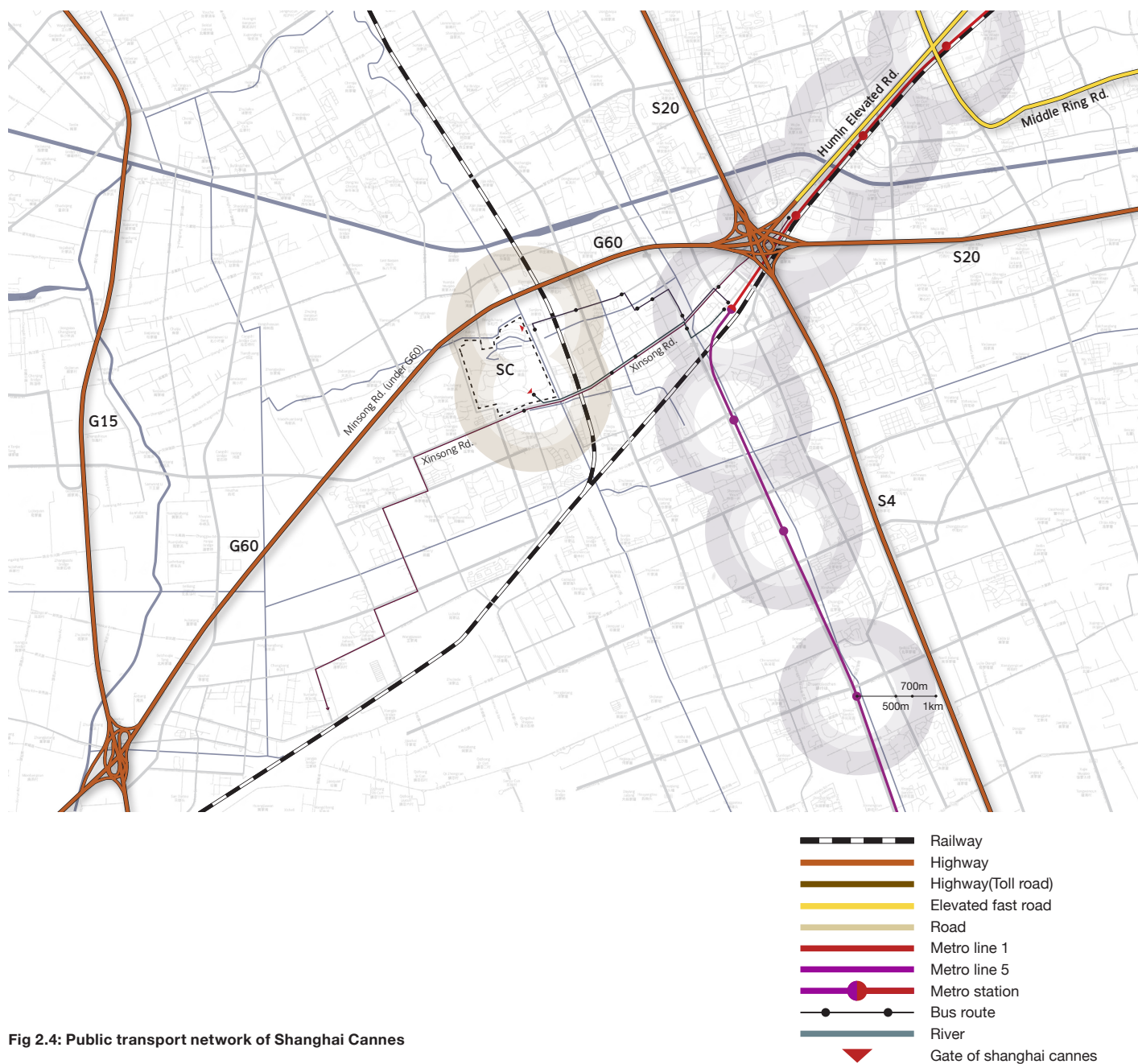*Photo by author*

Legend:

- ▬▬▬ Railway
- ▬▬▬ Highway
- ▬▬▬ Highway(Toll road)
- ▬▬▬ Elevated fast road
- ▬▬▬ Road
- ▬▬▬ Metro line 1
- ▬▬▬ Metro line 5
- ●▬ Metro station
- ●—●—● Bus route
- ▬▬▬ River
- ▼ Gate of shanghai cannes

Fig 2.4: Public transport network of Shanghai Cannes

Hard public transportation situation

Shanghai Cannes is locate to the west of No. 1 metro line station with a distance of 3 kilometers. As more than half of residents are working class people who can not afford a car, they are highly dependent on this metro line to get into city. However for the public transports (bus), this 3 kilometers is a far distance to arrive, because of the congestion though Xinsong Road.

2.2 New conncetion

G60 reconstruction project
In the end of 2009, G60 highway (formerly called Shanghai-Hangzhou Expressway A8) was elevated. The G60 surface road (Minsong Road) expansion was completed in the end of 2009, whereas the 2.47-kilometer section from the western Beizhugang to the eastern Xizhuan Bridge is open right now.
With G60 highway being reconstructed, the surface road in Minhang is at the same time being expanded. This will greatly ease heavy traffic flow in the western part of the district and set up a quick, convenient traffic route linking Minhang, the city center and expressways like the S4 (Xinzhuang-Fengxian-Jinshan) and S20 (Outer-Ring Road).
The northern tip of Xinfu Road is extended to connect with the G60 surface road (Minsong Road). This enables residents living in Xinsong area, especially Shanghai Cannes to drive directly to the G60 without passing the crowded Xinsong Tunnel.
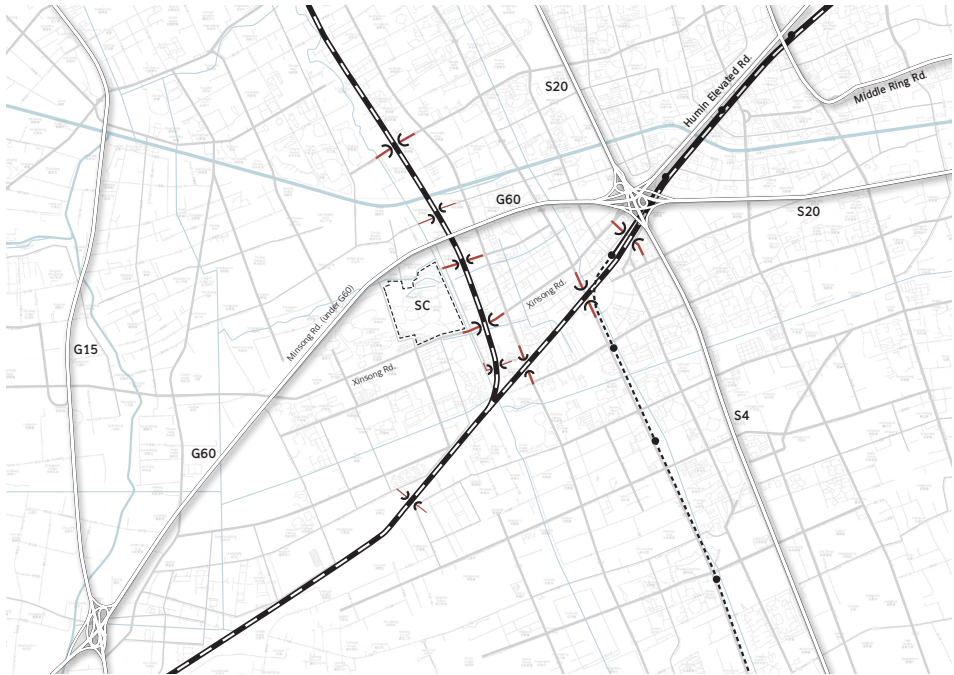
Fig 2.5: The elevated G60 and Mingsong Road
*Photo by author*

Before 2010

Now

	Highway barrier
	Elevated highway/fast road
	Railway barrier
→ ←	Tunnel

Fig 2.6: Infrastructure barrier of Shanghai Cannes

G60 highway is no longer an infrastructure barrier to Shanghai Cannes after the elevation construction. And the open of its surface road (Minsong Road) highly improve the accessibility of Shanghai Cannes by car.

Before 2010
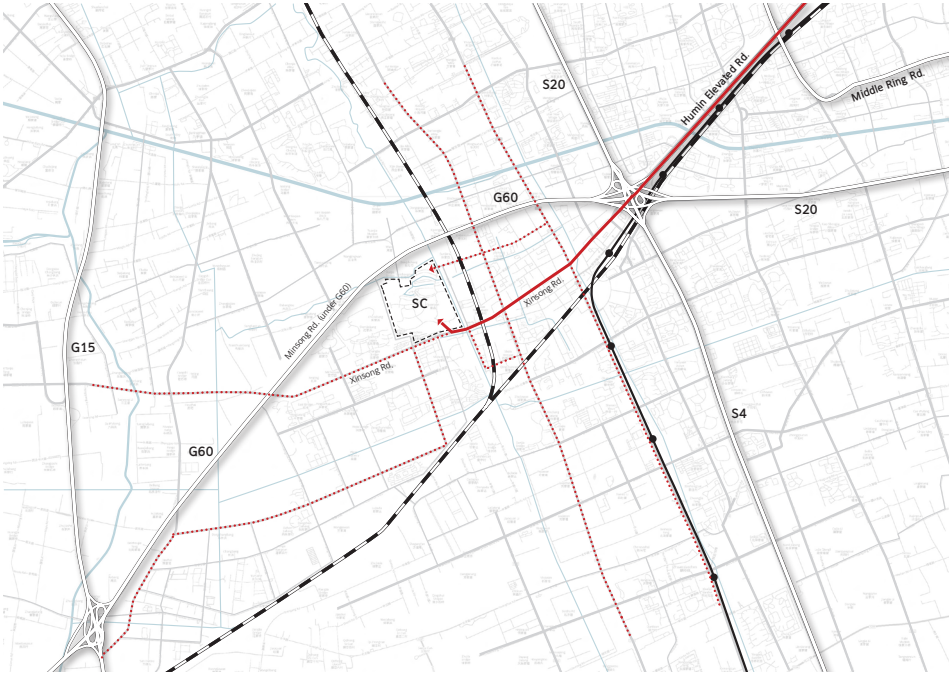
Now

Primary access road   ———
Secondary access road ·············

Fig 2.7: Traffic accessibility of Shanghai Cannes

Fig 2.8: New infrastructure projects arround Shanghai Cannes

1

Xinsong Road (tunnel) Widen Project

(from Xinfu Road to Xihuan Road)
Construction period: 2 years (2010 to the end of 2012)
Length: 0.569 km
Road classification: urban sub-arterial road
Red line width: 27 m
Design speed: 40 km/hr
Section: 4 fast lanes and 2 slow lanes (current section: 2
fast lanes and 2 low lanes)

2

Xinsong Road Repair Project

(from the district boundary to western Beizhugang)
Construction period: 1/11/2010 - 31/6/2011
Length: 0.321 km
Road classification: urban sub-arterial road
Section: 2 fast lanes and 2 slow lanes , add an extra slow
Xinsong Road Repair Project
 (from Xihuan Road to Xindong Road)
Construction period: 1/11/2010 - 31/6/2011
Length: 0.968 km
Road classification: urban sub-arterial road
Section: 2 fast lanes and 2 low lanes

**Widening construction on Xinsong Road
in front of the south gate of Shanghai Cannes**
Photo by author

3

Future infrastructure project:

Minjia Elevated Road (above Xinfu Road)

Plan of Minjia Elevated Road
Source: Shanghai Highway Administration

2.3 Conclusion

With the development of surrounding infrastructure, Shanghai Cannes are trending to have a more connective role to the city by car. But fast accessibility with cars doesn't means solving the traffic problem of the neighborhood completely. It even poses a threat to weaken social communication between the car-owners and the people who depend on public transportation.
Upgraded urban roads provide fast accessibility by car, but not really solve the traffic problem for people who rely on public transports. Residents still have to walk a long way to take the bus to the metro station. For most the working class residents in Shanghai Cannes, these developments are only in urban scale, and lack a deeper connection to the neighborhood scale.

In this project, how to transform the relationship between Shanghai Cannes and surrounding urban fabric, in order to make residents benefit from urban scale development, will be an important issue in the top-down strategy.

Chapter 3
Social state

3.1 Resident structure

Shanghai Cannes is a neighborhood designed for one single target group, namely lower middle class family with typical household sizes in Shanghai (mainly 2 to 5 persons per household). But actually living in these neighborhoods, residents are from different socio-economic backgrounds. The table below (Fig 3.1) shows the resident structure of Shanghai Cannes. In Shanghai Cannes, we can find a mix living situation of lower middle class and low-income working class (mostly migrant workers). According to their different living states, this neighborhood is split into formal and informal camps.

In the following sections of this chapter, this coexisting situation, including its quality and problem, will be discussed in detail.
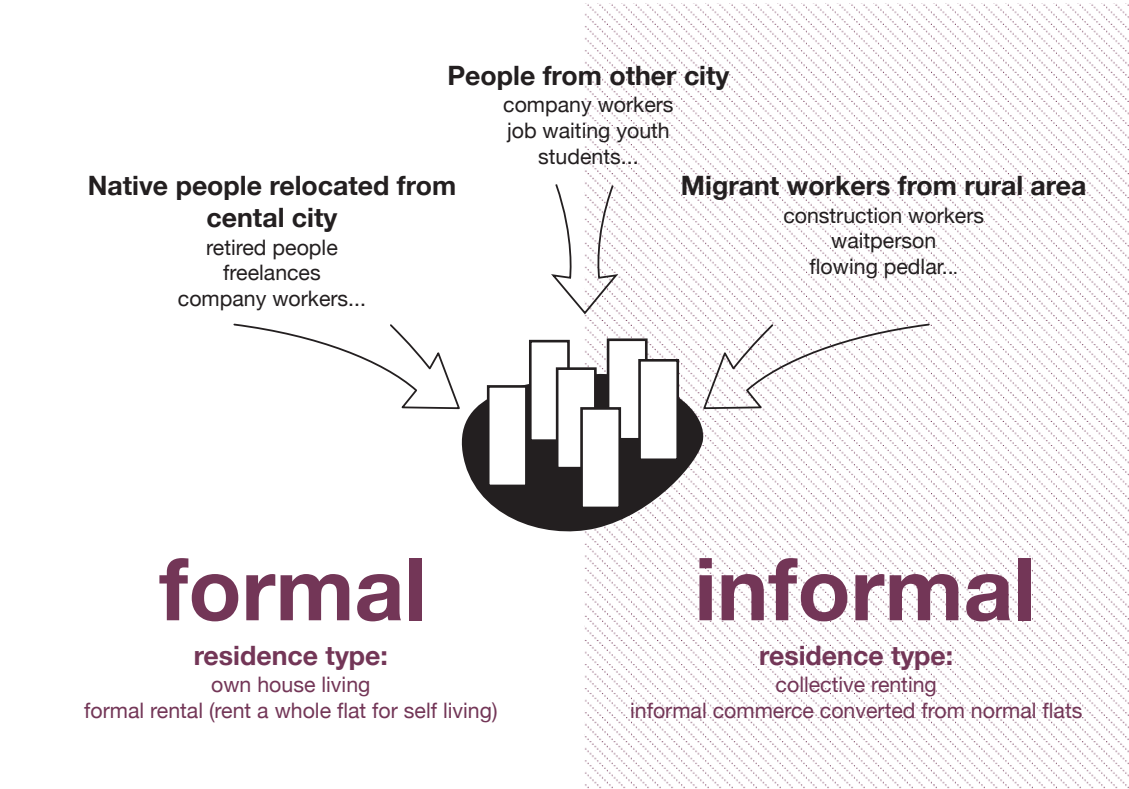
People from other city
company workers
job waiting youth
students...

Native people relocated from cental city
retired people
freelances
company workers...

Migrant workers from rural area
construction workers
waitperson
flowing pedlar...

formal

residence type:
own house living
formal rental (rent a whole flat for self living)

informal

residence type:
collective renting
informal commerce converted from normal flats

Fig 3.1: Resident structure of Shanhgai Cannes

3.2 Informal transformation of dwellings

Collective renting

Collective renting, which means a flat is splited into many tiny rooms and lease to a lot of people.
Some people rent such apartment are who just come out university and don't want to depend on their families. They don't have much money to rent a bigger one. Mostly other renters are migrant workers. They are usually poor farmers who leave the countryside to find jobs in cities. Collective renting for them is the only affordable way to live in Shanghai.
Shanghai Cannes is the biggest neighborhood in Shanghai. Referring to collective renting problem, it's also a conspicuous example. Almost 15% apartments in Shanghai Cannes are rented in the way of collective renting (Fig 3.3).
Whether collective renting is legal or illegal, is still a controversial problem. It's not allowed under the local lease rule of Shanghai. But the present law makes no provision for this. The government of Shanghai has embarked on regularizing it, but still do not have effective methods. Because the core of the problem is, in Shanghai, social housing and other affordable housing isn't nearly enough for poor people. So this kind of living status is probable to keep existing in the coming years.
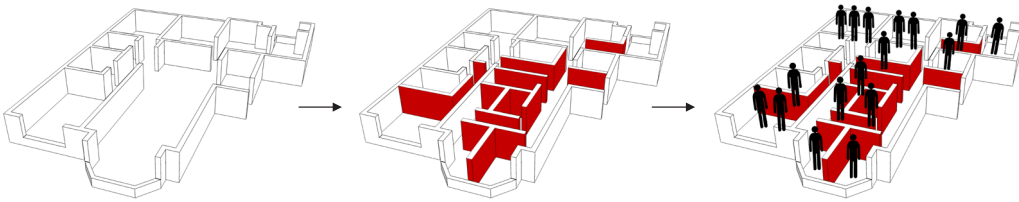

Fig 3.2: Conversion into collective-renting flats

Informal commerce converted from ground floor flats

Another informal type of living is that people rent ground floor flats, then convert them into commercial use. Usually the informal commercial operators still live in the flats and their living conditions are not better than collective renting. It is illegal according to the Chinese property law, but still a widespread phenomenon in China.
In Shanghai Cannes, this situation is largely a consequence of collective renting (Fig 3.4, Fig 3.5). Because cooking is prohibited in a collective-renting flat, so the renters need dine out every meal. This provide market opportunities for informal eateries and grocery stores. And small barbershops and shops for daily necessities are also popular among collective renters. However in order to meet the requirement of cheap price, the products they sell are usually with low quality, that make them rarely be accepted by formal residents with higher hierarchy of needs. But there are some exceptions, for example, formal residents also buy fresh vegetables and fruites in informal greengrocers, and some flats converted into recreational function such as poker and chess rooms are mainly supported by formal residents.

Fig 3.3: Coverage rate of collective renting

Legend:
- Eeatery
- Grocery/convenience store
- Cafe/bar
- Greengrocer
- Hardware store
- Barbershop
- Cleaners
- Repair shop
- Beauty/massage parlor
- Chess&poker room
- Pet care shop
- Print shop

Fig 3.4: Types of informal commerce

●	Collective renting support commerce	▮	>20%
○	Other commerce	▮	10-20%
		▮	<10%

Fig 3.5: Relation between informal commerce and collective renting

How to distinguish collective-renting flats and the normal flats? The answer is Balcony. - When we look at the collective-renting balcony, there are a lot of clothes hung to dry on air, much more than usual family do.
Photo by author

Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes

1. Small room rented by a youth
2. A collective-renting room for migrant workers
image source: http://www.bj.xinhuanet.com/bjpd_ezk/2009-11/04/content_18178883.htm
http://news.xinhuanet.com/society/2008-09/10/content_9890557.htm

3. A ground-floor flat is converted into a barber's shop and a convenience store
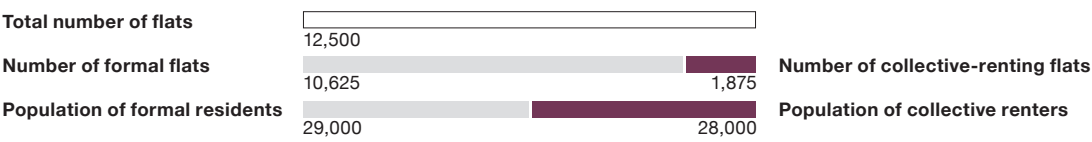**4. A greengrocer open in the yard**
Photo by author

3.3 Formal vs informal

The distribution of collective renting and informal commerce which are converted from ground floor flats in Shanghai Cannes, can be illustrated through a west-east section of the neighborhood (fig 3.7). Based on data collection, the overall rate of collective renting in Shanghai Cannes is around 15%, and almost 10% of ground floor flats are converted into informal commerce. Here we presume that the average number of people living in a collective-renting flat is 15, while Shanghai's average household size is 2.7 persons/household (Shanghai Bureau of Statistics, 2010), then we can get calculated populations of formal and informal camps, 29,000 and 28,000 respectively. The result shows that the formal and informal are evenly matched in population.

Total number of flats

12,500

Number of formal flats   **Number of collective-renting flats**

10,625   1,875

Population of formal residents   **Population of collective renters**

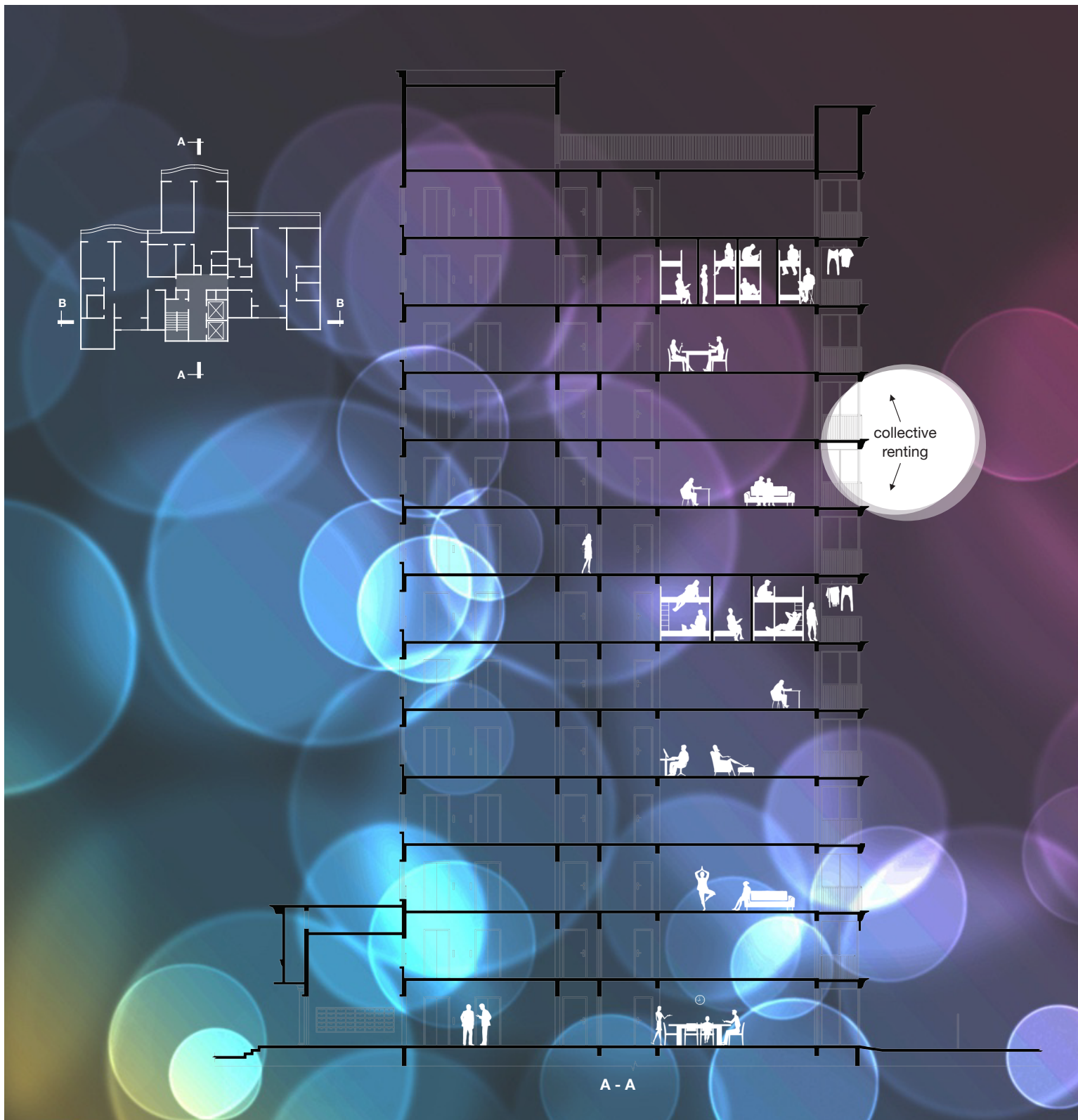29,000   28,000

Fig 3.6: comparison of formal and informal population
Source: the author

Fig 3.7: East-west section of Shanghai Cannes

15.3%

7.4% of ground floor flats

collective-renting flats
Informal commerce converted from ground floor flats

Ground floor flats
Other flats

collective renting
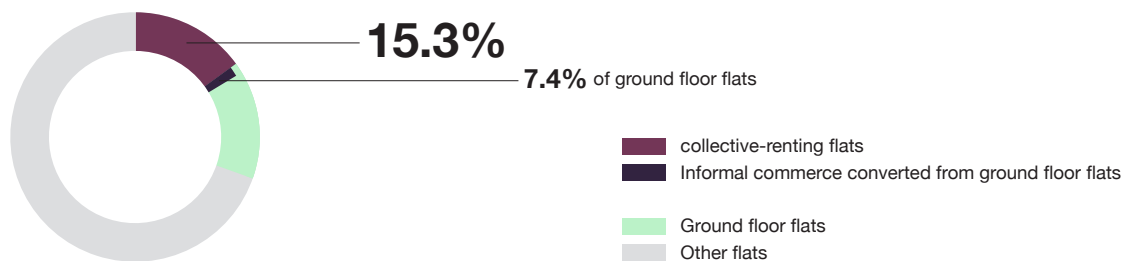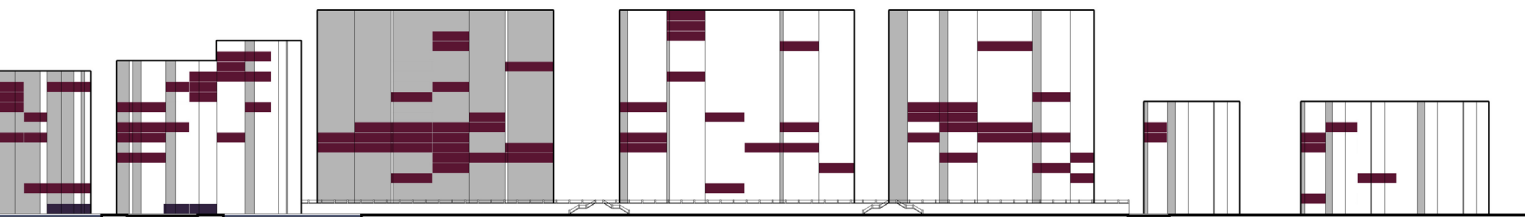
Fig 3.8: Section of Building No.95 in Shanghai Cannes - From the outside, the high-rise buildings in Shanghai Cannes all looks simple. But when we zoom in to one building ,we can find its complexity of mix living and mix use states.

A - A

Informal settlement collective renting →
10-20 person/flat
<8m2/person

Cooking is prohibited in a colletive-renting flat

collective renting

Informal commerce
Barbershop & grocery store converted from a ground falt →

B -B

Problem: conflict between formal and informal residents

As this neighborhood have seen a wave of informal transformation, the unexpected mix living conditions raise the conflicts between formal and informal residents.

From the standpoint of formal residents, collective renting cause the problem such as potential safety hazard, invasion of privacy and untidy public space.

Waste management and elevator safety are issues of tension, along with concerns that too many electrical devices being used at the same time and will be a fire risk. What makes matters worse, complicated spatial separation and low-quality finishing materials make collective-renting flats easily become firetraps.

Another problem is privacy. Shanghai Cannes actually have the gate control system. But because collective renters do not have the key, so they always find ways to prop the door open. Finally, the gate control system of all the buildings in Shanghai Cannes are abandoned. Other problems like dirty and noise also make the formal residents insufferable.

Regarding the informal commerce converted from ground floor flats, their low-quality products and poor environment are hard to attract formal residents. Instead, formal residents revolt at them because they make the neighborhood public space untidy.

For these reasons, formal residents are protesting to the district government that aim to evict informal residents. As a response, informal residents become sensitive to formal residents and trend to regard them as enemy neither.


Fig 3.9: Problem caused by collective renting - Left photo shows the littery letter boxes in the entrance hall of a residential building in Shanghai Cannes. It probably is a result of no gate control system and floating population.
Photo by author

If we do not have any intervention for this situation, the war between these two camps can get very intense. The situation have the possibility to change towards two extremes.

1. Formal residents come down hard upon the informal residence, finally the informal residents are evicted from Shanghai Cannes. Then these population will distribute to the other neighborhoods in this area and cause the same problem like Shanghai Cannes, otherwise become homeless in Shanghai. (fig 3.10)

2. Formal residents lost their confidence of the neighborhood, and intend to move out, then Shanghai Cannes totally become a ghetto of collective renting, which have seriously negative influence on the development of surrounding area.(fig 3.11)

Both of the above are dangerous. Therefore, how to find a balance between opposing interests of formal and informal camps, or how to achieve a win-win situation from this kind of mix living will be the key of the project.
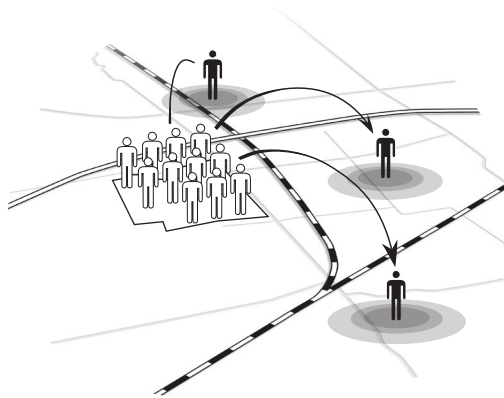
Fig 3.10:The first extreme - The informal residents are evicted from shanghai Cannes
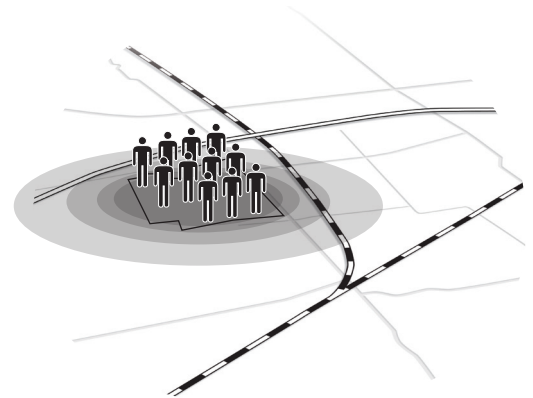
Fig 3.11:The second extreme - Shanghai Cannes totally become a ghetto of collective renting

Quality: providing affordable ways of living for low-income people

The appearance of collective renting, outwardly, is because of the economic pressure of low-income group, but in essence, is because of the insufficient social assistance and social housing provided by government. Under this context, Shanghai Cannes shows its quality in providing affordable ways of living for low-income people and migrant workers.

There are 150 million migrant workers in China, 11.5 percent of the total population. Shanghai is a major destination for Chinese migrant workers. There were 3.4 million migrant workers in Shanghai, according to the latest statistics.(Feng, 2006) Employment opportunities are an important attraction for migrants. Since most migrants come to Shanghai in search for work to augment agricultural income, they tend to base their locational decisions on where the jobs are.(Wu, 2005) Minhang district where Shanghai Cannes located, have developed large industry area in the process of Shanghai's industry relocation. So living in Shanghai Cannes, is a job-related decision of migrant workers. Therefore, moving out sometime means lose the job, because there is no other affordable way of living for them in this area, except collective renting in Shanghai Cannes.

3.4 Neighborhood activity: Hazard Light Action

Introduction of Hazard Light Action (fig 3.12)

Due to the terrible traffic situation, the buses travelling to and fro between Shanghai Cannes and Xinzhuang Metro station are usually crowded in the rush hour, and every morning the waiting line at the gateway of Shanghai Cannes is at least two or three hundred long.

In 2006, Shanghai Cannes Home Owners' BBS called on the car-owner residents to establish a volunteer team for giving their neighbors a ride to the metro station. At that time, over 30 car owners joined this team. They agreed, when they passing by the bus stop in the morning, they would turn on their hazard lights to signal the waiting people that they are willing to give a ride. Therefore, "Hazard Lights Action" become the name of this neighborhood activity. Every car of "Hazard Lights Action" had an identification card with its team number on it, which help people recognize them.

Then, impacted by this heartwarming action, many other car owners who didn't belong to the volunteer team, also turned on their hazard lights to help their neighbors.

But the morning sun never lasts a day.

Shanghai Cannes is located in Minhang district, where unlicensed taxis were severely punished, and passengers who reported an unlicensed taxi would be rewarded. In April 2007, a car owner (not belong to the volunteer team) who intend to help neighbors freely, was held by the police and punished on a charge of underground taxi business. Obviously, he had been entrapped by someone in his car. The sad story depressed all the "hazard lights action" drivers and made them start worrying their own interests which were not protected by law. Then the action seemed to draw to a close.

Until 2008, the activities of "Hazard Lights" appeared again. But this time, for self-protection, the car owners required passengers every time they got on to sign a paper as a proof of not an unlicensed taxi.

From 2009, because of the price increase of petrol and taxi, "Hazard Lights" activities and share cars among neighbors became popular. But Invariably they all observed one rule: only acquaintance, no stranger.

**Spring of neighborhood activities**

This case shows a fact that in Shanghai Cannes some problems caused by physical conditions have the possibility to be solved or improved by social intervention.

In my vision, "Hazard Lights Action" will be a spring of positive social activities, which can be used as a tool to revitalize Shanghai Cannes and also help to solve the problems such as hard traffic situation, lack of service.

And the rule of "only acquaintance, no stranger" is not a bad thing. Because among the acquaintances, there're more stable relationship, which makes the social activities more controllable and well-organised. But if we want use this kind of social activities as a tool to solve problem, we need to facilitate social interactions in the neighborhood first, namely to establish and enlarge the circles of acquaintance for the residents in Shanghai Cannes.

"Hazard Lights Action" started.
A a volunteer team with over 30 cars was established. (every car had an identification card with its team number on it)

A car owner(not belong to the volunteer team) who intend to help neighbors freely, was held by the police and punished on a charge of underground taxi business.

UNLICENSED TAXI !

2006 → 2007

April
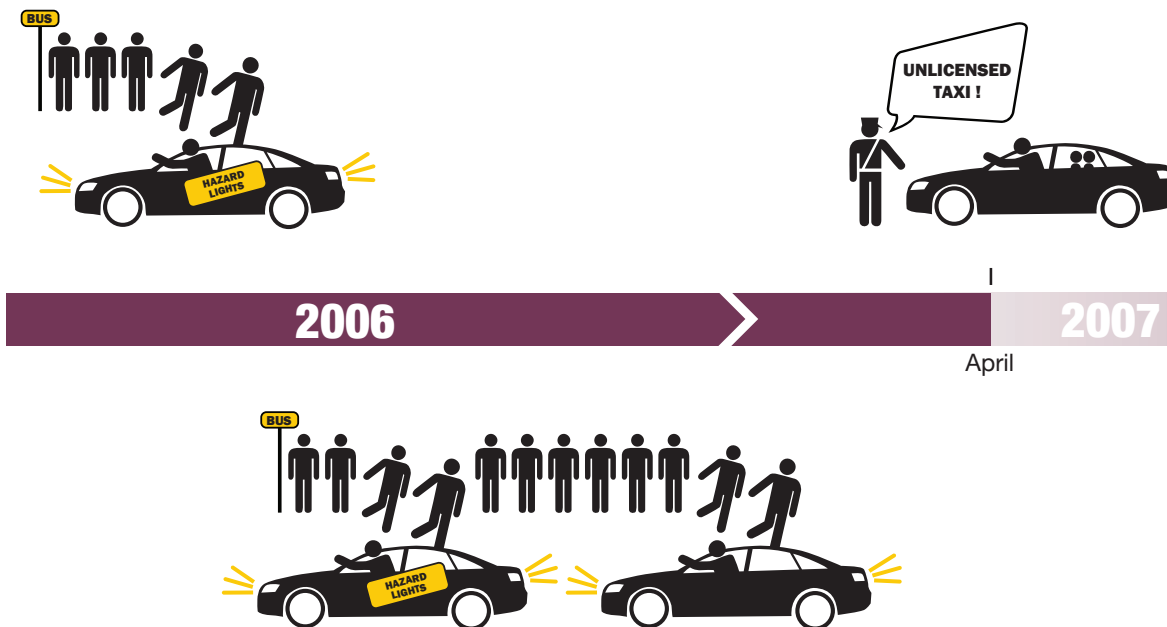
Impacted by this action, many other car owners who didn't belong to the volunteer team, also turned on their hazard lights to help their neighbors.

Fig 3.12: History of Hazard Light Action

The activities of "Hazard Lights Action" appeared again.
For self-protection, the car owners required passengers every time they got on to sign a paper as a proof of not an unlicensed taxi.

"Hazard Lights Action" activities and share cars among neighbors became popular. But Invariably they all observed one rule: only acquaintance, no stranger.

2008

2009 -

3.5 Conclusion

The conclusion of this chapter is that the informal mix living and mix use conditions in Shanghai Cannes show quality in providing affordable ways of living for low-income people, but also cause conflict among different resident groups. In the project, neighborhood strategy should mainly focus on how to achieve a living environment in harmony with people from different economic and social groups in Shanghai Cannes. On the other hand, this neighborhood already have a tradition of positive social activity such as Hazard Lights Action. It is a valuable quality of social interaction that can be strengthen by spatial intervention and attractive program in the project.

Chatper 4
Vision

Traditional lifestyle of Shanghai Linong
Photo from internet

4.1 Vision: rewake the sense of community

My vision of the project is to make Shanghai Cannes a more social connective neighborhood that provides strong community feeling for the residents, by facilitating social interaction on different scale.

In the early nineteenth century, European writers were worried about the breakdown of community as a result of industrialization and the emergence of new forms of social organization based on exchange and contract rather than status or kinship. By the end of the nineteenth century, American reformers were worried about the impact of urbanization, corporate and government bureaucracy, technical rationality, and other changes associated with modernity. Since the 1830s, urban reform in the United States has been concerned with restoring some aspect of older forms of community. Since the turn of the century, social scientists have focused on documenting the pathologies associated with urbanization. Since the 1960s, the concern for community has become almost a continuous refrain. (Brain, 2005) However, today, the sense of community is dying down in Shanghai's morden high-rise neighborhoods, such as Shanghai Cannes, through the loss of local neighborhood social interaction.

The new residential developments of Shanghai rely on high-rise building as a symbol of modern living, demolishing the prevailing low-rise housing, known as Linong housing, built in the early 20th century. People who have moved from Linong to high-rise when asked to compare their changed lifestyle, usually appreciate the good privacy, generous space, and better facilities in high-rise neighborhoods, but lament their loss of the "big warm family" of old Linong (Hammond, 2006). The residents live in old Linong built subtle social connections through the intense contacts of their shared lives. A vast range of social interaction encouraged the resource sharing activities in Linong, for instance, old people taking care of neighbors' children, pupils doing their homework together if who has a larger room.

Nowadays, Shanghai Cannes as a typical new-built high-rise neighborhood, where relocate the native people from central city, although facing the problem of social segregation relating with migrant settlement, still have the potential to rewake the sense of community of old Linong.

With an effective neighborhood regeneration strategy, Shanghai Cannes can even go further than old Linong.
Linong housing has its limitation on the scale of social interaction. According to the spatial form of Linong, there are less open space, and streets become the main sites for public life. People's social interactions mainly happen in the streets near their home. But in Shanghai Cannes, social interactions are possible to happen on multipal scale from residential building, streets, neighborhood public space to surrounding city area. Residents will have various options on where to have their social life and what kinds of social life.

4.2 Concept

Based on this vision, a concept (fig 4.1) is developed to lead the neighborhood regeneration strategy. This concept indicates the relation between physical environment and the goal of neighborhood cohesion. Regenerate the neighborhood environment to facilitate social interaction is helpful encourage the resource sharing activities in Shanghai Cannes, which not only increase the social cohesion, but also react upon the physical environment.

To explain more, we can use the example of existing social activity - Hazard Lights Action.
Now this activity follows the rule of "only acquaintance, no stranger". Because among the acquaintances, there are stabler and trustier relationship, which makes the social activities more controllable and well-organised.
However, if we want to use this kind of social activities as a tool to improve the living quality of Shanghai Cannes, we need to scale up the coverage rate of these activities in the neighborhood first, namely to establish and enlarge the network of acquaintance for the residents in Shanghai Cannes.
As a kind of interpersonal relationship, neighborhood relationship is cultivated by face-to-face interaction. Then the problems come back to the physical environment - Where social interactions happen, and what kinds of social interaction happen. Therefore, it is necessary to have intervention on upgrading the neighborhood living environment on different scale to provide seedbed for social interaction.
As an outcome, increased social connectivity will encourage resource sharing activities among residents. Hazard Lights Action is just one type of neighborhood resource sharing activity. If people find a way to discover their assets, there are various potential for resource sharing. The assets are not only material belongings such as car or house, but also include the non-physical factors such as time, knowledge, skill and so on. In Shanghai Cannes, the residents are mix with different socio-spatial background, which shows the possibilities of diversified resource sharing.
These activities can not only revitalize the neighborhood life, but also react upon the physical environment in some respects. For instance, Hazard Lights Action helps solve the problem of hard public transportation, which means the indirectly upgrading of physical condition of Shanghai Cannes.

Physical environment

Social interaction

Network of Acquaintance

Resource
sharing
activities

react upon

Hazard light actoin

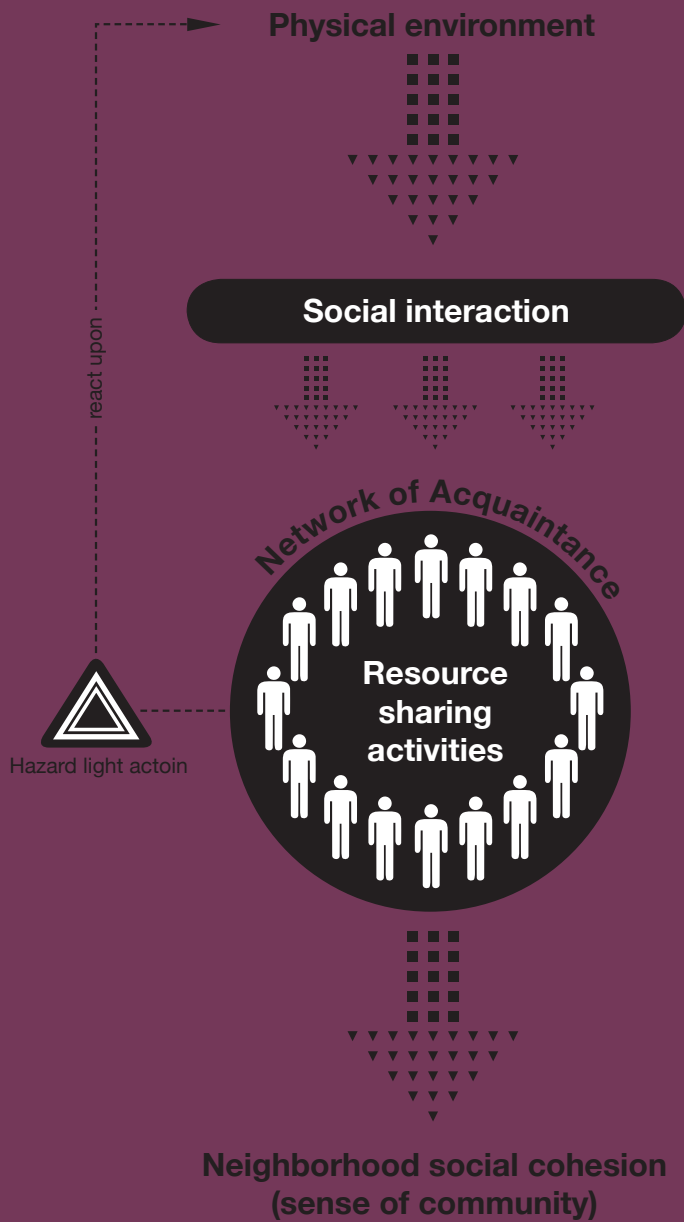**Neighborhood social cohesion
(sense of community)**

Fig 4.1: Concept diagram based on the vision

4.3 Theory support

My vision to rewake the community feeling in Shanghai Cannes such a suburban ghetto, is inspired from Jane Jacobs's study and the movement of New Urbanism, which also guide the neighborhood regeneration strategy and design in the project. The importance of neighborhood environment in facilitating social interaction is supported by a series of theory on the relation between environment and social behavior, which indicate the necessity of spatial intervention in my project.
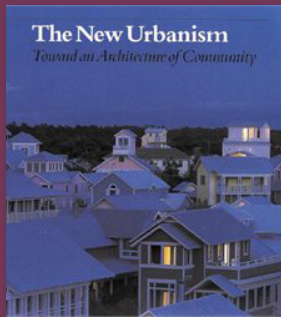
KATZ, P. 1990. *The New Urbanism: Toward an architecture of community,* Mcgraw-Hill Education
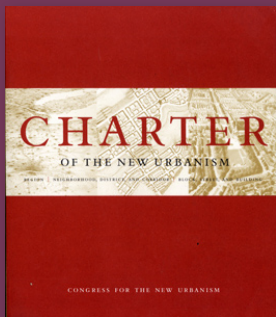
Congress of the New Urbanism (ed.) 1999. *Charter of the New Urbanism*, McGraw-Hill Professional
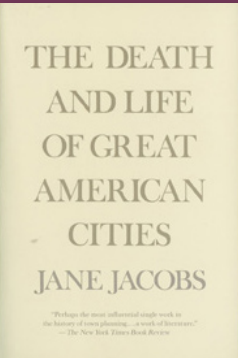
JACOBS, J. 1961. *The Death and Life of Great American Cities*, New York: Random House
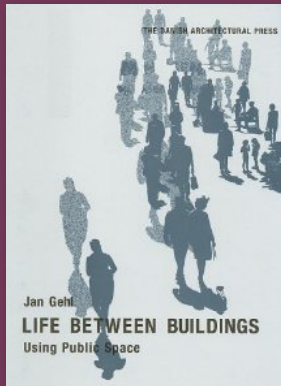
GEHL, J. 1968. *Life between buildings: Using public space,* Copenhagen: Danish Architectural Press
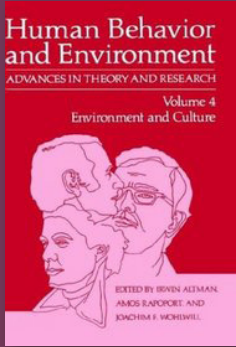
ALTMAN, I., RAPOPORT, A. & WOHLWILL, J. F. (eds.) 1980. *Human Behavior and Environment - Advances in Theory and Research,* New York: Plenum Press
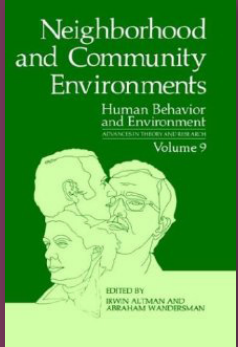
ALTMAN, I. & WANDERSMAN, A. (eds.) 1987. *Neighborhood and community environments*, Springer

Fig 4.2: Important books supporting the vision concept

I. Literature review on the relation between human behavior and environment

The following review will first cover the topic of personal space, crowding and territory behavior, which have been interested by researcher for a long time. And in this field, It has been indicated that two primary functions served by the use of space are regulation or control and communication (Aiello and Thompson, 1980). Then I will move on to specify the above theories in Chinese or Asian culture context. In the last part of this paper, the relation between spatial behavior and environmental design will be discussed in order to find some possibilities about the solution to the problem in my project.

1 Personal space, crowding and territory behavior

Research interest in the topics of personal space, crowding, and spatial behavior has last over a long time. One of the first systematic treatments of this domain was Edward T. Hall's The Hidden Dimension (Hall, 1966). In his book, Hall proposed that individuals from various ethnic and cultural backgrounds differ with their spatial behavior and suggested that these differences were reflective of different cultural norms governing the use of space within different society (Aiello and Thompson, 1980). As an social psychologist, altman is famous for his Social Penetration Theory, following this theory, he also looked at the relation between human behavior and environment, for example the research of crowding and its effect. Other researchers like Julius Fast, in his book, Body Language(Julius, 1970), personal space, territory behavior are talked as people's interactions with their environment. Such studies about personal space, crowding and territory behavior will be detailed in the following part.

Personal space

In 1969, polymath psychologist Robert Sommer proposed a durable concept of personal space, and defined personal space as "an area with an invisible boundary surrounding the person's body into which intruders may not come." (Sommer, 1969, p.26).
In other words, personal space refers to the preferred distance from other people that an individual maintains within a given setting. (Aiello and Thompson, 1980) How large a person's personal space need to be depends on things such as the relationship with the people nearby, emotional state, cultural background, and what the activity are happening. For strangers that you meet in a public room, the personal space could be as much as one metre. For close friends, it can be a lot less. (Julius, 1970) To identify and classify the distance people use as their personal space, Hall identifies four types of distances namely intimate, personal, social, public. It should be noted that distances can be different according to personality and environmental factors, since an unusual situation may bring people closer than they used to be. (Hall, 1966) For the 4 types of distance, Hall provide some reference data as following:

Intimate distance ranges from body contact to approximately 45 cm. At intimate distance, the presence of the other person is unmistakable. Sight, olfaction, heat from the other person's body, smell, and feel of the breath all combine to signal unmistakable involvement with another body. According to Hall, the close phase, up to 15 cm, includes intimate activities which require extensive contact of the bodies while the far phase, from 15 to 45 cm, does not allow for much, if any, body contact (Hall, 1966, p. 116-119).

Personal distance consistently separates the members of the non-contact species. It might be thought as a small protective sphere that a person maintains between itself and others. Personal distance ranges from 45 to 120 cm between people. The close phase, 45 to 75 cm, permits one person to touch another, while the far phase of personal distance, 75 to 120 cm, "an arm's length" does not permit this. Subjects and personal interest can be discussed at this distance (Hall, 1966, p. 119-120).

Social distance is the casual interaction-distance between acquaintances and strangers. It is common in business meetings, classrooms, and impersonal social affairs. Social distance ranges from 120 to 360 cm. Its close phase, 120 to 210 cm, is the characteristic of informal interaction, while more formal interaction requires the far phase 210 to 360 cm. Some physical barriers such as desks, tables, and counters, usually make people keep this distance. Proxemic behavior of this sort is culturally conditioned and arbitrary (Hall, 1966, p. 121-123).

According to the related study, rapport can be encouraged and maintained or prevented through interpersonal distancing. Interaction within the culturally defined spatial zone appropriate to that spatial behavior goes unnoticed, but if distance expectations are violated, then anxiety may result.(Bovard-Taylor and Draganosky, 1979)

Some studies in this field have considered gender as a factor have influence on personal space as well. Research shows women seem to have smaller personal space requirements than men. (Mehrabian and Diamond, 1971) In the study of Cheyne and Efran(1972), they hypothesised that gender composition would play a role in the tendency to invade personal space based on the concept that male animal species tend to be more territorial than female animal species and therefore men would be more likely to better defend their space. However , the Experimental results shows that male dyads tended to have their personal space invaded more often than female.

Personal space also changes in condition of different situation. When a person is alone, his or her individual distance is without boundaries; but personal space is always carried, although it disappears in certain situations such as crowding. (Sommer, 1969)

- Crowding

Crowding occurs when personal space and territoriality mechanisms function ineffectively, resulting in an excess of undesired external social contact. (Altman, 1975)

In Altman's book, The environment and social behavior: Privacy, personal space, territory, crowding, he describes crowding as "When a system permits more interaction than was originally desired."(Altman, 1975, p.154) In the field of human behavior, it means when the privacy-regulation system does not work effectively,causing more social contact to occur than is desired. In his book, Altman also makes a model (figure.1) to outline a framework of events associated with the management and breakdown of interpersonal boundaries. This model is quite important, because it views crowding as a network. "Crowding is not density along, stress along, costs along, or coping behaviors along. It is a net work of these and other
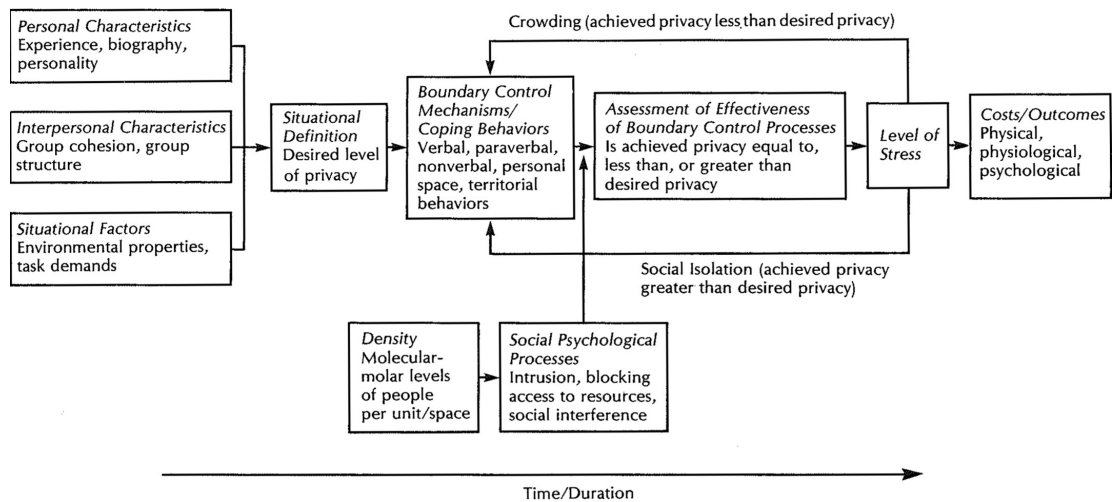
Fig4.3 A Model of Crowding
(source:ALTMAN, I. 1975. The environment and social behavior:
Privacy, personal space, territory, crowding, Nonterey, California,
Brooks/Core Publishing Company, p.155)
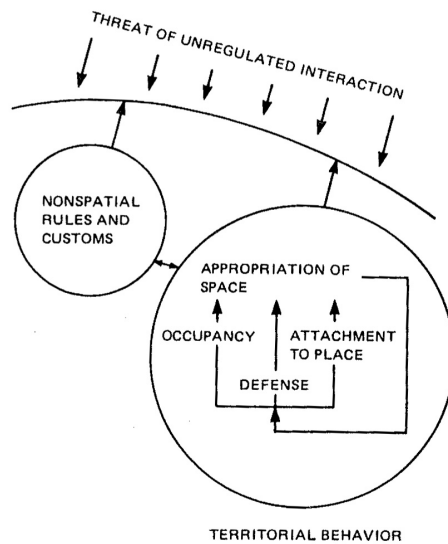
Fig4.4 Expanded model of territorial behavior
(source:BROWER, S. N. 1980. Territory in urban settings. Human
behavior and environment: Advances in theory and research:
Volume 4: Environment and culture New York and London: Plenum
Press, p.184)

factors that are associated with the failure of an interpersonal-boundary system or with an expensively maintained system. "(Altman, 1975, p.158) When talking about the effect of density on social social outcome, Altman think it cannot be concluded that density caused social disorganisation. In his opining, pure density is not the only fact that segregates the central city from suburban areas. Factors such as the inhabitants' physical well-being, economic status, health facilities, and education are only a few variables that often differ in central city and suburbs, and these factors also might be related to social pathology. (Altman, 1975)

- Territory behavior

Before talking about the territory behavior, we should notice that concept of territoriality is different from other spatial concepts such as personal space, jurisdiction, and home range. For example personal space refers to the mechanism for achieving a desirable spacing between people self and the other, it can be described as "a bubble that surrounds an individual and moves from place to place."(Brower, 1980, p.181)) But territory usually means a particular geographic location, which is claimed or occupied by a person, group of persons or an institution. Territory is thus an area of bounded space. (Storey, 2001)
Altman, Taylor and Wheeler(1971) have some finding of the relationship between territorial behavior and threat by observing people's behavior when they were shut up in isolated quarters for some time. They found that anxiety, stress, and nervousness increased, there was an increased tendency for individuals to become territorial with respect to their own belongings and spaces, on the contrary, as levels of stress and anxiety decreased, territorial behavior became less evident.
Following the above study, Sidney N. Brower (Brower, 1980)developed a model (figure 2) to represents territorial behavior as one of two interacting forces, one spatial and the other nonspatial, both guarding against the threat of unregulated interaction. In his model, territorial behavior is referred to as the appropriation of space, which is contributed by occupancy, defence and attachment.

2 Human behavior in Chinese or Asian context

A great deal of the research on the human behavior and environment has been developed around the concept of culture. As my project location is Shanghai, it's helpful to have the knowledge of the human behavior in Chinese or Asian context.

In the understanding of privacy, Chinese are quite different with western people, for them privacy is the state of mind maintained by the individual within shared group space. In chinese culture context, "home" seems to be more nearly synonymous with "family". Chinese seem to develop ways of retaining privacy in what John B.Calhoun(1973) calls "conceptual space". It may be reasonable to conclude that the strong emotional dependence on group interaction, especially of family (Greenbie, 1976).
People handle space in different ways which are largely determined by their culture background.(Hall, 1966) Rules and customs can serve the purpose as - and, therefore, provide an alternative to - spatial separation.

A culture that relies heavily upon rules and customs to regulate social interaction will depend that much less on territorial behavior.(Brower, 1980)
In examining the proxemic patterns of the Japanese, William H. Michelson (1970) has noticed, although Japanese home are often surrounded by high walls on the outside, an unusually flexible sage of space occurs within the home. He describes the private and public relation as follows:

The Japanese exemplify successful adjustment to very high densities. Faced with huge urban masses in a country with no room in which to expand, and without the precedents for high rise construction, the Japanese have made their dwellings small, and private open space is minimal. The Japanese have reacted to this pressure by "turning inward". They strongly distinguish between what is private and what is public in physical as well as social terms. Interiors of homes are personal, and their lack of size is compensated for by an intensity of detail.

There's similar physical context of the traditional Shanghai Linong. But the difference is, in Linong, the boundary between private and public space is often blurred. People tend to make their private space have more communication with the public space, for instance, keeping their door open to the neighborhood street in order to hear or participate their neighbors' chatting, while doing the housework.
As a solution of crowded living, Japanese developed flexible use of their homes. With movable walls and separators, the same environment serve several functions. (Altman, 1975) Alteration of same room for multiple needs such as sleeping, eating and socializing, is accomplished with little effort.(Aiello and Thompson, 1980) The way they handle the space provided an object lesson in how to optimize to fully using the limited space, which is also meaningful for shanghai.
In related analyses of crowding living, it is observed that a densely populated place such as Hong Kong had a relatively low incidence of social pathology, including disease, family disorganization, and death rate. It shows a chinese style of family functioning, social organization, and other cultural mechanisms for coping with high density.(Michelson, 1970)

3 human behavior and environmental design
As one of the earliest lines of researchers at the theme of personal space, Sommer always concern about designing the environment for human beings.
In his opinion, the clearest realization of the connection between environmental form and human behavior is taking place in the institutional field. People trained in hospital administration, education, and business management are aware of the important contributions research and development have made in most aspects of their work. Whether it is a matter of secluded or exposed nurses' stations in hospitals, separate or bunk beds in college dormitories, open or partitioned offices, ceilings eight or eight-and-one-half feet in apartments, it is evident that little is known as to how the alternatives affect people. (Sommer, 1969)
In sommer's words, designing functional areas or multipurpose space does not complete the architect's task. It is equally necessary to show the residents how to use the space productively and to develop effective institutional policies governing space allocation and utilization.

Architecture may be beautiful but it must be more than that; it must enclose space in which certain activities can take place comfortably and efficiently. Not only must form follow function, but it must assist it in every way. The personal expression of the architect must yield to the functions that the building serves. (Sommer, 1969)

According to Hall(1966), proxemics defines three different types of space, namely fixed-feature space, semifixed-feature space, informal space. They have been defined as following:

Fixed-feature space is one of the ways in which people organize activities. Houses, buildings, cities, rooms, etc. are organized spatially. Objects and activities are related to these spatial arrangements; and if objects or activities are moved, people react. The important point about fixed-feature space is that it is the mold into which a great of behavior is cast. Buildings are one expression of fixed-feature patterns, but buildings are also grouped together in characteristic ways as well as being divided internally according to culturally determined designs. The layout of villages, towns, cities, and the intervening countryside is not haphazard but follows a plan which changes in time and culture (Hall, 1966, p. 103-106).

Semifixed-feature space is of primary importance in interpersonal communication, because it can be used in many different ways to convey meaning. Hall mentions two types of semi-fixed feature space: Socio-petal spaces are those which bring people together and stimulate involvement, while socio-fugal spaces keep people apart and promote withdrawal. Furniture arrangement in public places has a distinct relationship to the degree of conversation. Some spaces such as railway waiting rooms in which the seating provisions are formally arranged in fixed row, tend to discourage conversation: sociofugal spaces. Others such as the tables in a European sidewalk café, tend to bring people together: sociopetal spaces (Hall, 1966, p. 108-111).

Informal space is significant because it includes the distances people unconsciously maintain when they interact. Informal spatial patterns have distinct bounds and such deep, if unvoiced, significance that they form an essential part of culture. To misunderstand this significance may invite disaster (Hall, 1966, p.111).

When we design or plan the environment, proxemics provide the information of set measurable distances for human interactions.

Referring to the bigger scale, urban neighborhood represent units with very different qualities from those of the largely interior spaces of buildings. It is no longer the internal arrangement of space that is important, but instead the external spatial arrangement of many buildings and public spaces. However, neighborhood to some degree still retains the characteristics of smaller size and the possibility of more personal contacts. (Saarinen, 1976) Robert Gutman (1966) has a short review of site plan and social behavior that the dominant research direction has been conceived of as the influence the site plans exert through their regulation of the communication process. This can be seen as a contributing factor in planning neighborhoods.

In some suburban area studies, proximity becomes a factor in friendship under the two conditions, namely homogeneity - or perceived homogeneity and the need for mutual aid. (Michelson, 1970) But proximity can not overcome differences in stage of life cycle. Moreover, the strength of proximity is such that it may cause people who expect high levels of interaction to misperceive each other favorably. (Athanasiou and A.Yoshioka, 1973)

4 Conclusion

Spatial design and planning no matter in which scale should always work on how to design an environment with "man as the measure." We need to realise, the way people use personal space, rooms, buildings, neighborhoods and even the city, all these shifts in the size, density and internal arrangements require adjustments by the human inhabitants.

It is important to bear in mind the possible consequences of individual differences in the use of space. Different cultures maintain different standards of personal space, territory behavior, coping strategy of crowding and the way of use the space. As Hall (2002) says, in the process of communication, such cultural variations amongst what comprises semifixed-features and what comprises fixed-features can lead to confusion, discomfort, and misunderstanding. So for me, it's important to specified the theory and information in a close context to my project area - Shanghai. Regarding the living environment, they are arranged systematically so as to allow for differential access to the various parts of the home by different kinds of people, depending upon their relationship with the family. (Aiello and Thompson, 1980) The Japanese case in design of living environment, provide a mode for some space condition in my project, with the idea of the interior of living environment can be richly differentiated by means of flexible use and decorative arrangements.

As spatial arrangement makes it possible to create different settings for different uses, and so to reduce opportunities for conflict.(Brower, 1980) When the spatial requirements of people are better understood, thoughtful environment design may be possible in my project to facilitate social interaction on different scale.

II. Analysis on the scale of social interaction

As Shanghai Cannes has complex scales of territories that support social interaction, which is not easy to defined by private, semi-public and public spaces. Here privacy zoning model(van Dorst, 2010), a physical description of physical and social territories which enable residents to control social interaction, is used to analyze the scale of social interaction in Shanghai Cannes.

According to the system of privacy zoning, the following zones are identified in Shanghai Cannes:
Zone 0 Collective renting dwelling - the room unit of collective renting flat
Zone 1 Normal dwelling - the zones within the dwelling are less clearly identifiable
Zone 2 Corridor - a space shared by 3 or 4 flats
Zone 3 Stairwell and lift - shared by 24(8-storey building) to 57(19-storey building) flats
Zone 4 Entrance area in the building - a private area for 24(8-storey building) to 57(19-storey building) flats
Zone 5 Entrance area outside the building - where visitors announce their arrival. As the gate control system is abandoned now, the gate is always open, which means the boundary between the outside public area and the inside private area is unobstructed.
Zone 6 The cul-de-sac/ through street where the building is located - the former is only use by the residents and a few passers-by, the latter has more passers-by.
Zone 7 The neighbourhood - a gated territory for 12500 flats

The zoning in Shanghai Cannes contributes little to facilitate social interaction because most zones are only used for passers-by, there are no attractions for people to stay, therefore less opportunities for social communication.
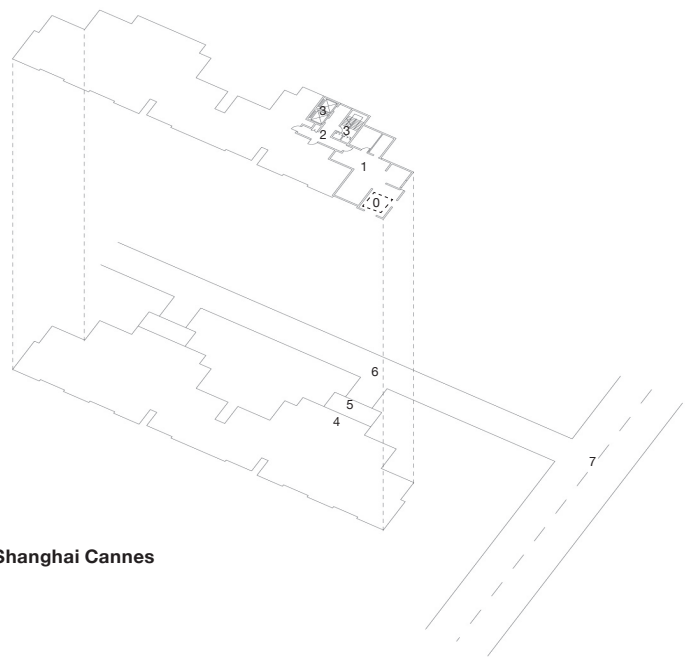
Fig 4.5: Privacy zoning of Shanghai Cannes

Chatper 5
Strategy

Scale: 0 10 20 50 100m

N

Community garden

Connective
waterfront

Artificial
mountain

Green house zone

Central mix-use area

Riverbank
public space

Education-oriented
children friendly
area

Residential
(for small household)

Bar/
Club

Office

Park

Shopping
mall

Middle school
(existing)

Market+grassroots
industry zone

Border area: city scale mix-use development

Fig 5.3: Strategic plan

Common house   Public space node   Border area   Ring road

5.1 Strategy package

Social interaction is the core of my strategy, it provide residents living in a community with knowledge about their fellow residents and social structure. This in turn helps to build trust between residents, allows for exchanges to take place and creates social network. Based on the vision described in last chapter, my strategy and design will mainly focus on how to regenerate neighborhood living environment that facilitate social interaction on different scale in order to strengthen the sense of community in Shanghai Cannes.

The strategy package includes three components, respectively regulation collective renting, open the ghetto and inviting public life.

When talking about facilitating social interaction, the most related approach is regenerate the neighborhood environment to invite public life. But to Shanghai Cannes, there are two difficult problem- one is conflict beween formal and informal residents another is the limited economic capability of residents, it is hard for them to pay for the regeneration project.
So regulating collective renting and open the ghetto is the premise of inviting public life, the former providing social foundation for further neighborhood social interaction and the latter give finance support for the neighborhood regeneration project.
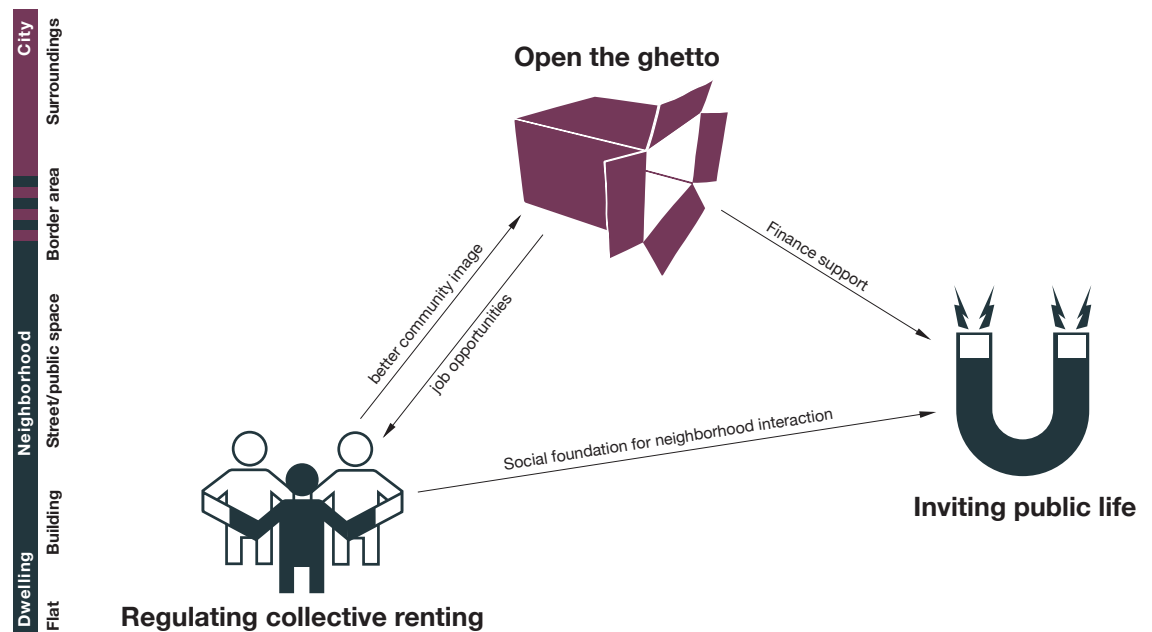
Fig 5.1: Three components of strategy

City

Surroundings   **Border area**

Social segregation between car owners and the others

$\oplus$

Problems

Hard public
transportation situation

Weak connection to the
surrounding urban area

$\oplus$

**Open the ghetto
towards Xinsong Rd**

Potentials/qualities

Improved accessibility by car

Development potentials along
Xinsong Road

Hazard Lights Action
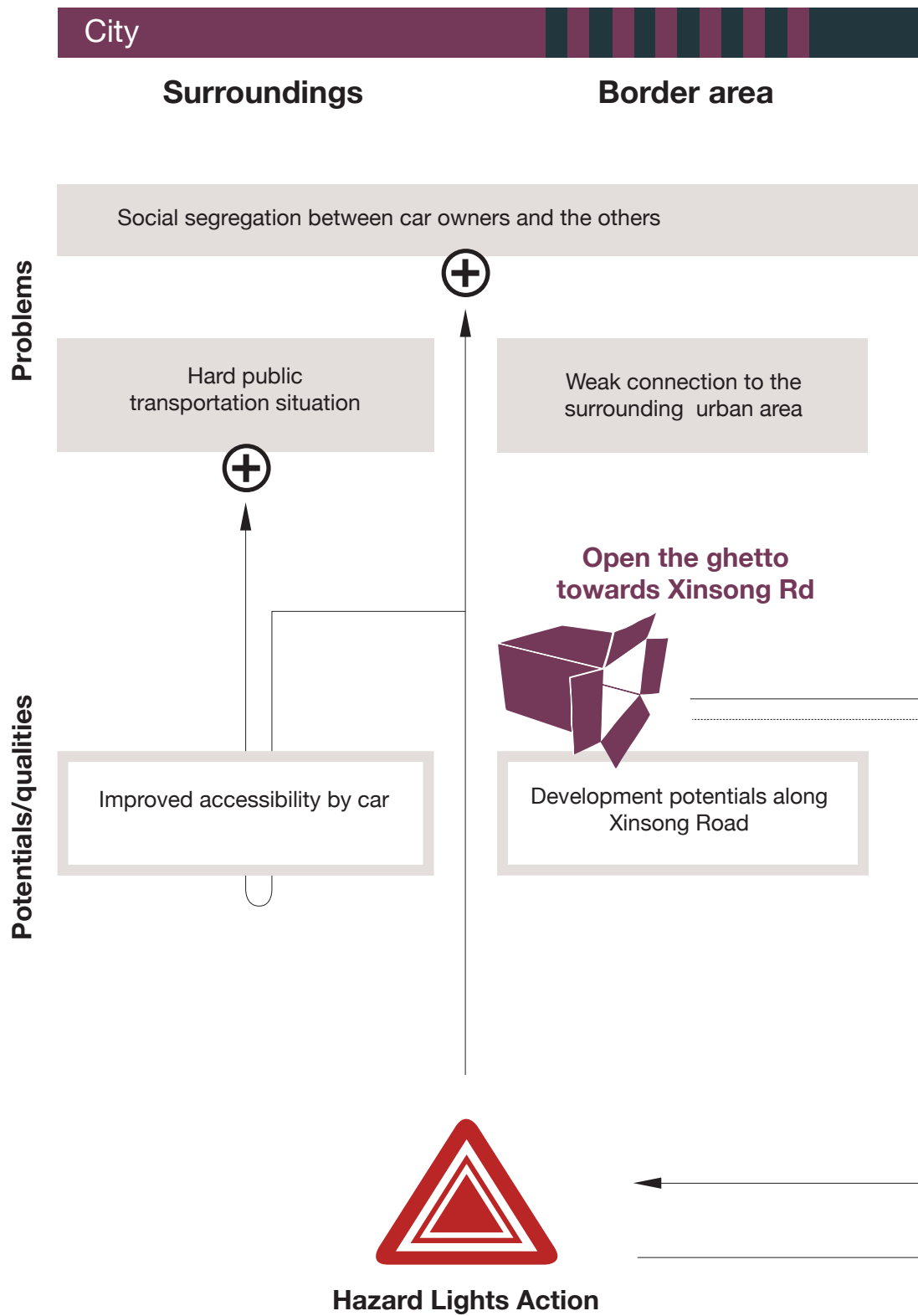
**Fig 5.2: Relation between strategy
components and the exising problem/
potential**

Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes

City		Neighborhood		Dwelling
Surroundings	**Border area**	**Public space**	**Building**	**Flat**

Problems

Social segregation between car owners and the others

Social segregation between formal and informal residents

Hard public transportation situation

Weak connection to the surrounding urban area

Untidy environment caused by informal commerce converted from ground floor flats

Bad living conditions and negative influences of Group Lease

Open the ghetto towards Xinsong Rd

Not pedestrian friendly
Lack of facilities
Not social interactive

Inviting public life

Regulating collective renting

Potentials/qualities

Improved accessibility by car

Development potentials along Xinsong Road

A large quantity of public space

Affordable housing for low-income people

Hazard Lights Action

Social interaction

A sample of resource sharing activity

Resource sharing interpersonal relationship

5.2 Regulating Collective renting

This part of the strategy is aimed to reduce the conflict among formal and informal resident groups and achieve a harmonious mix living condition in Shanghai Cannes, which help the social foundation for further interaction and lay the first stone of a social connective neighborhood. Moreover, the regulated collective renting provide a more sustainable and higher-quality way for migrant workers and low-income people to live in Shanghai Cannes.

PRIVACY

REGISTER EVERYONE'S IDENTITY
(**REAL NAME** SYSTEM)

SECURITY PROBLEM CAUSED BY
FLOATING POPULATION

REUSE THE **GATE CONTROL SYSTEM**

Collective renting organisation
(community-based governance)

PROVIDE **SPATIAL SEPARATION MODELS**,
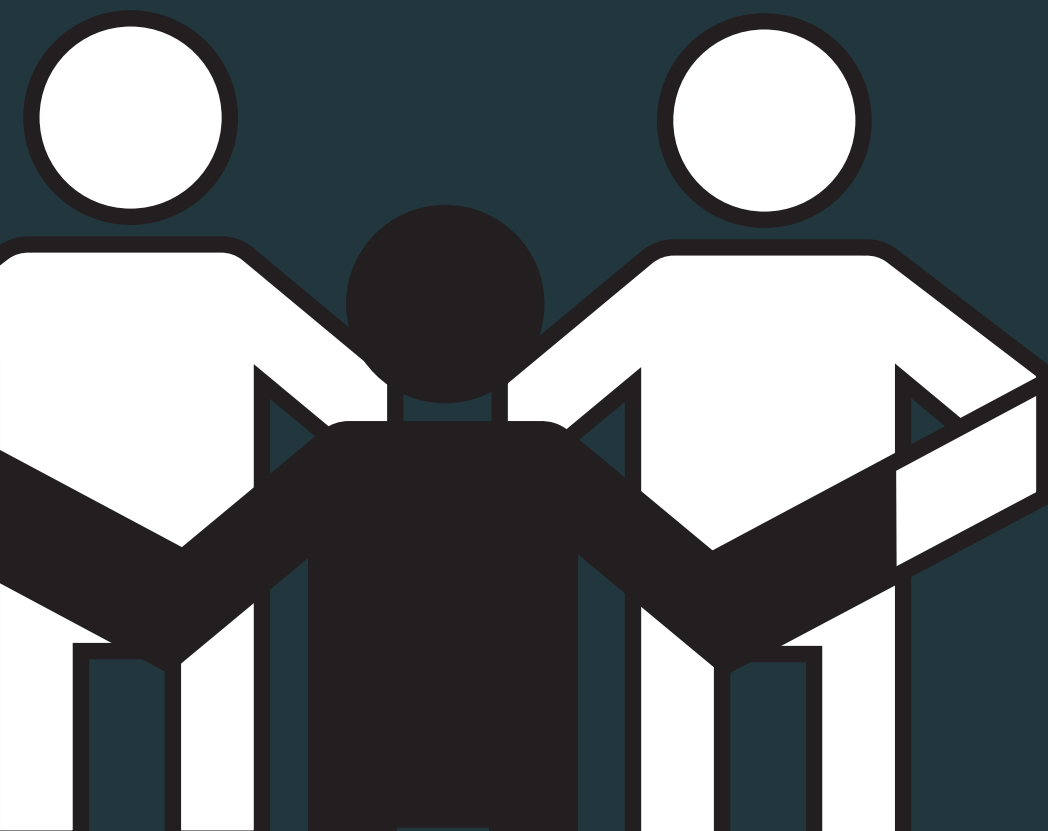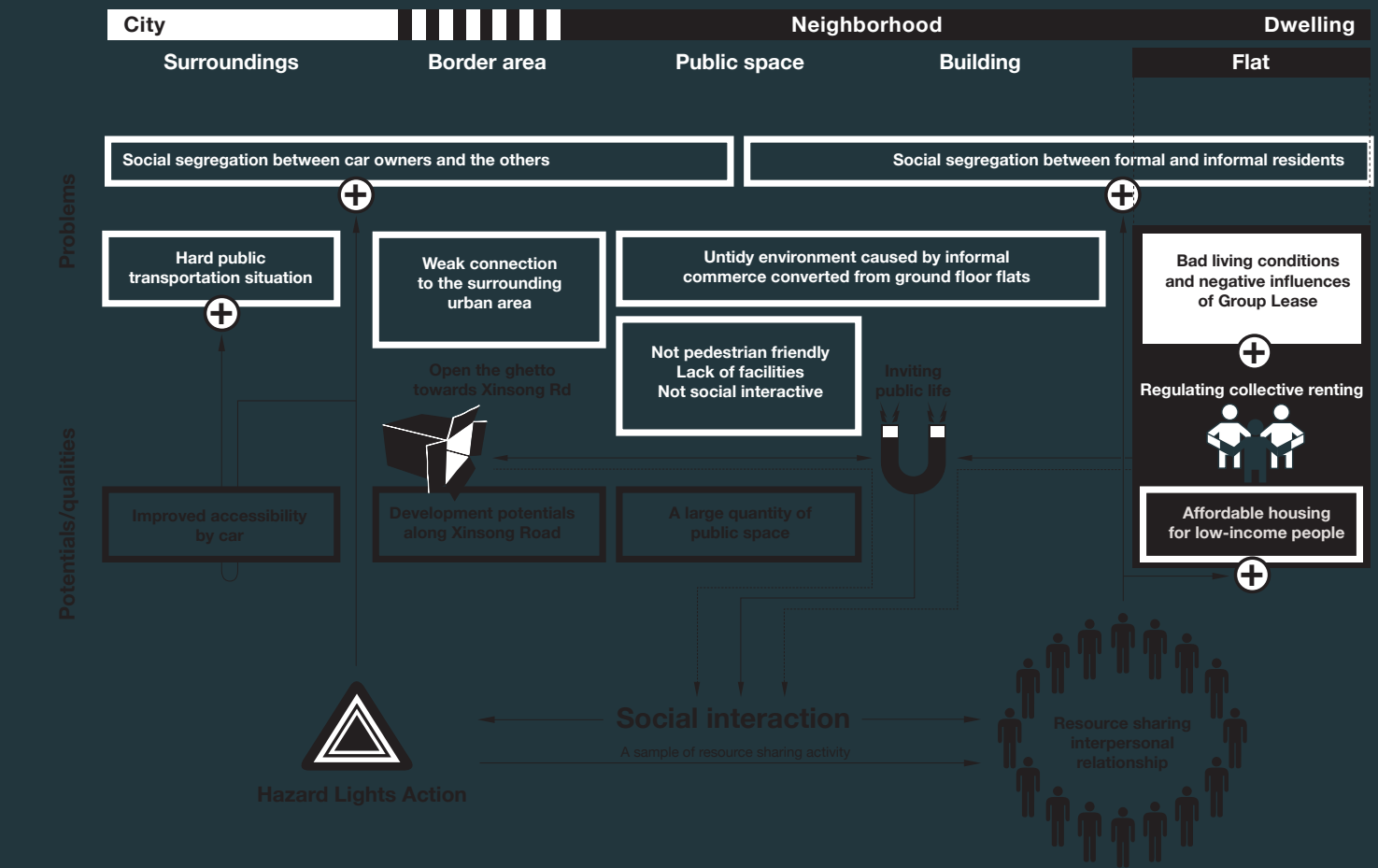**MODULARIZE** THE FURNITURE,
MAKE THE SPACE SEPARATION CONSTRUCTION **CHEAP BUT WITH HIGH QUALITY**

THE WHOLESALE PRICE OF THE CONSTRUCTION MATERIAL AND
FURNITURE WILL BE ATTRACTIVE

SAFETY

DANGER OF FIRE

LIMIT THE NUMBER OF **TENANTS** BASED
ON **SAFETY AND HEALTH REQUIREMENTS**

Collective renting organisation
(community-based governance)

BAD SANITARY CONDITION

OVER CROWDED

DIRTY

DRAW UP COLLECTIVE RENTING **RULE**
TO PREVENT INTERFERING NEIGHBORS

OVERLOAD USE OF TOILET
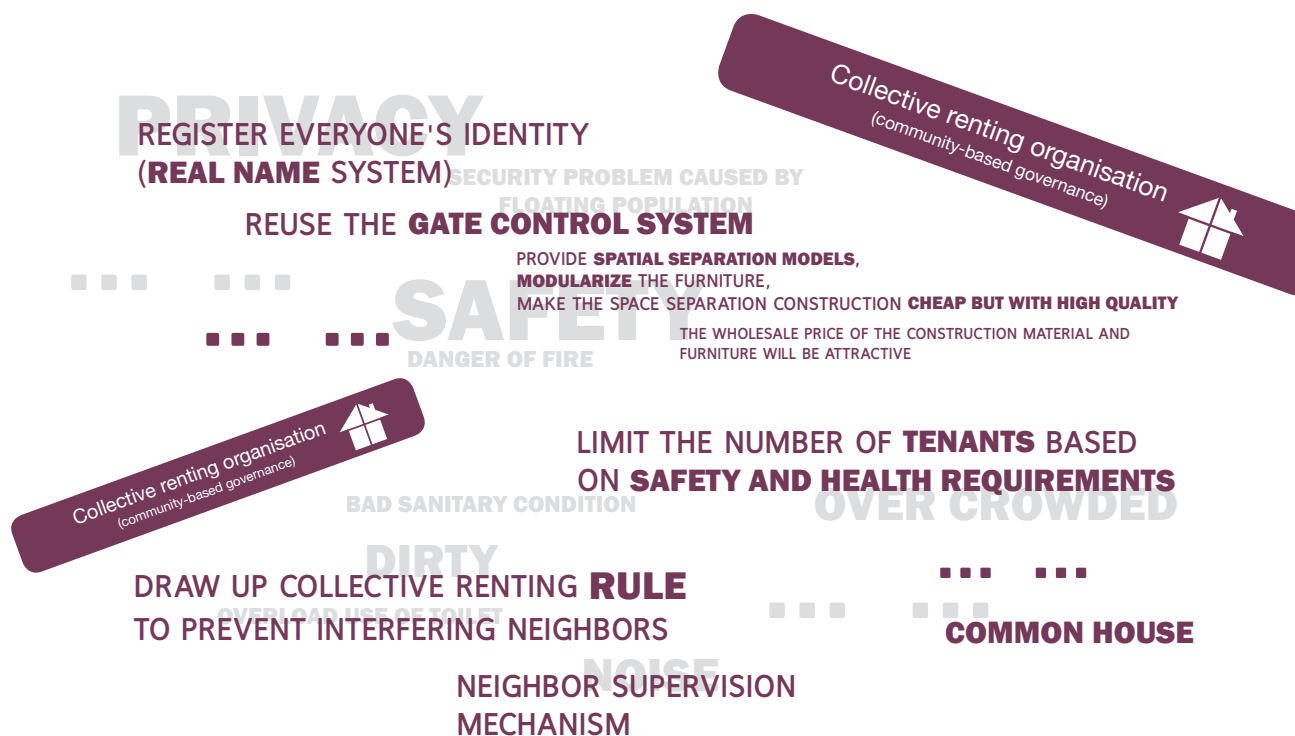
COMMON HOUSE

NEIGHBOR SUPERVISION
MECHANISM

NOISE

**Fig 5.4: Possible approach to overcome the problemes
caused by collective renting**

From "middleman" landlord to collective renting organisation

The current situation of collective renting is managed by a "middleman" landlord, it can be an individual and also can be an agent. Then "middleman" landlord purposefully drive up rents while acting as "middlemen" landlords or encouraging landlords to increase the prices. The following text tell how collective renting organized by a real estate agency:

"We are in charge of management and finding the tenants. After you sign a contract with us, you rent the house to our company at 3600 yuan a month. If we rent the house to others at, like 3800 or 4000 yuan, the profits are ours."

Although unwilling to admit, many real estate brokerages divide big apartment into several small rooms and rent them to different tenants. This kind of collective renting has many potential safety and fire hazards. It has been forbidden by the government. But the practice is still widespread.

"If we don't rent the apartment collectively, we don't make a profit, and our company will close down. If you want to rent your apartment at a high price, you have to entrust it to the real estate agencies."
"Our company specializes in collective renting, and we have special staff handling this business."

Although the apartment is divided into several small rooms and rent to different tenants, the real estate agency will only pay 3600 yuan a month to the house owner, but the profit the agency gets is far more than that.
(source: crienglish.com)

In this part of the strategy, I proposed a mode of collective renting to make an organization be in charge of the management and find tenants and landlords for each other.
This proposed mode is based on neighborhood self-organization. It is no longer only about certain house owners or tenants but about the whole neighborhood. All the households become members of this programe and have the rights to participate in making the rule and share the profit (by means of the profits of rent will be used in improving the public facilities). As one definition of sense of community, Membership involves a feeling that one has invested part of oneself to become a member and therefore has a right to belong(McMillan and Chavis, 1986) So this kind of resident participation and membership will increase the social cohesion of Shanghai Cannes.

Rent/flat

Rent/room   Rent/collective
             renting flat

Landlord

"Middleman" landlord

Collective renting tenants
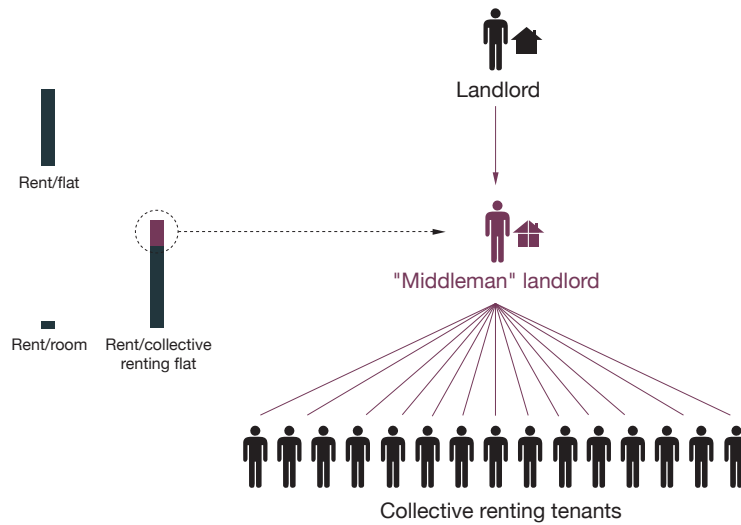
Fig 5.5: Current mode of collective renting

Landlord   Landlord   Landlord   Landlord   Landlord   Landlord   Landlord

Rent/flat

Collective renting organisation
(community-based governance)

Community

Rent/room   Rent/collective
             renting flat

Collective renting tenants
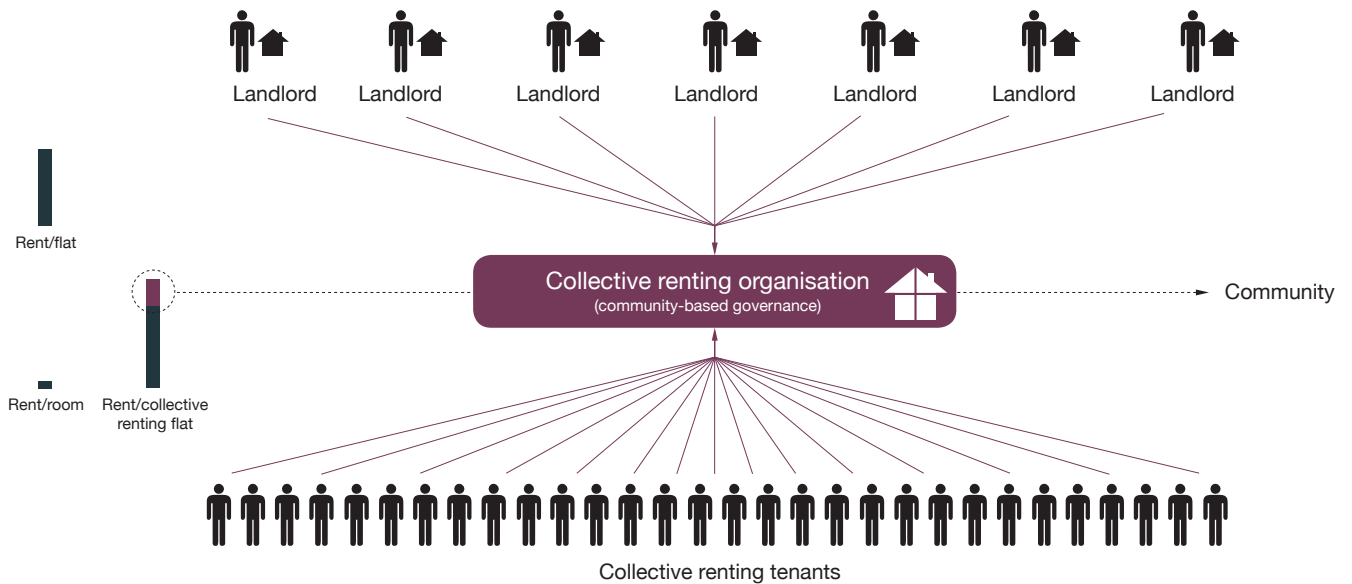
Fig 5.6: Proposed mode of collective renting

Master thesis TU Delft

Common house as a supporting facility for collective renting

Inspired by the cohousing neighborhoods, as a part of the collective renting, common house will be introduced into Shanghai Cannes to satisfy the basic living requirement of collective renting. Common house will provide public kitchen, laundry, public dinning room for the collective renting tenants. The arrangement of its form and location can be flexible according to the coverage rates of collective renting flats.
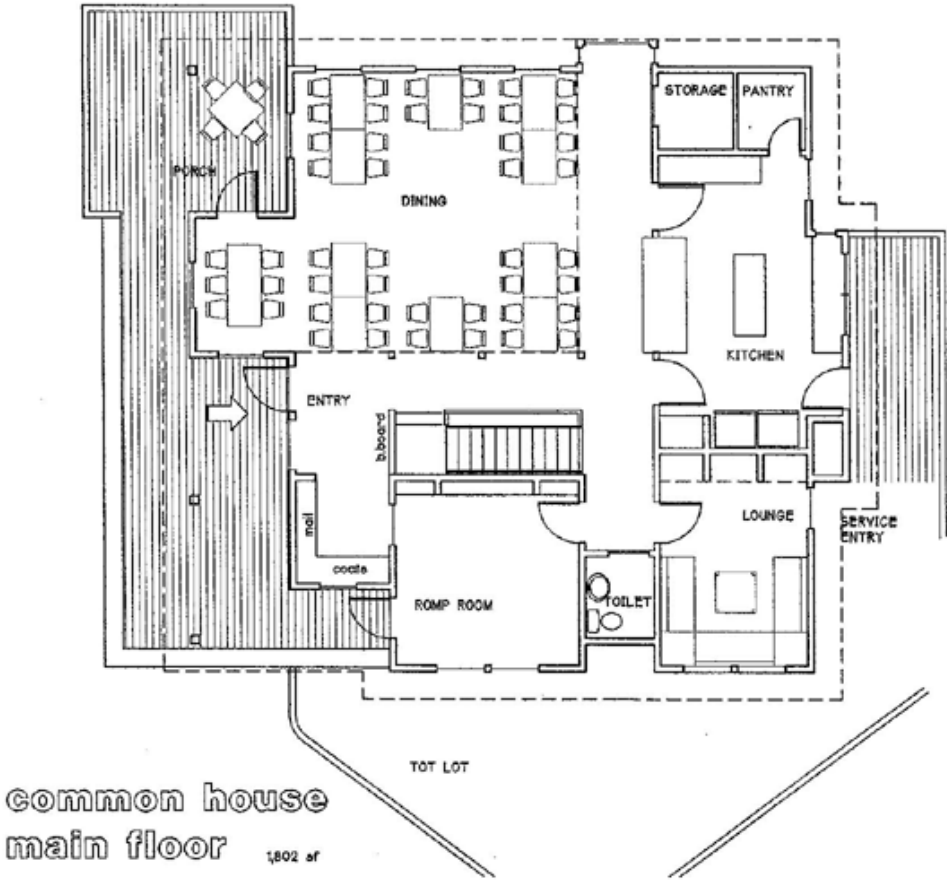
A common house plan of cohousing neighborhood
Source: http://www.westwoodcohousing.com/common.html
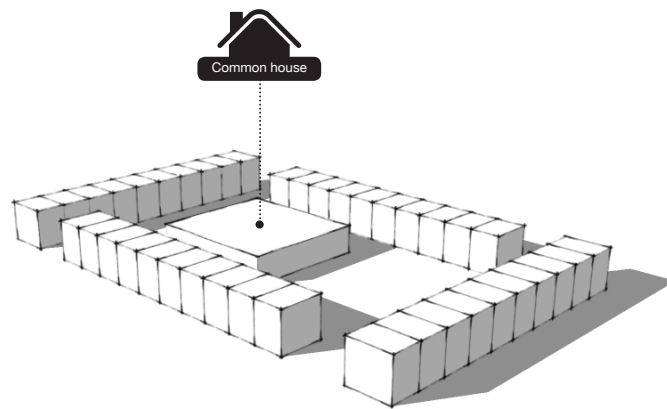
Common house of Cohousing neighborhood
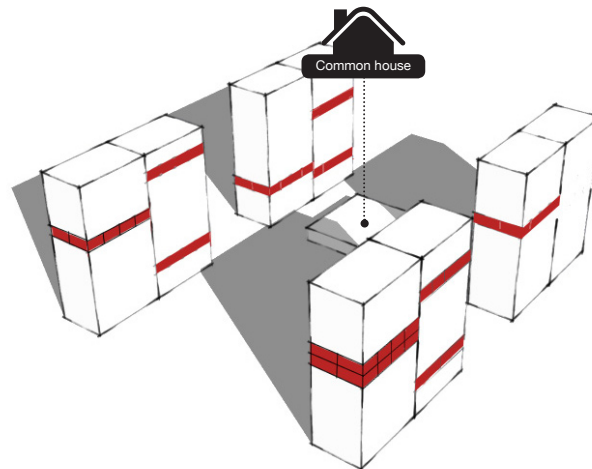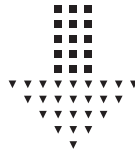
Common house for collective renting
(with public kitchen, laundary, public dinning room)

Fig 5.7: Transform the cohousing common house to high-rise dwellings

0 10 20   50   100m

Types of common house:
■ Common house (independent)
▣ Common house (extension of ground floor flats)
☐ Common house (on top of the building)

Coverage rates of collective renting:
■ >20%
■ 10-20%
■ <10%

**Fig 5.8: Placing the common houses according
to the coverage rates of collective renting**

Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes
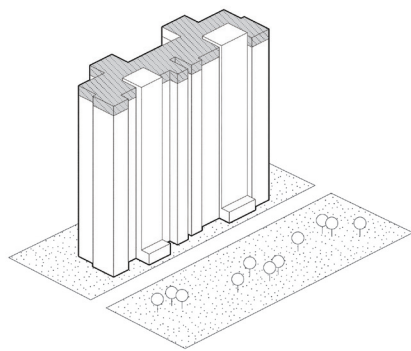
common house as an additional storey of the building
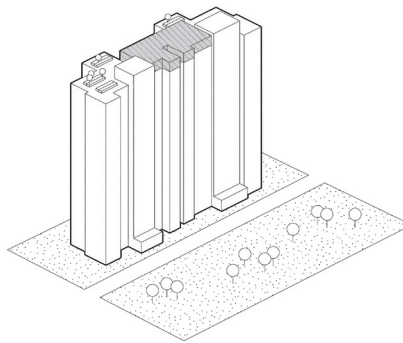
Common house + collective garden
(common house as linkage)
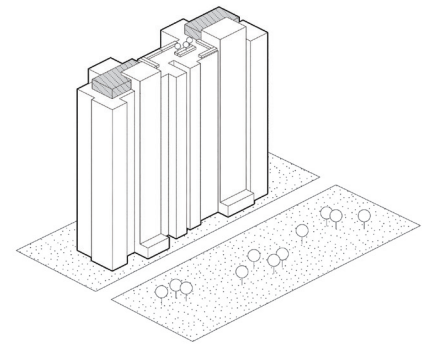
Common house + collective garden
(garden as linkage)
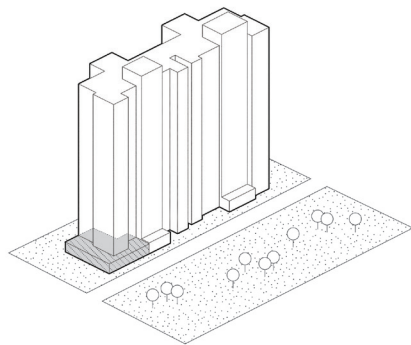
common house as an expension of ground floor flat
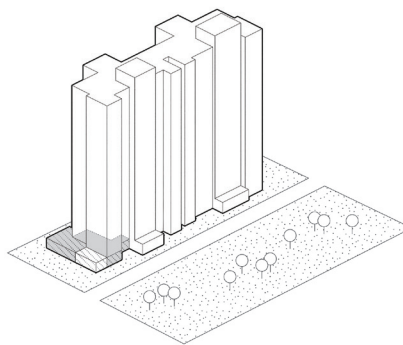
Common house + convenience store
(integrated)
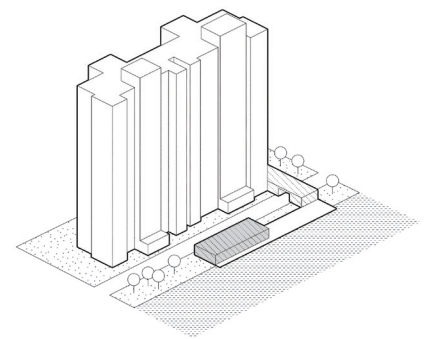
Common house combined with waterfront
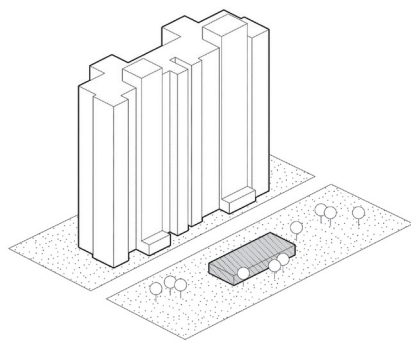
independent common house in the public space
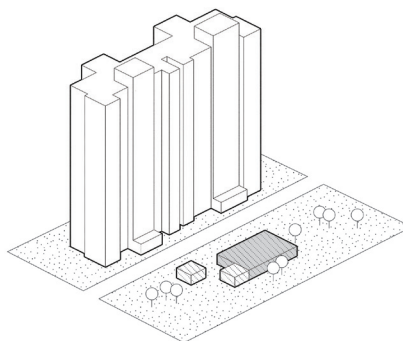
independent common house combined with
commercial
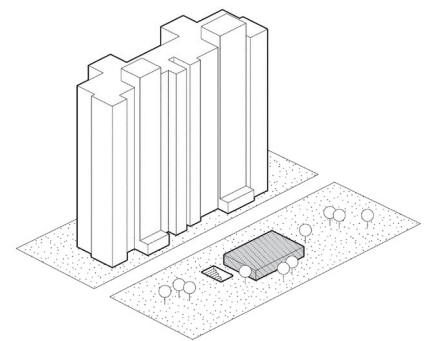
independent common house located beside the
entrance to underground garage

Fig 5.9: Proposed typologies of common house

The Windsong Cohousing Community in Langley, Canada

Petaluma Ave Homes Common House in Sebastopol

Fig 5.10: Reference of cohousing neighborhood
Source: http://windsong.bc.ca/
http://windsong.bc.ca/https://schemataworkshop.wordpress.com/tag/mccamant-durrett/

Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes

Formosa 1140, Location: West Hollywood, California, USA
bY Lorcan O'Herlihy Architects
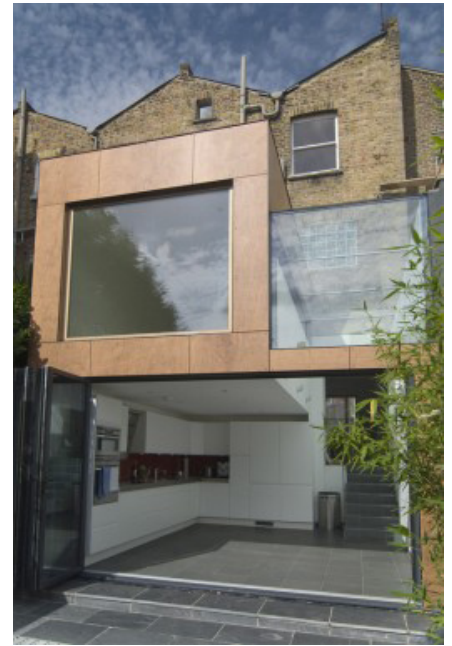
Modern extension for London home
by Crawford Partnership

Greenhouse design, Location: Asse, Belgium
by Verdickt & Verdickt Architecten

Dakota Residences, Location: Seattle, Wastendom, washington, USA
by PB Elemental Architecture

Fig 5.11: Reference of the typologies of common house
Source: Archdaily.com

City		Neighborhood		Dwelling
Surroundings	**Border area**	**Public space**	**Building**	**Flat**

Problems

Social segregation between car owners and the others

Social segregation between formal and informal residents

Hard public transportation situation

Weak connection to the surrounding urban area

Untidy environment caused by informal commerce converted from ground floor flats

Bad living conditions and negative influences of collective renting

Potentials/qualities

Open the ghetto towards Xinsong Rd

Not pedestrian friendly
Lack of facilities
Not social interactive

Inviting public life

Regulating collective renting

Improved accessibility by car

Development potentials along Xinsong Road

A large quantity of public space

Affordable housing for low-income people

Hazard Lights Action

Social interaction

A sample of resource sharing activity

Resource sharing interpersonal relationship

5.3 Open the ghetto

Top down
City scale development

Surroundings

OPEN the ghetto

Shanghai Cannes

Bottom up
Neighborhood regeneration

Fig 3.6: Linkage strategy

This part is a linkage strategy that connecting the bottom up neighborhood regeneration in Shanghai Cannes to the top down city development (Fig 3.6).

For Shanghai Cannes, the surrounding infrastructure upgrading did not give a directly solution on hard public transport situation, and for most working class residents who rely on public transport, the life is not too much changed, which means although the city scale big development happens quite nearby, but still little connection with this huge ghetto.

Then the situation is, one side the regeneration of this problematic neighborhood, which is aim to improve the life of all the resident groups, now is under the economic pressure, (because the residents are mainly working class and low-income collective renters) the other side, the surrounding development can not effect on Shanghai Cannes, because it is a close ghetto. If no intervention happens, obviously there is a loss of opportunity. And the neighborhood regeneration project is hard to realize. So it is rational to propose, open the ghetto, make Shanghai Cannes benefit from the surrounding infrastructure upgrading, and make the neighborhood regeneration project get economic support from this intervention.

From the analysis of physical state in chapter 2, it is clear that new infrastructure development will make Shanghai Cannes a more connective role to the city. But this kind of connection chiefly embodies fast accessibility by car, but not really solve the traffic problem for people who rely on public transports. Residents still have to walk a long way to take the bus to the metro station. For most the working class residents in Shanghai Cannes, these developments are only in urban scale, and lack a deeper connection to the neighborhood scale.

Rethinking the new connection, obviously it is an opportunity, the question is how to make more people or the whole neighborhood profit from it.

If we open the ghetto by create more gateways, it can strengthen the accessibility to the neighborhood, but there is still more benefit for people who have a car. More gateways help them make easy access to surrounding facilities and the city. But the problem is that the neighborhood will become only a place for sleeping. And for the people who do not have car, a more open Shanghai Cannes is meaningless, their live will be nothing different. They still have to walk out of the huge neighborhood to get daily needs, not to mention recreation and amusement. Then the segregation among residents will become even more serious.

Then I found the key of the solution is the boundary along Xinsong Road. As being introduced in the chapter of physical state, this road is the backbone connecting the west suburban area to the central city of Shanghai, now the widening projects near Shanghai Cannes are invested to solve the traffic congestion in this section. It has very positive influence on the future potential of the area along the road.

For this reason, I propose to open the ghetto towards Xinsong Road, make the boundary a mix-use in-between area instead of a barrier between Shanghai Cannes and surrounding urban fabric.

In this part of the strategy finance support is only a staring point, the city scale projects which oriented from the infrastructure upgrading will also bring other benefit such as:
- New landmark, which improve the neighborhood confidence
- Attract visitors, stimulate the local commercial the local commercial and grassroots industries in the border area
- Job opportunities
- City scale public space

Current situation: ghetto
Boundary - wall

Shanghai Cannes
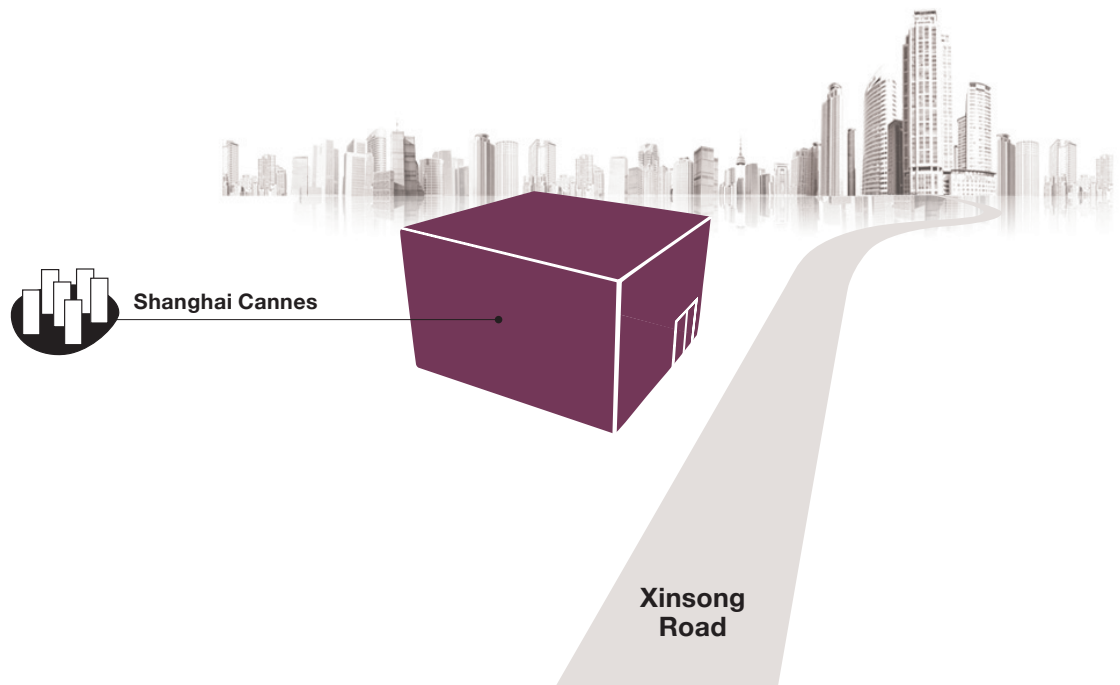
Xinsong Road

Proposal: open the ghetto towards Xinsong Rd
Boundary - a in-between area between Shanghai Cannes and city surroundings instead of a barrier

Shanghai Cannes
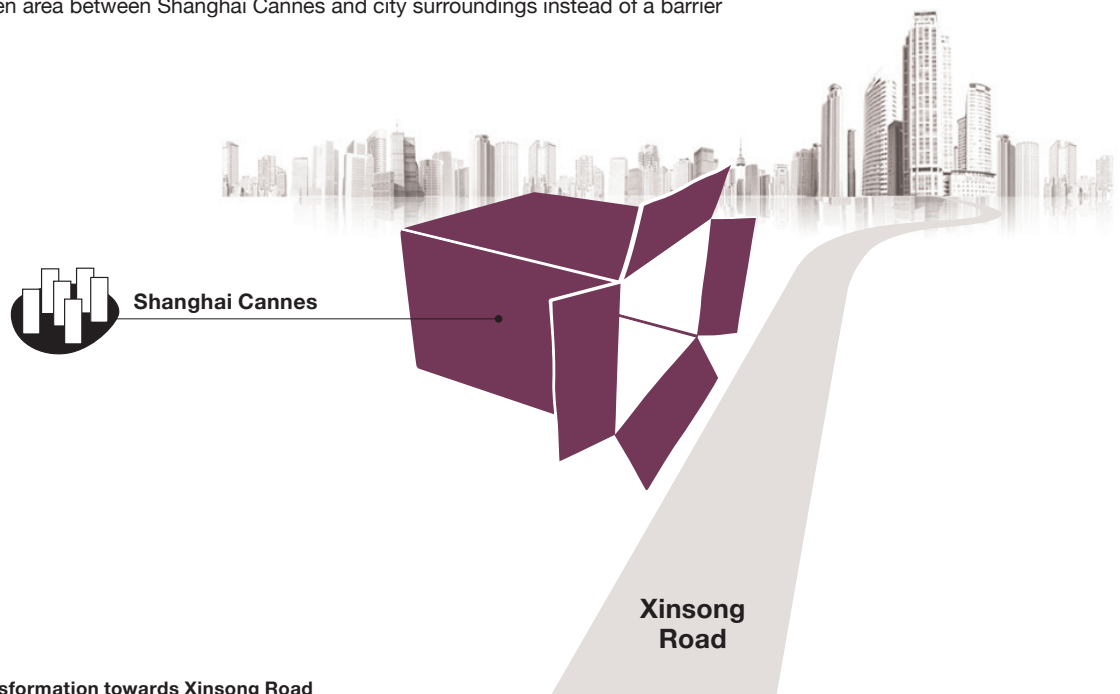
Xinsong Road

Fig 5.12: Boundary transformation towards Xinsong Road

Kindergarten

Middle school

Shops
(with parking spaces)

Bank
Post office
shops
(with parking spaces)

Gas station

Recreation/
education/ shops
(with parking spaces)

Wall

Restaurant
Hotel

Supermarket

Commercial
Education
Abandoned building

**Fig 3.5: Current situation of the border area
towards Xinsong Road**
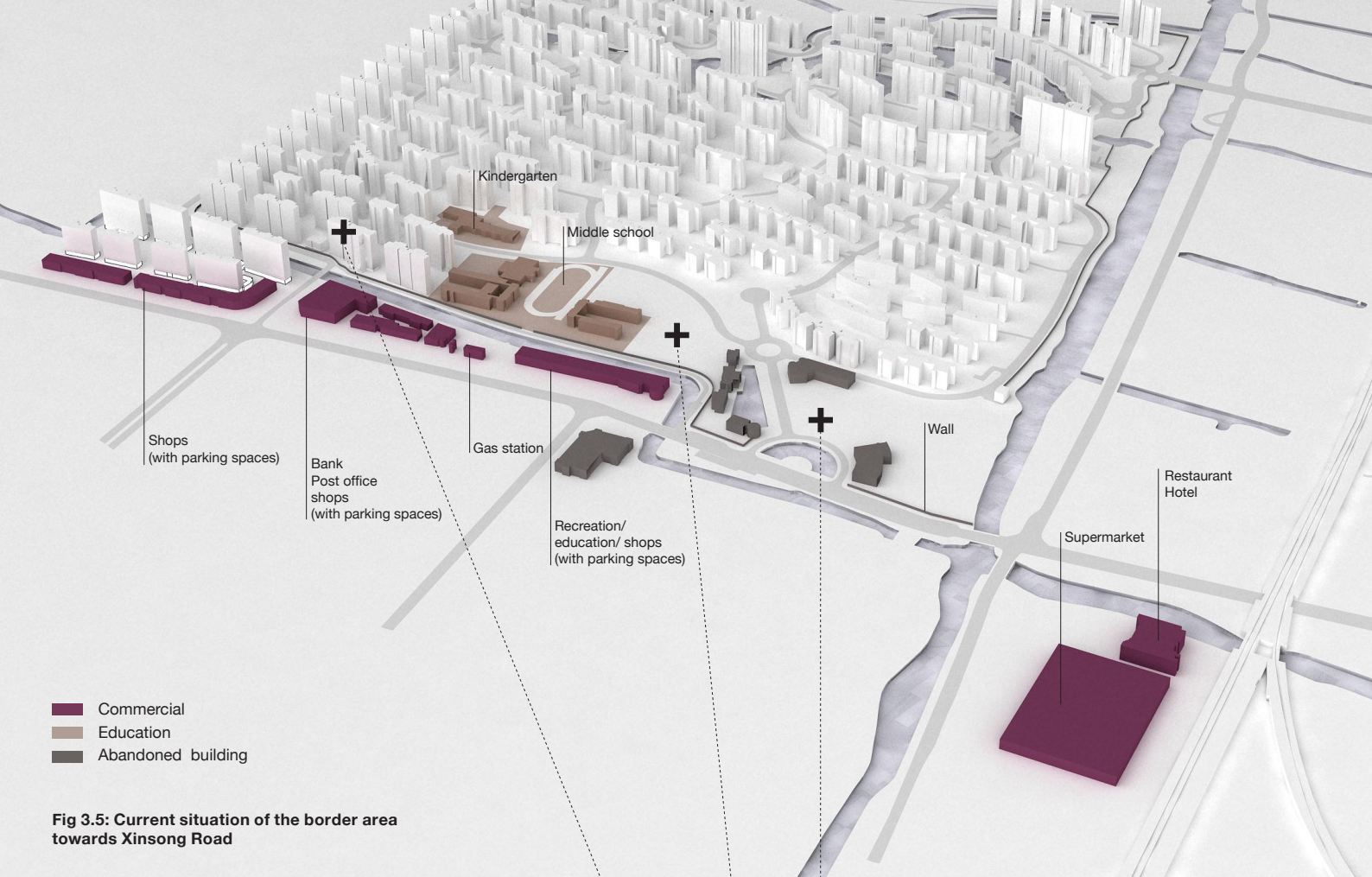
Fig 3.5: Proposal for the border area towards Xinsong Road

Current situation

Proposed intervention zone (1, 2, 3)

3

2

1
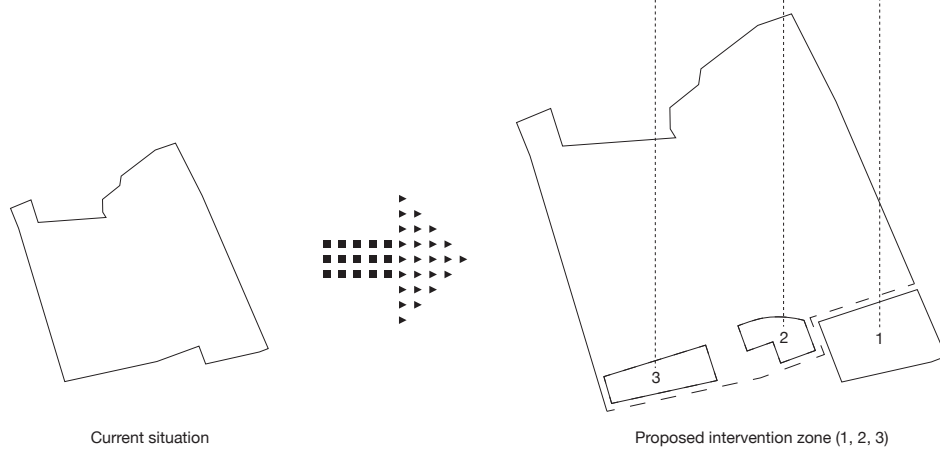
Since studies of segregation and integration make up the bulk of the literature, they are an important part of any discussion about place diversity. I treat them as an important component of a broader definition that includes all forms of social and economic mixing—the combination, in particular places, of people of varying incomes, races, genders, ethnicities, household sizes, lifestyles, and, in addition, nonresidential activities comprising different uses and functions of land.(Talen, 2006)

Interaction or the opportunity for interaction among diverse peoples is believed to be necessary for overcoming certain types of social problems. Place diversity is important because it may help build social capital of the "bridging" kind by widening networks of social interaction. (Talen, 2006)Where there is less social diversity and more segregation, there is likely to be less opportunity for the creation of these networks, which may have the effect of prolonging unemployment in poor neighborhoods(Gottdiener, 1983).

Based on this knowledge, a mix-use area with three project will proposed to open the ghetto towards Xinsong Road.

Site 1 - City scale mix-use area (shopping mall complex) as a joint to form a new district center

A shopping mall complex with areas downstairs for communal activities and office upstairs will be proposed to form a city scale mix-use area. This complex will reuse the abandoned building near the north gate of Shanghai Cannes. It will link the existing pieces of commercial and aim to form a new district center in this area.

Site 2 - New apartment housing project

In site 2, a new apartment housing project will proposed in this empty land. This project is particularly designed for small household, which can bring new type of population in Shanghai Cannes and place the positive diversity.

Site 3 - Market+grassroots industry zone

In site 3, there is a merge point between "open the ghetto" and regeneration intervention inside the neighborhood. Here I proposed to strengthen the local quality of grassroots industry to create an area with creative studio and office for small company. In order to attractive visitors, an open market for flowing pedlar will proposed to strengthen the quality of local commercial.

Shops
(with parking spaces)

Kindergarten

Middle school

Open market
Grassroots industry zone

Bank
Post office
shops
(with parking spaces)

Gas station

Recreation/
education/ shops
(with parking spaces)

Central city

Xujiahui
CBD
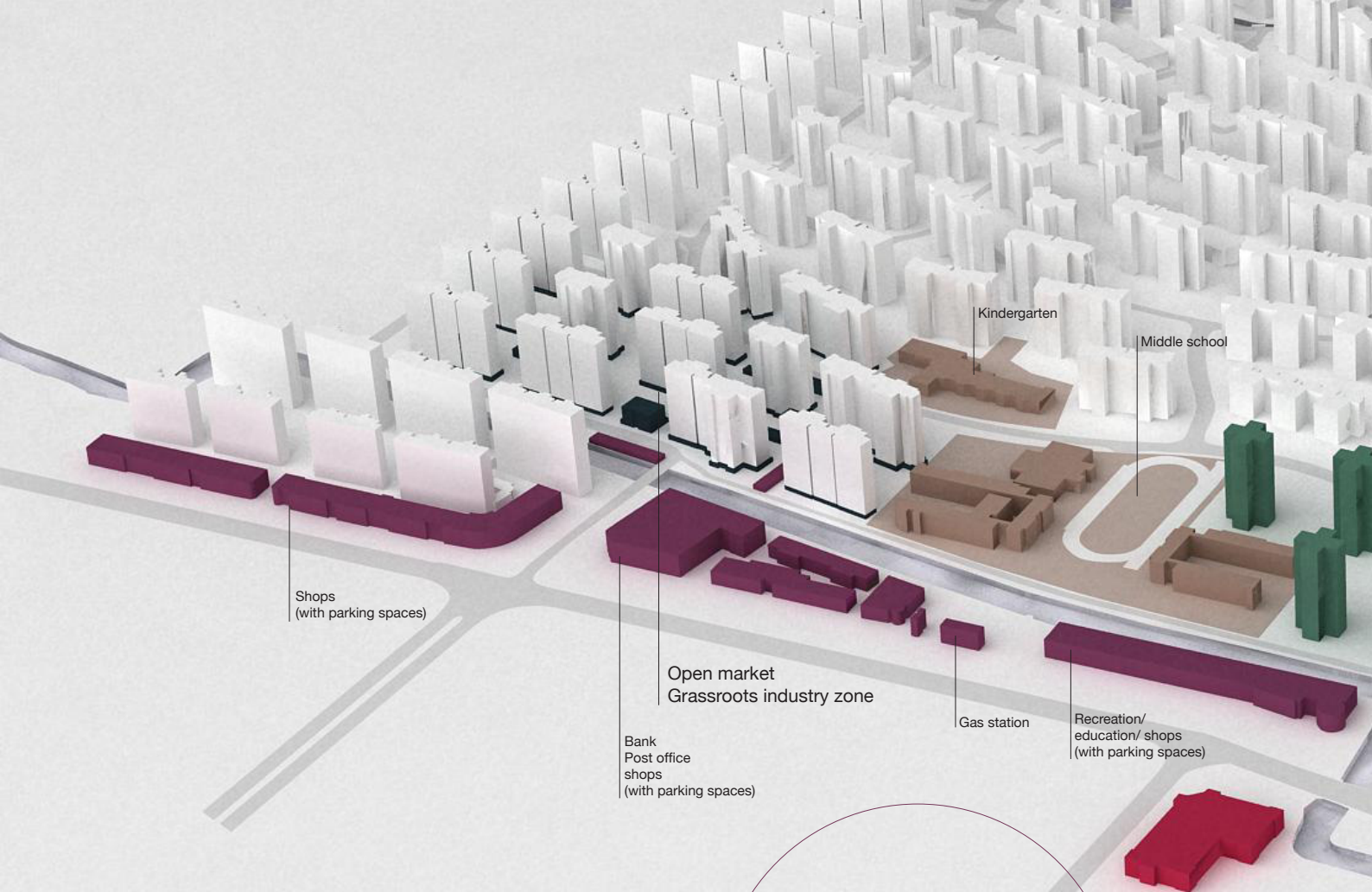
**Fig 5.14: Proposed sub-center (formed by the border area development)
and its position in city structure**

Shanghai Cannes

Metro
station

Xinsong Road

Xinzhuang
CBD
(center of
Minhang District)
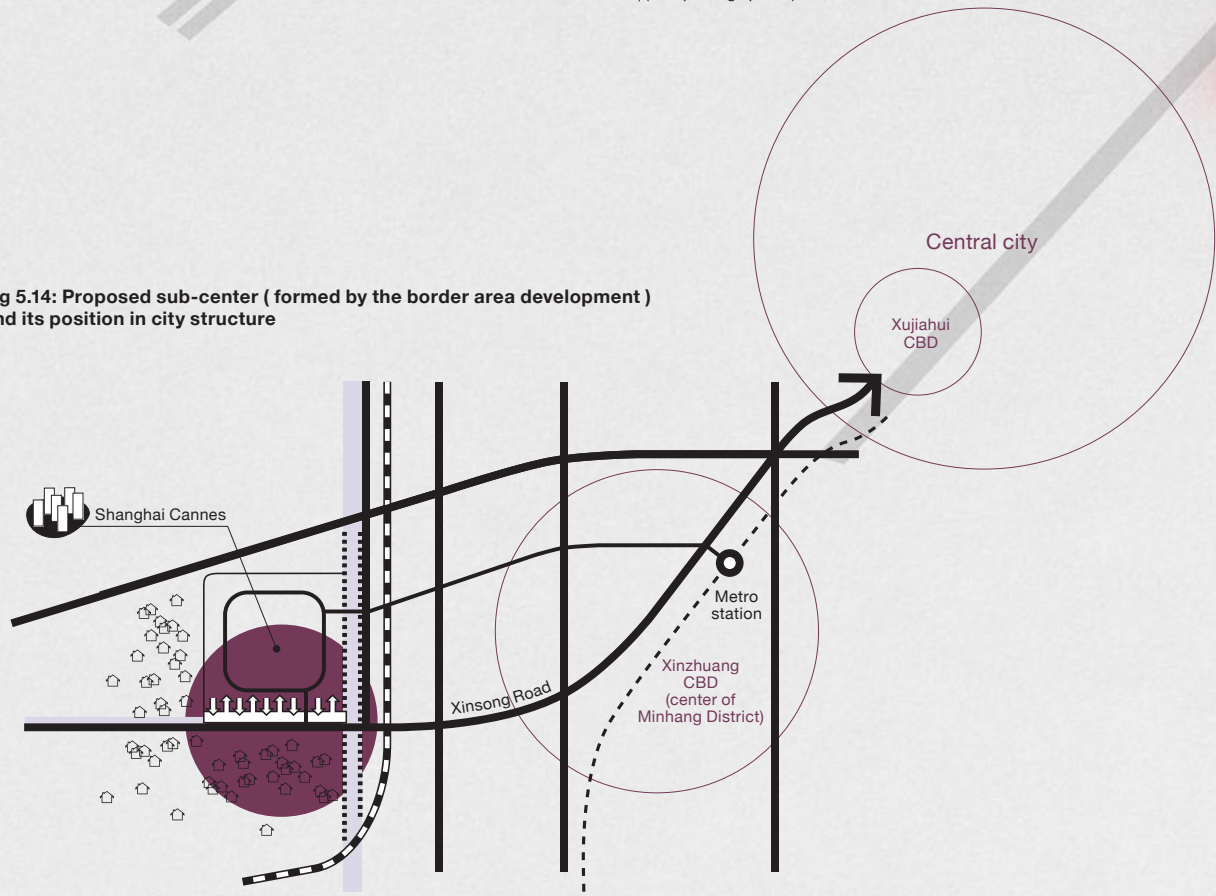
Recidential project
(apartment for small household,middle class)

Wall

Bar/Club

Shopping mall
Office
(underground parking) Park

Mix-use complex

Restaurant
Hotel

Supermarket

Fig 5.13: Proposal for the border area

Highstreet Loft, Location: Shanghai, China
by Kokaistudios

Fig 3.5: Reference for shopping mall+ office complex

Het Kasteel, Location: Amsterdam, The Netherlands
by HVDN

Social Housing Tower Of 75 Units In
Europa Square, Location:Barcelona, Spain
by Roldán + Berengué

De Rokade, Location: Groningen, Netherlands
by Arons en Gelauff Architecten

Fig 5.15: Reference for housing project

Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes

Bumps, Location: Beijing, China
by SAKO Architects

Fig 5.16: Reference for housing project

City			Neighborhood		Dwelling
Surroundings	Border area	Public space	Building		Flat

Problems

Social segregation between car owners and the others ➕

Social segregation between formal and informal residents ➕

Hard public transportation situation ➕

Weak connection to the surrounding urban area

Untidy environment caused by informal commerce converted from ground floor flats ➕

Not pedestrian friendly
Lack of facilities
Not social interactive

Bad living conditions and negative influences of collective renting

Potentials/qualities

Open the ghetto towards Xinsong Rd

Inviting public life

Regulating collective renting

Improved accessibility by car

Development potentials along Xinsong Road

A large quantity of public space

Affordable housing for low-income people

Hazard Lights Action

Social interaction
A sample of resource sharing activity

Resource sharing interpersonal relationship

5.4 Inviting public life

When we open the ghetto, we still need remember the social state of Shanghai Cannes. Informal transformation of dwelling and the unexpected mix living conditions raise the conflicts between residents from different social groups. Besides, new infrastructure development poses a threat of increasing social segregation between the car-owners and the people who depend on public transportation. If we ignore this aspect, although the outside getting better, the neighborhood itself will slip further away from a harmonious and liveable neighborhood.

So to deal with that, we should put a magnet into the neighborhood, which means more attractive public space, community facilities and social interactive programe. Now in Shanghai Cannes, people lack the motivation to go and stay in outdoor space of the neighborhood, because there're less thing can do. What we need to do is inviting public life, make residents have nice place to walk and have interesting social activities to join, therefore we can facilitate social interaction and create a liveable neighborhood.

As a core of the strategy, a new street and public space network will proposed to encourage social interaction.

Streets classification+parking control

According to the principle of designing good community, streets have an overt social purpose. They are to be thought of as public space much more than voids between buildings and therefore must be made to accommodate the pedestrian (Calthorpe, 1993). Streets are designed to encourage street life, since any increase in pedestrian activity is thought to strengthen community bonds and promote sense of place. Streets are to be a place where pedestrians feel safe, so that residents are encouraged to use streets (sidewalks), thereby strengthening the chance for social encounter(Talen, 1999).

In current situation of Shanghai Cannes, there are no clear classification of street. Car, bicycle and pedestrian flow all lump together. As The quality of stay is important for social interaction, traffic spaces provide less room that can be experienced by persons as a context for activities and interaction(Van Dorst, 2010). Therefore, the street system in Shanghai Cannes lacks the quality in facilitating social interaction. And it also has negative influence on the use of public space, because people can not totally relax when walking in the neighborhood.

Therefore, make clear classification of street and create more pedestrian friendly neighborhood is the first step of the strategy to invite public life.
The proposed street system will strengthen a ring road, which is the middle level connecting the neighborhood streets to city road network. It allows transfer buses go around and ply between Shanghai Cannes and the metro station. The rest streets will be divided into car roads and pedestrian roads.

Another problem is parking. There are two kinds of parking space in Shanghai Cannes, respectively ground parking space and the underground garage. The current situation is people prefer to park their car as close as their home, usually the public space around their residential building. Therefore, the car user have very limited opportunities of social interaction.

As shared pathways to parking space can increase the potential of social interaction. In my plan the fixed ground parking spaces in front of the building is proposed to be cancelled to prevent residents from walking straightly from their home and getting into their car.
Even so there still a lot of gateways can shortly access from the apartment building, so a part of the strategy is to strengthen some parking gateways which are inside of the public space, make them more attractive.
The intervention can focus on the routing joint such as a well designed stair connecting the parking space to fresh air, or pathway crossing the green public space with news-stand or snack bar along it. It is reasonable for car user to choose such a short walk after long time driving.

Current traffic situation inside Shanghai Cannes

Parking occupying the public space

Less used underground garage

0 10 20   50   100m

N

Fig 5.18: Plan of road system

City road
Ring road
Secondary Road
Pedestrain road

Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes
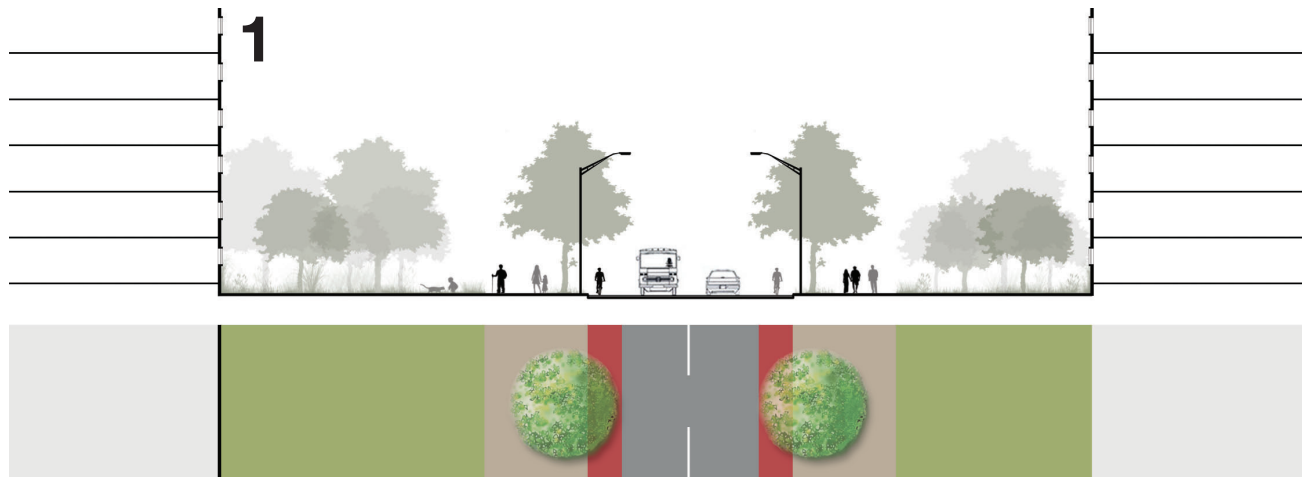
1 Ring road (Bus route)

2 Secondary road

3 Pedestrain road
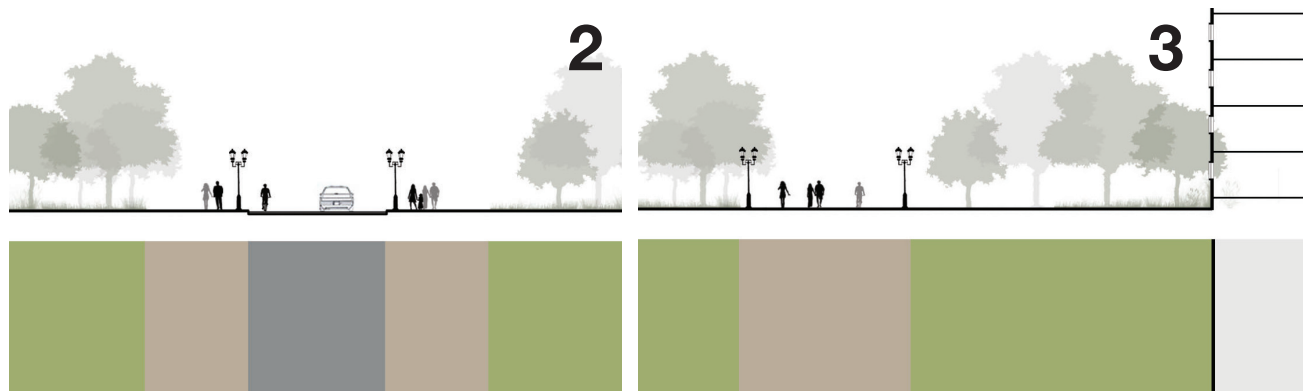
Fig 5.19: Section of road system

Public space revitalization

This part of the strategy is mainly about revitalize the public space. My strategy is to form a new system of public space by strengthening the existing qualities and discovering local potentials (bottom up strategy). It is a huge neighborhood, it is impossible and unnecessary to rebuild it. So in some area, the interventions are small such as green house, connective waterfront, but they work to link the exiting quality such as green space, water and facilities, make the public space a platform of social interaction. And in the center, it will be a mix-use area, where I emphasis the design.

Green house zone

Market+grassroots industry zone

Artificial mountain

Community garden

Central mix-use area

Education-oriented
children friendly area

Connective waterfront

Riverbank public space

Exisng functions

market

kindergarten

commercial

middle school

main
bus stop

Abandoned public buildings and empty land

90% abandoned

80%
abandoned

community
service building
60% abandoned

empty land
outside of the wall

Public spaces with potential for improvement

artificial mountain

River and waterscape

waterfront

riverbank

riverbank

Fig 5.20: Public revitalization strategy based on existing quality and potential

Neighborhood regeneration master plan

Community garden

Connective waterfront

Artificial mountain

Green house zone

Central mix-use area

Riverbank public space

Education-oriented children friendly area

Market+grassroots industry zone

Legend

Public space node

- Commercial
- Community facility
- Proposed green
- Community garden
- Green house
- Square
- Sports field
- Office/studio
- Open market
- Temporary parking

- Common house (independent)
- Common house (extension of ground floor flats)
- Common house (on top of the building)

- Road
- Pedestrian
- Bus line

- Bus stop
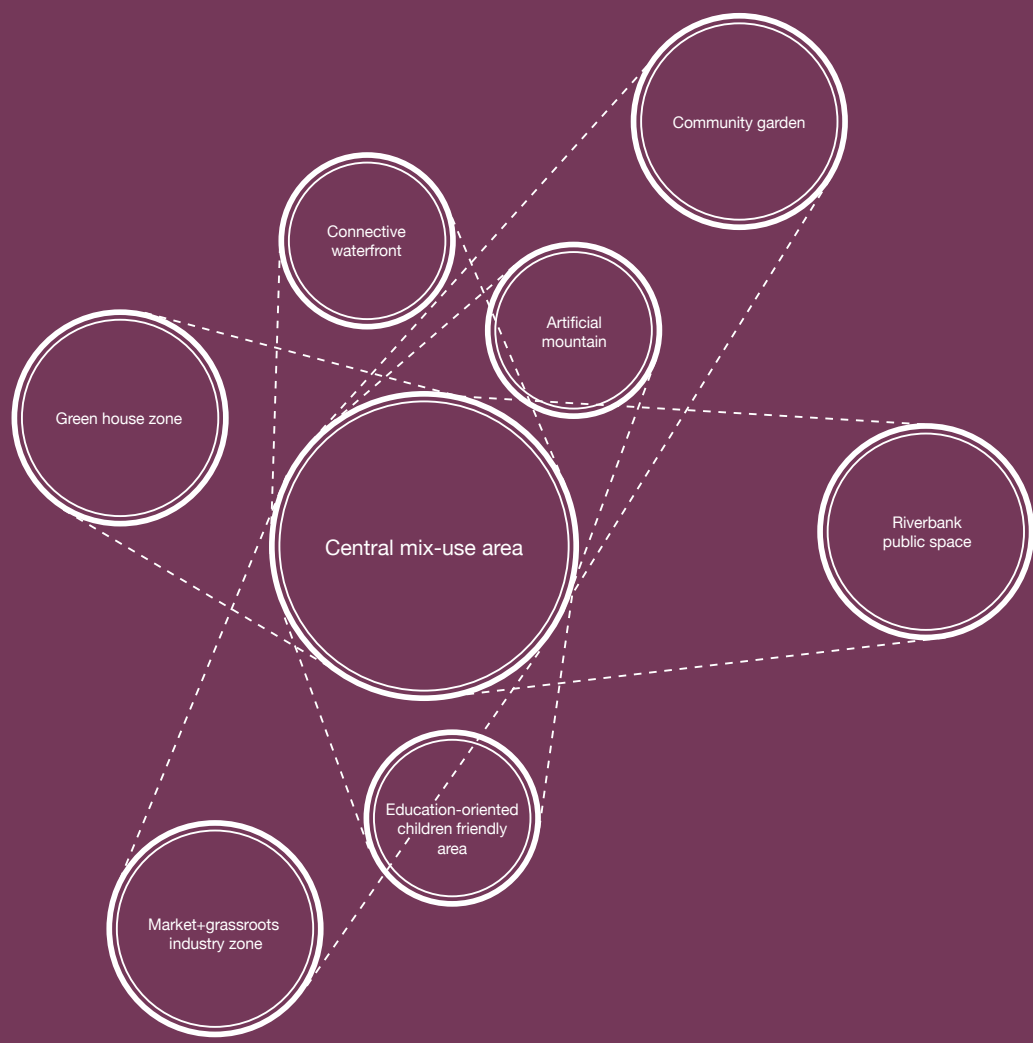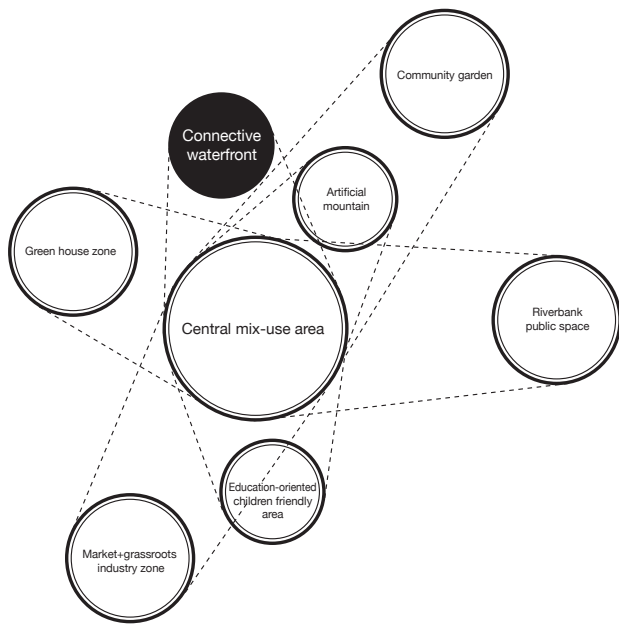- Neighborhood boundary
- Wall(neighborhood boundary)

Fig 5.21: Neighborhood regeneration master plan
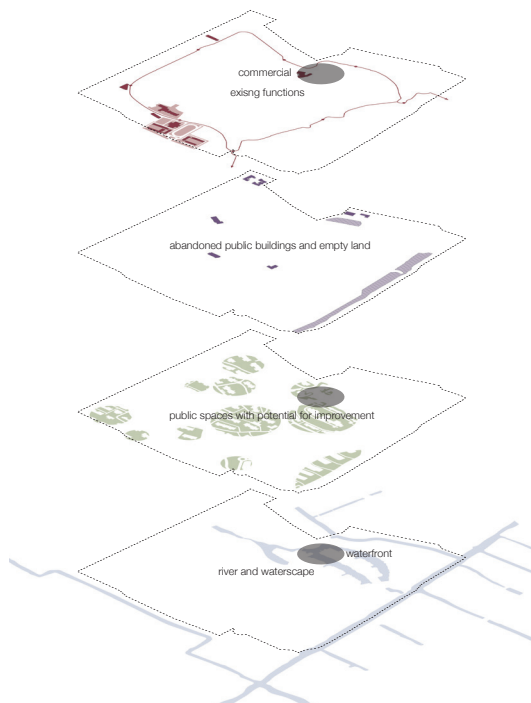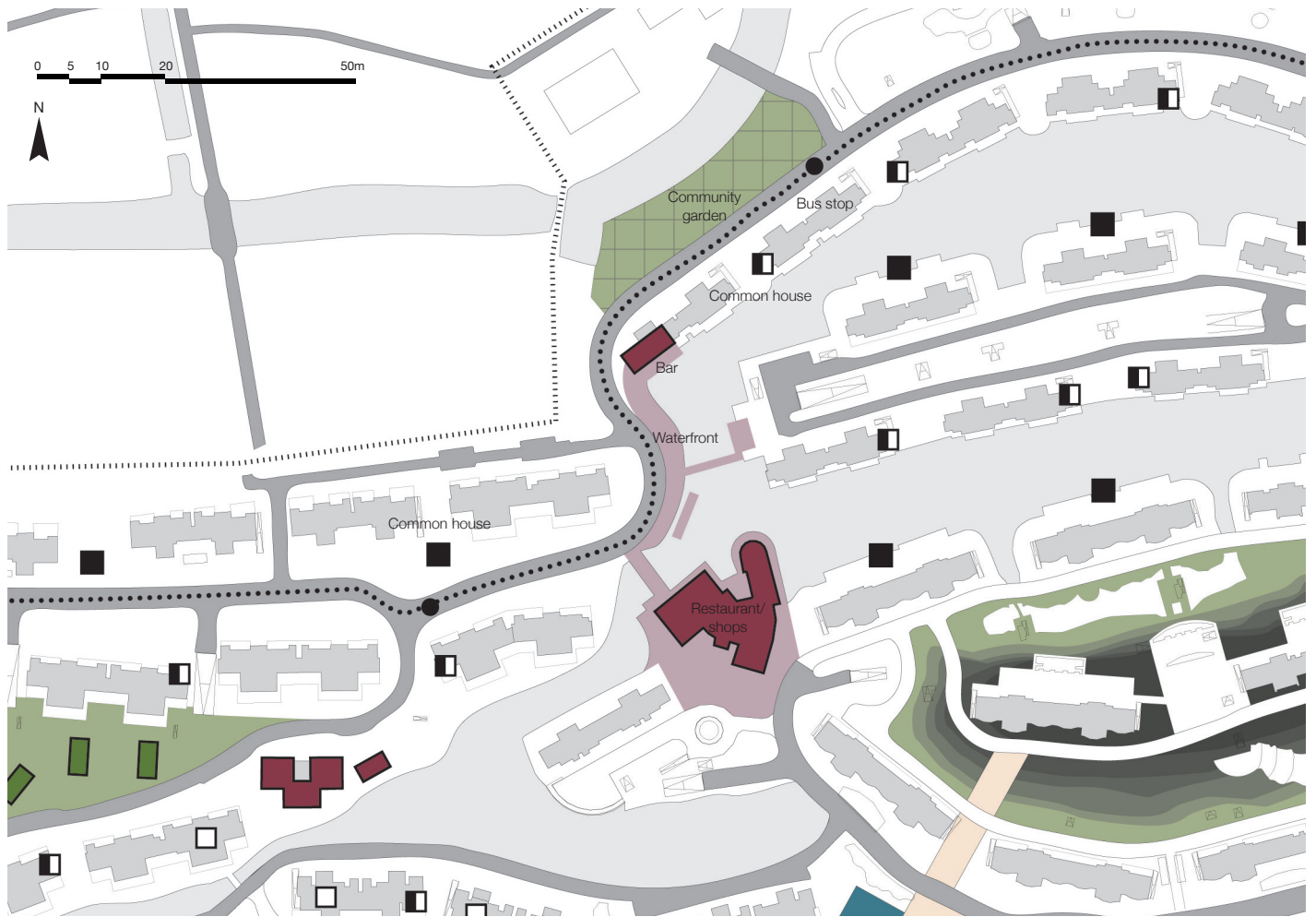
Connective waterfront

-Take advantage of the existing quality such as waterscape in the neighborhood
-Link the separated residential areas
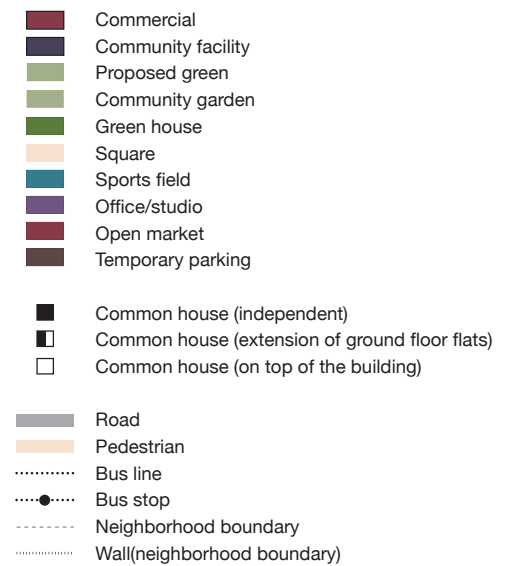-Strengthen the local commercial

Connective waterfront

Community garden

Artificial mountain

Green house zone

Central mix-use area

Riverbank public space

Education-oriented children friendly area

Market+grassroots industry zone

Scale: 0 5 10 20 50m

N

Labels on main map:
- Community garden
- Bus stop
- Common house
- Bar
- Waterfront
- Common house
- Restaurant/ shops

commercial
exisng functions

abandoned public buildings and empty land

public spaces with potential for improvement

river and waterscape

waterfront

Existing qualities/potentials

Legend:
- Commercial
- Community facility
- Proposed green
- Community garden
- Green house
- Square
- Sports field
- Office/studio
- Open market
- Temporary parking

- Common house (independent)
- Common house (extension of ground floor flats)
- Common house (on top of the building)

- Road
- Pedestrian
- Bus line
- Bus stop
- Neighborhood boundary
- Wall(neighborhood boundary)

Fig 5.22: Connective waterfront plan

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Fig 5.23: Connective waterfront vision

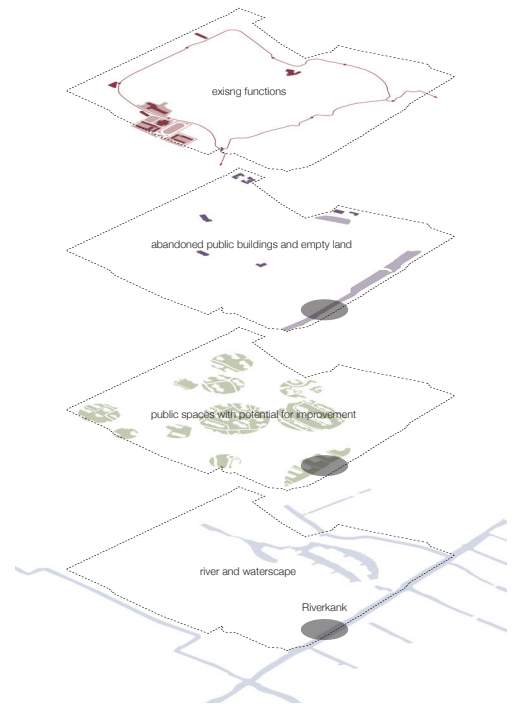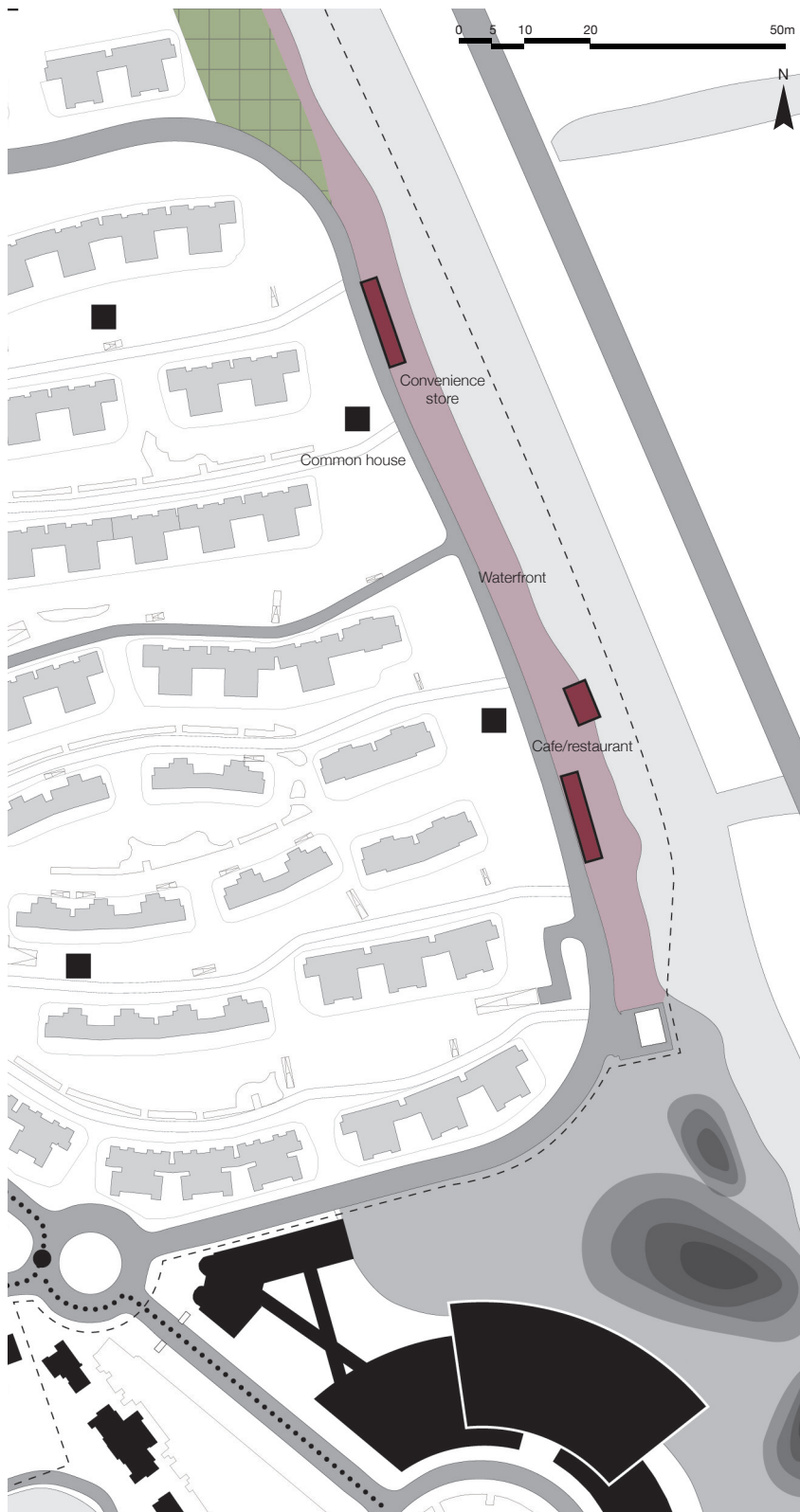Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes

Riverbank public space

- Take off the wall of neighborhood
- Form pedestrian friendly riverbank public space

Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes

Convenience
store

Common house

Waterfront

Cafe/restaurant

N

0 5 10   20   50m

exisng functions

abandoned public buildings and empty land

public spaces with potential for improvement

river and waterscape

Riverkank

Existing qualities/potentials

Commercial
Community facility
Proposed green
Community garden
Green house
Square
Sports field
Office/studio
Open market
Temporary parking

Common house (independent)
Common house (extension of ground floor flats)
Common house (on top of the building)

Road
Pedestrian
Bus line
Bus stop
Neighborhood boundary
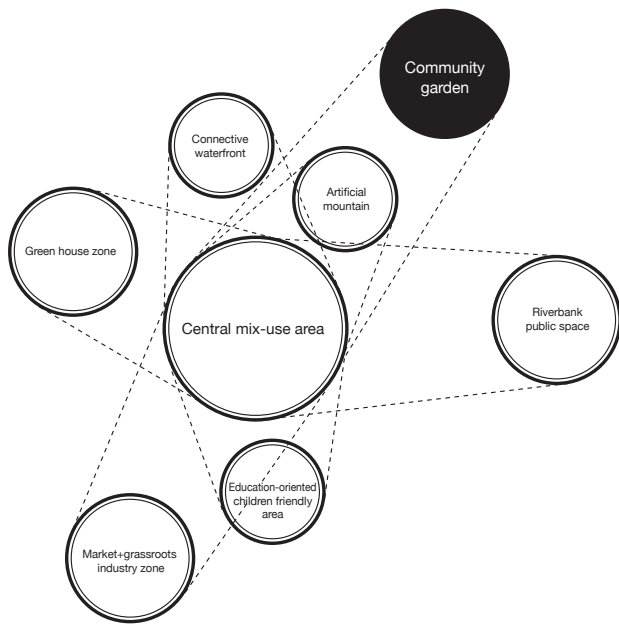Wall(neighborhood boundary)

Fig 5.24: River bank public space plan
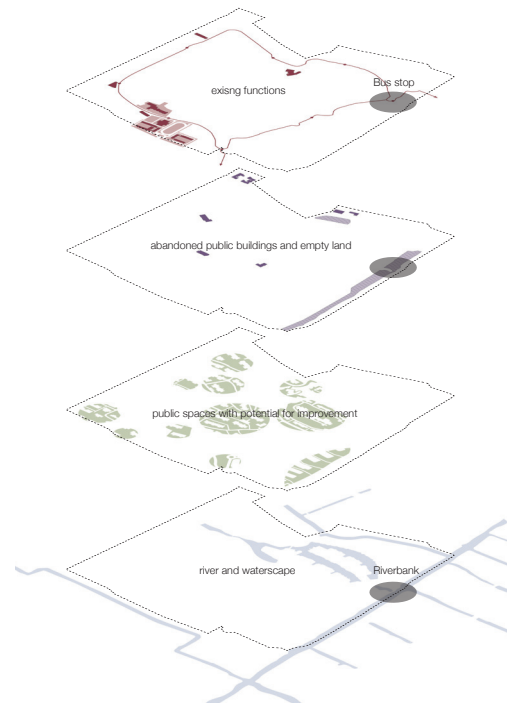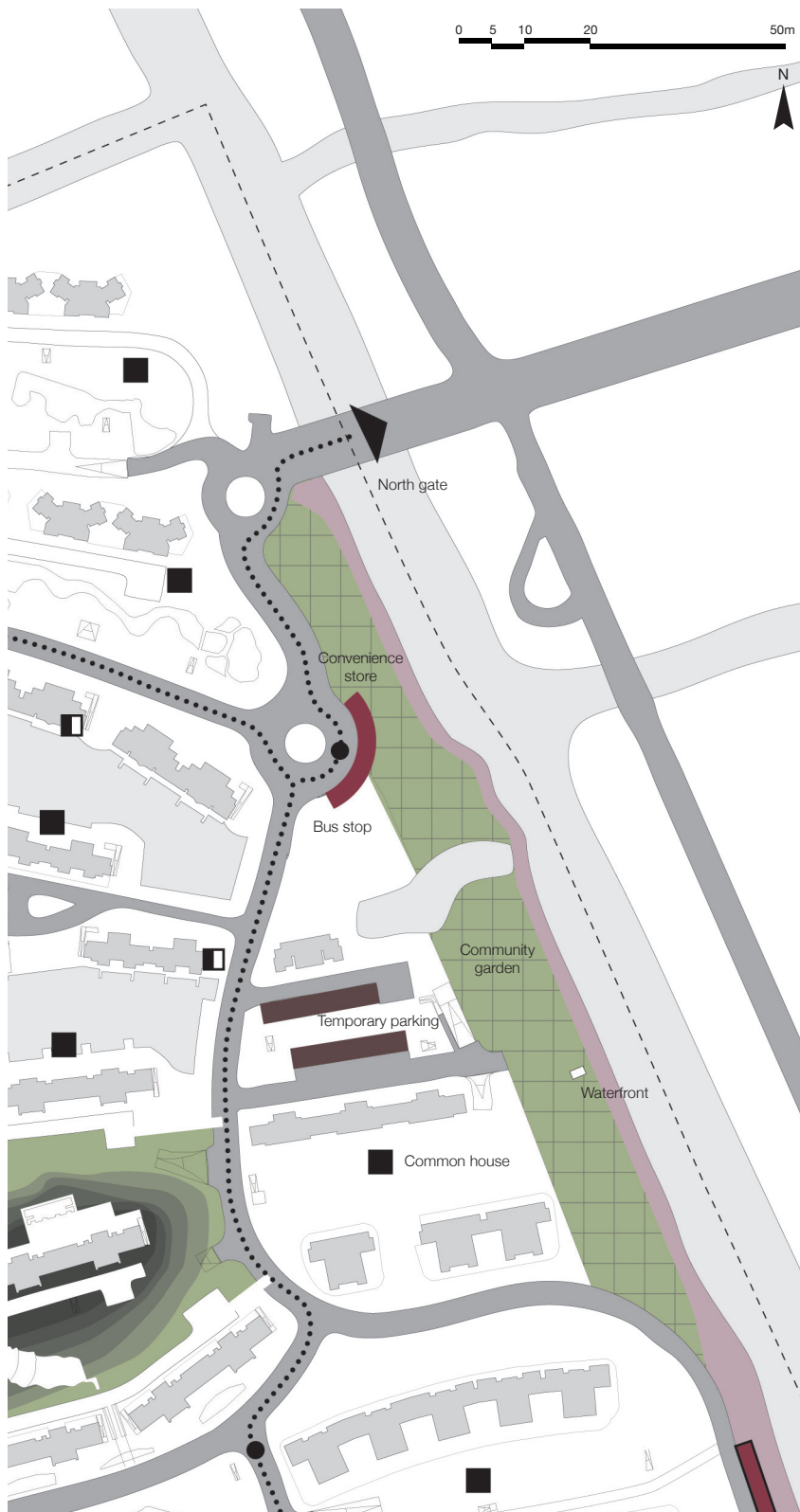
Fig 5.25: River bank public space vision

Community garden

- Use community garden as a place for social interaction
- Link with the riverbank public space
- Integrate the bus stop, convenience store and the community garden as a complex

Fig 5.26: Community garden plan

Legend:
- Commercial
- Community facility
- Proposed green
- Community garden
- Green house
- Square
- Sports field
- Office/studio
- Open market
- Temporary parking

- ■ Common house (independent)
- ◧ Common house (extension of ground floor flats)
- □ Common house (on top of the building)

- Road
- Pedestrian
- ············ Bus line
- ·····●····· Bus stop
- – – – – Neighborhood boundary
- ············ Wall(neighborhood boundary)

Map labels: North gate, Convenience store, Bus stop, Community garden, Temporary parking, Waterfront, Common house

Existing qualities/potentials

Labels: existing functions, Bus stop, abandoned public buildings and empty land, public spaces with potential for improvement, river and waterscape, Riverbank

Fig 5.27: Community garden vision

Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes
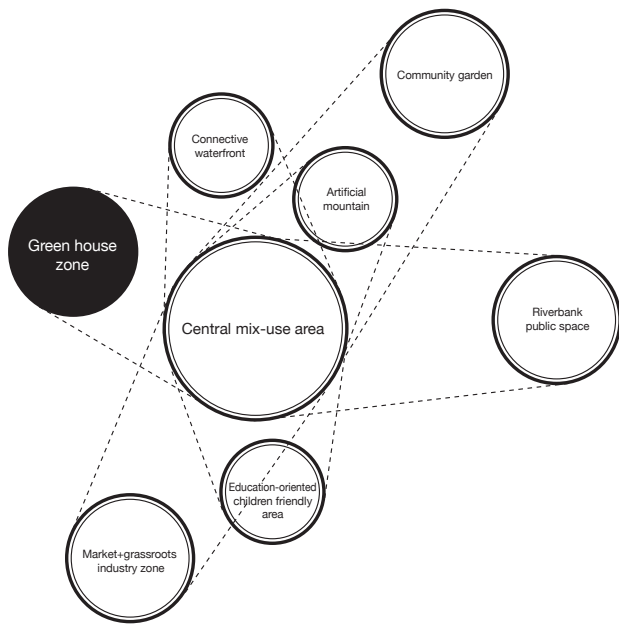
Green house zone

- Use green house to attractive people visit this zone
- Neighborhood participation programe
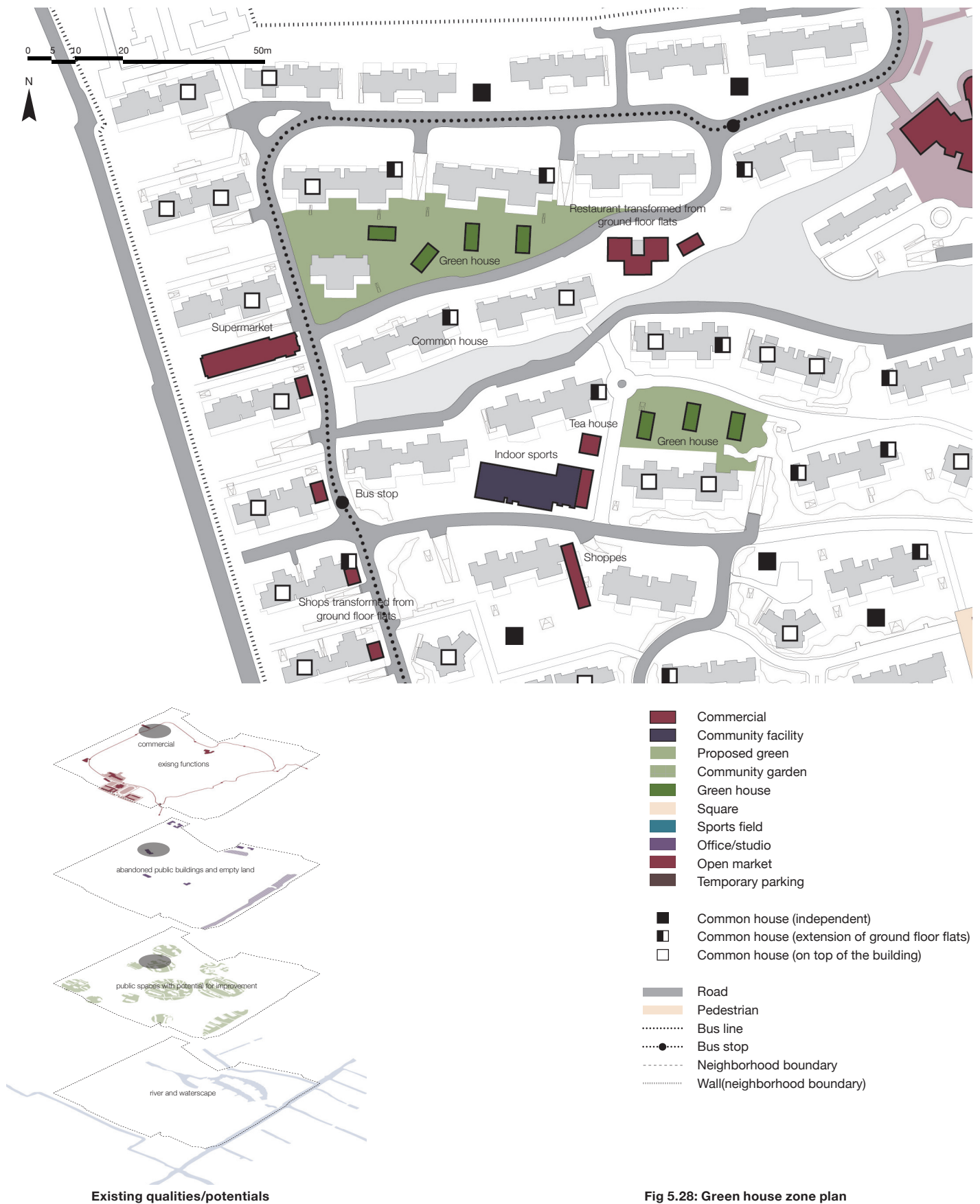- Reuse the abandoned building as a place for indoor sports and recreaiton activities

Restaurant transformed from
ground floor flats

Green house

Supermarket

Common house

Tea house

Green house

Indoor sports

Bus stop

Shoppes

Shops transformed from
ground floor flats

commercial

exisng functions

abandoned public buildings and empty land

public spaces with potential for improvement

river and waterscape

Existing qualities/potentials

🟥	Commercial
🟦	Community facility
🟩	Proposed green
🟩	Community garden
🟩	Green house
🟧	Square
🟦	Sports field
🟪	Office/studio
🟥	Open market
🟫	Temporary parking
⬛	Common house (independent)
◧	Common house (extension of ground floor flats)
☐	Common house (on top of the building)
▬	Road
▬	Pedestrian
··········	Bus line
····●····	Bus stop
- - - - -	Neighborhood boundary
··········	Wall(neighborhood boundary)

Fig 5.28: Green house zone plan

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Fig 5.29: Green house zone vision

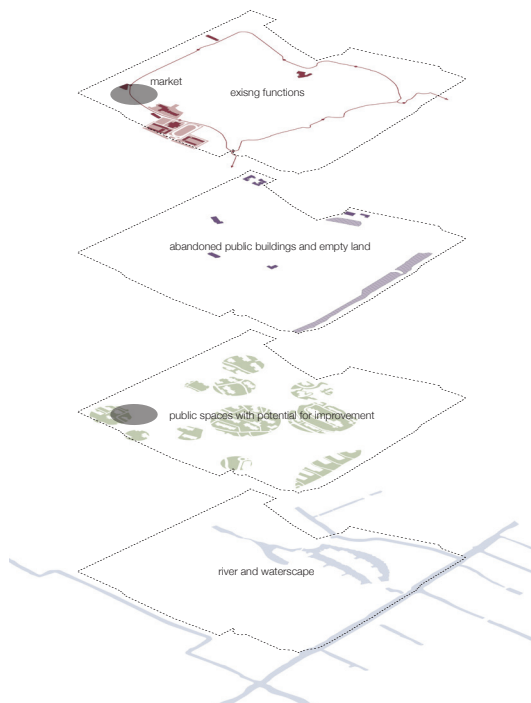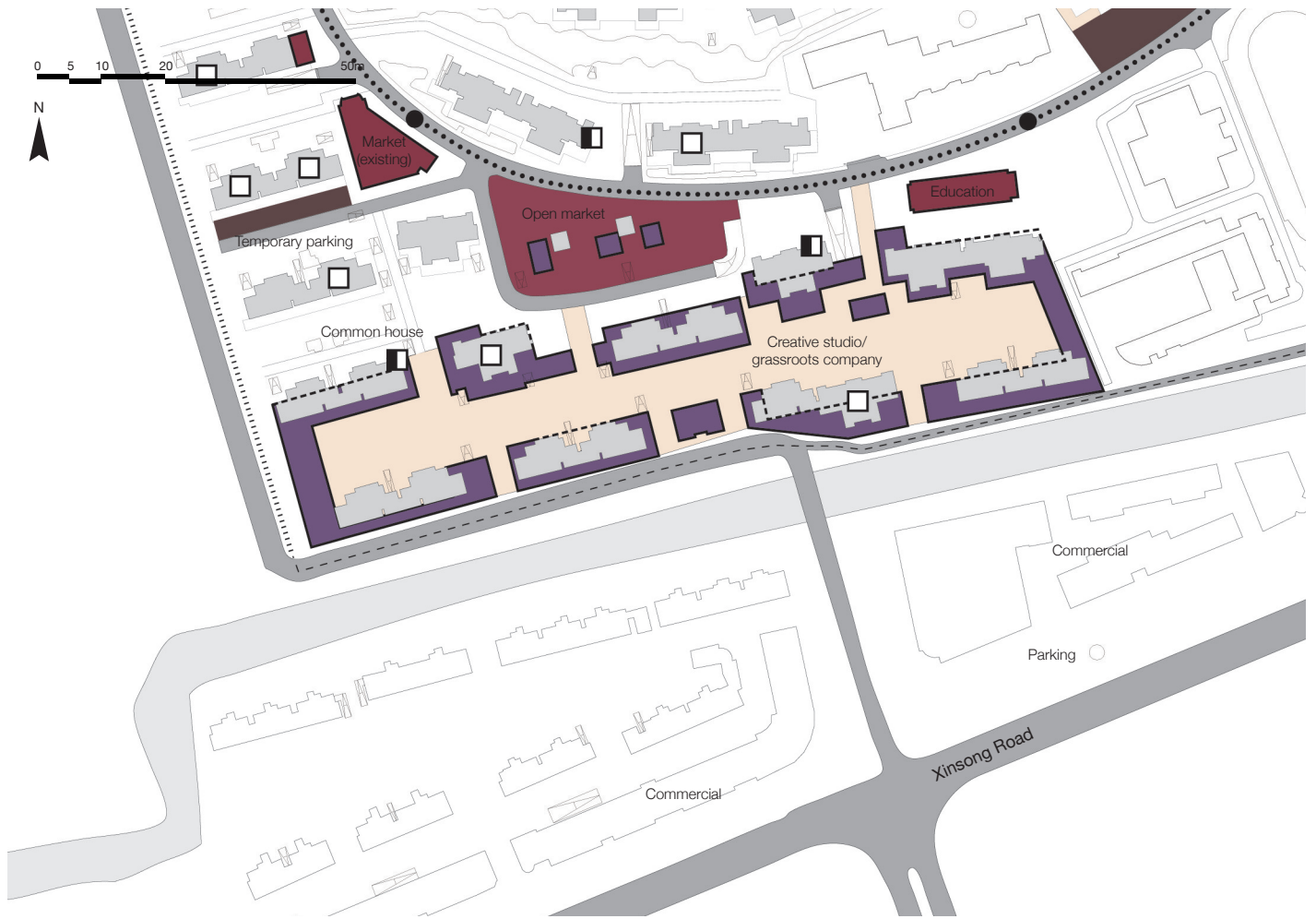Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes

Market + grassroots industry zone

- A merge point between "open the ghetto" and regeneration intervention inside the neighborhood
- Strengthen the local quality of grassroots industry
- Create an area with creative studio and office for small company
- In order to attractive visitors, an open market for flowing pedlar will proposed to strengthen the quality of local commercial

Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes

0 5 10 20   50m

N

Market
(existing)

Temporary parking

Open market

Education

Common house

Creative studio/
grassroots company

Commercial

Parking

Commercial

Xinsong Road

market

exisng functions

abandoned public buildings and empty land

public spaces with potential for improvement

river and waterscape

Existing qualities/potentials

■	Commercial
■	Community facility
■	Proposed green
■	Community garden
■	Green house
■	Square
■	Sports field
■	Office/studio
■	Open market
■	Temporary parking

■	Common house (independent)
◧	Common house (extension of ground floor flats)
□	Common house (on top of the building)

▬	Road
▬	Pedestrian
⋯⋯	Bus line
⋯●⋯	Bus stop
----	Neighborhood boundary
⋯⋯	Wall(neighborhood boundary)

Fig 5.30: Market + grassroots industry zone plan

Fig 5.30: Grassroots industry zone vision

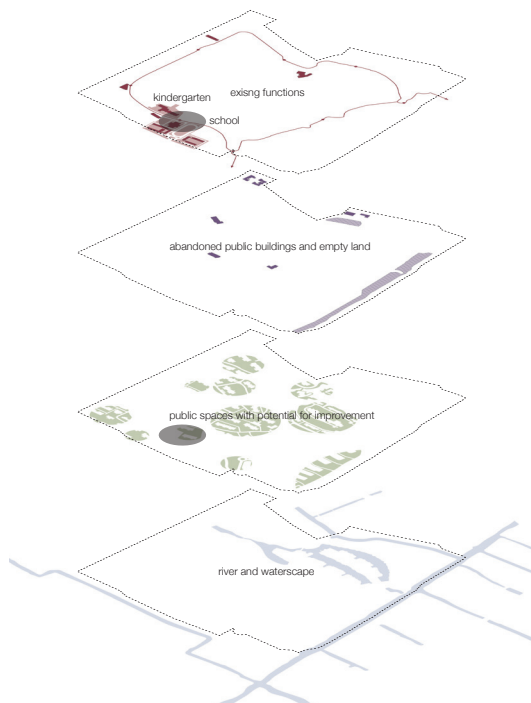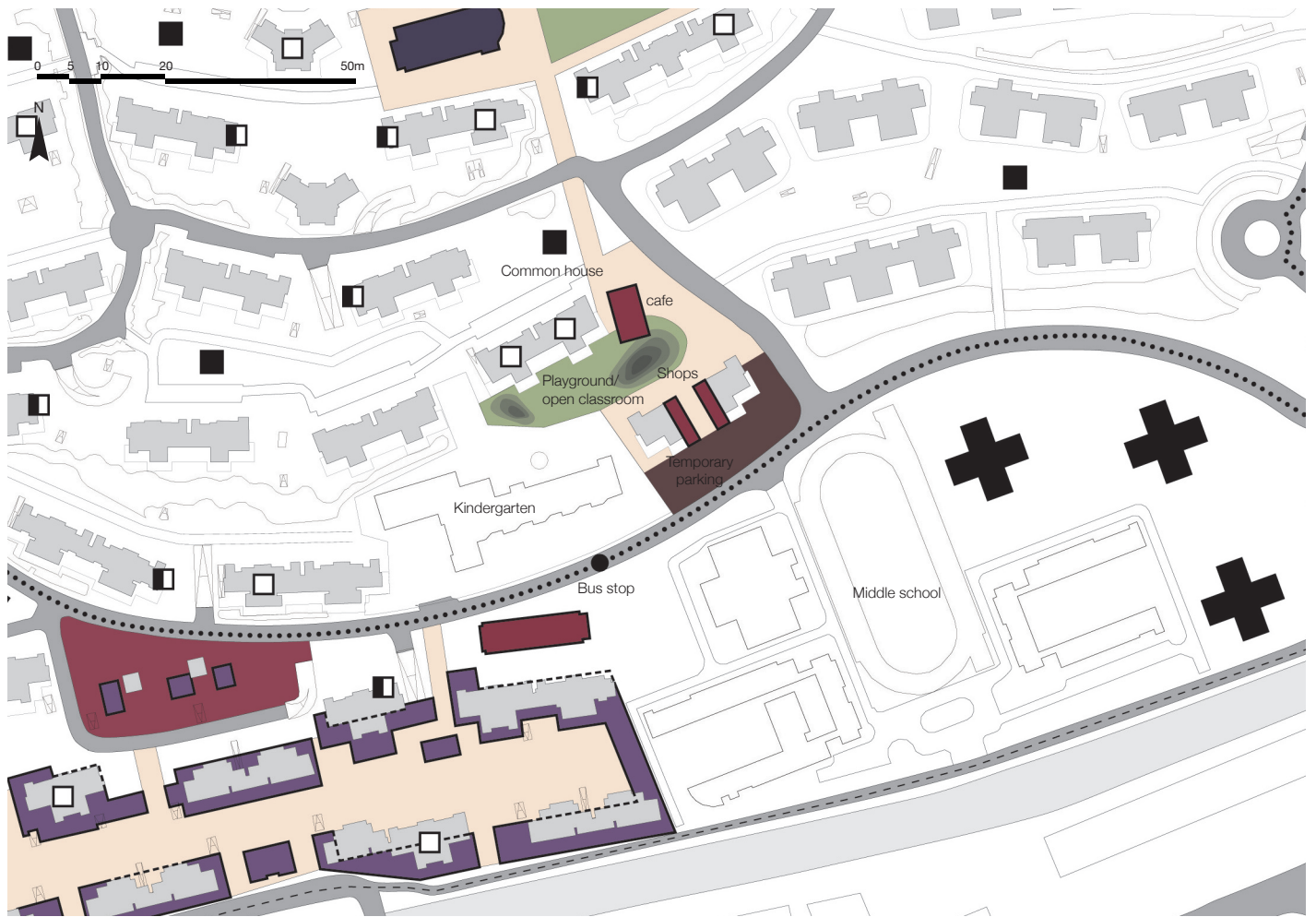Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes
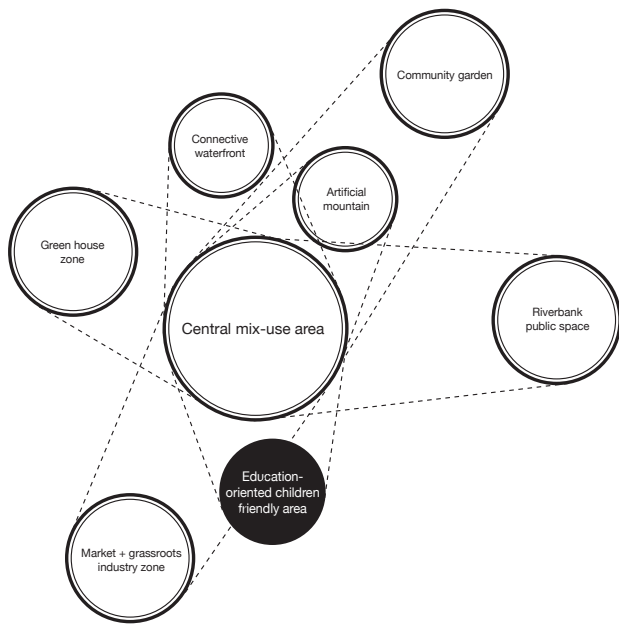
Education-oriented children friendly area

- Create a spatial linkage between public space and the kindergarten and middle school
- Provide place for parents meeting each other
- Public space also can be used as outdoor classroom
- Transform the groud floor flats into cafe or small shop

Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes

0 5 10   20   50m

N

Common house

cafe

Playground/
open classroom

Shops

Temporary
parking

Kindergarten

Bus stop

Middle school

exisng functions

kindergarten
school

abandoned public buildings and empty land

public spaces with potential for improvement

river and waterscape

Existing qualities/potentials

Commercial	
Community facility	
Proposed green	
Community garden	
Green house	
Square	
Sports field	
Office/studio	
Open market	
Temporary parking	

Common house (independent)

Common house (extension of ground floor flats)

Common house (on top of the building)

Road

Pedestrian

Bus line

Bus stop

Neighborhood boundary

Wall(neighborhood boundary)
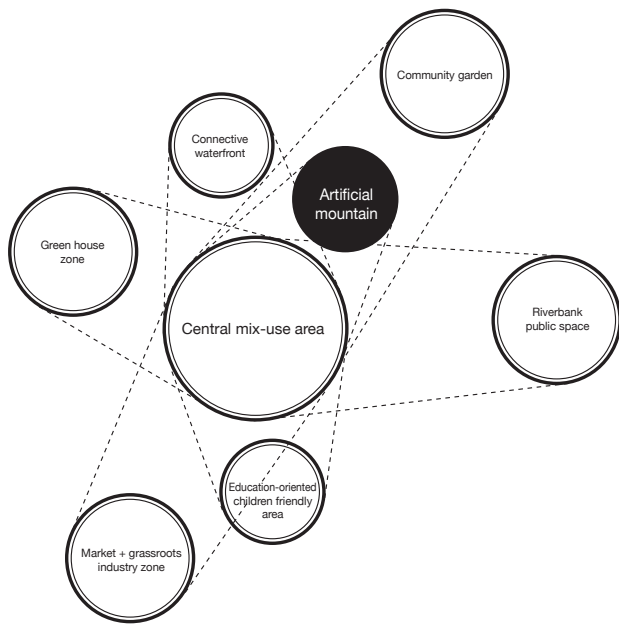
Fig 5.32: Education-oriented children friendly area plan

Fig 5.33: Education-oriented children friendly area vision

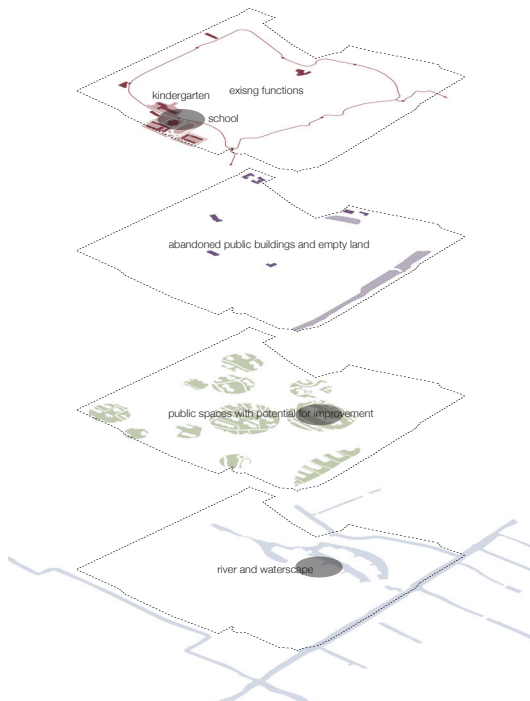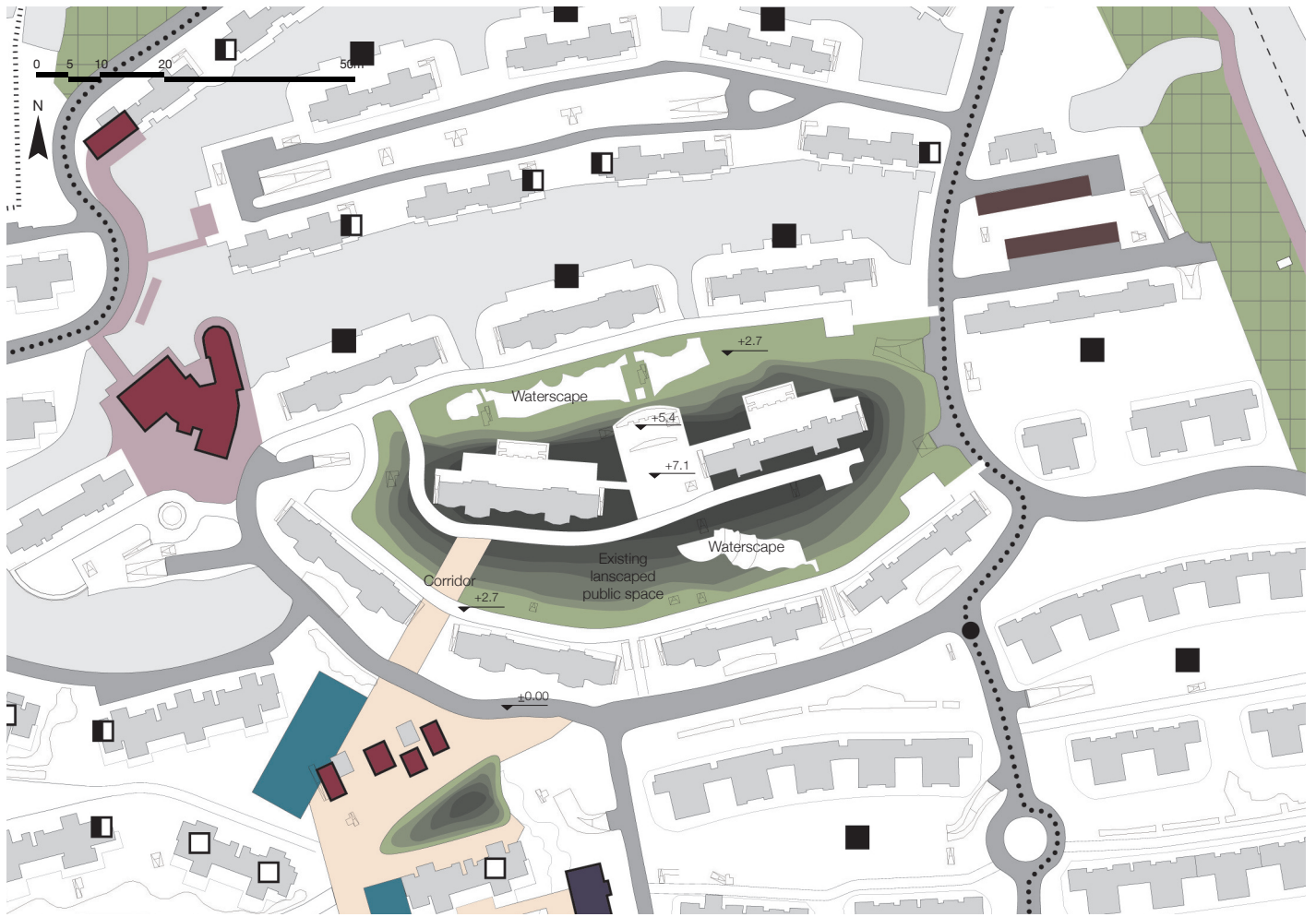Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes

Artificial mountain (existing)

- Create a corridor to link the artificial mountian area with the central mix-use area
- Introduce the exisitng well-designed public space to the whole neighborhood

+2.7

Waterscape

+5.4

+7.1

Waterscape

Existing
lanscaped
public space

Corridor

+2.7

±0.00

kindergarten   exising functions

school

abandoned public buildings and empty land

public spaces with potential for improvement

river and waterscape

Existing qualities/potentials

![] Commercial	
![] Community facility	
![] Proposed green	
![] Community garden	
![] Green house	
![] Square	
![] Sports field	
![] Office/studio	
![] Open market	
![] Temporary parking	

■ Common house (independent)
◧ Common house (extension of ground floor flats)
□ Common house (on top of the building)

Road
Pedestrian
Bus line
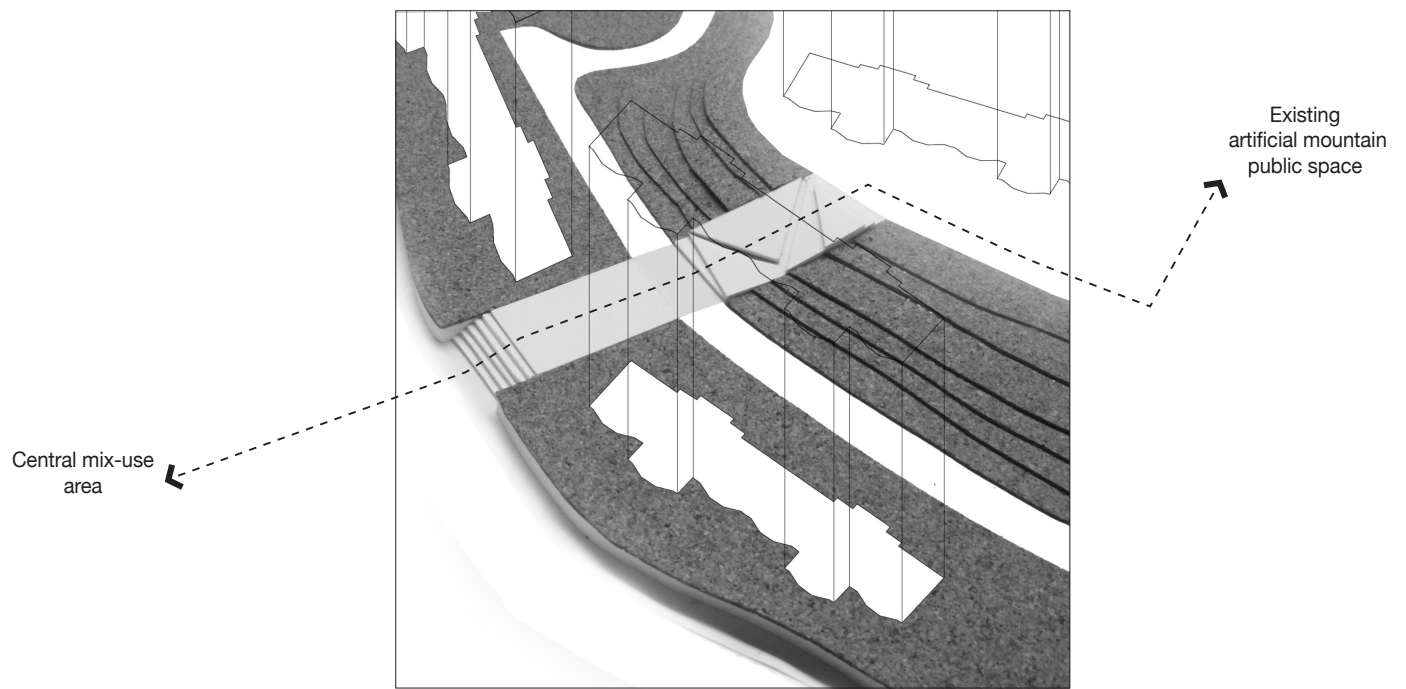● Bus stop
Neighborhood boundary
Wall(neighborhood boundary)
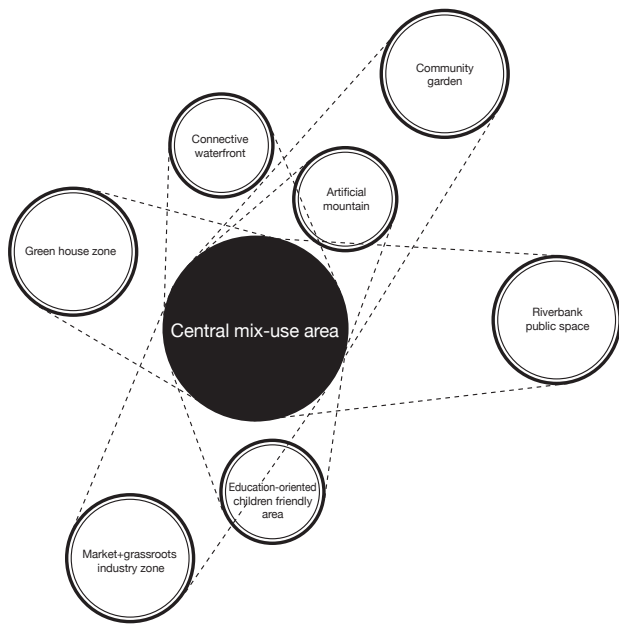
Fig 5.33: Artificial mountain connecting plan

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Fig 5.34: Artificial mountain connecting plan

Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes

Existing
artificial mountain
public space

Central mix-use
area

Central mix-use area

- Transform the underground garage into sunken squre with commercial arround it
- Create sports fields
- Reuse the abandoned building as community library and community service center
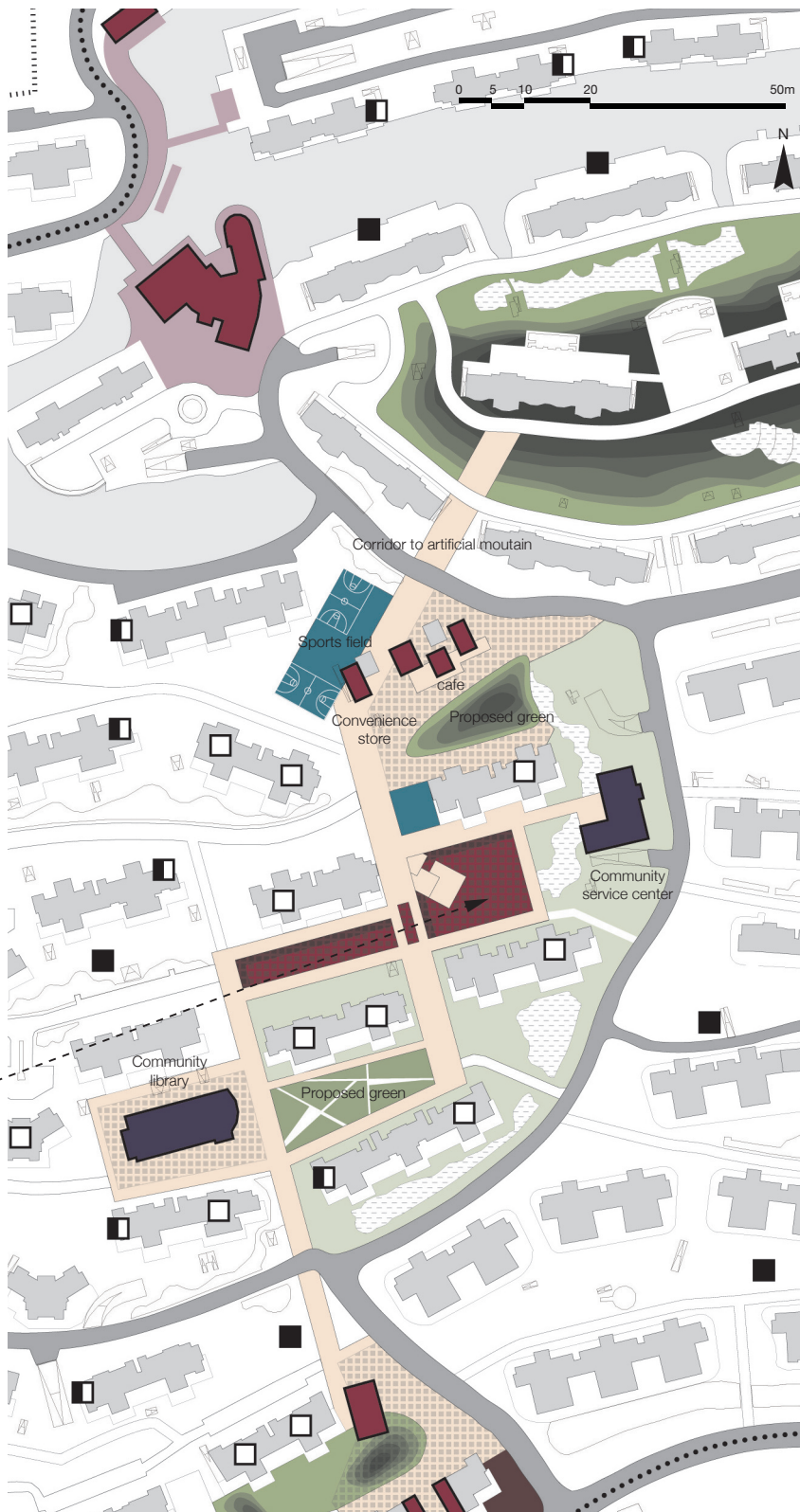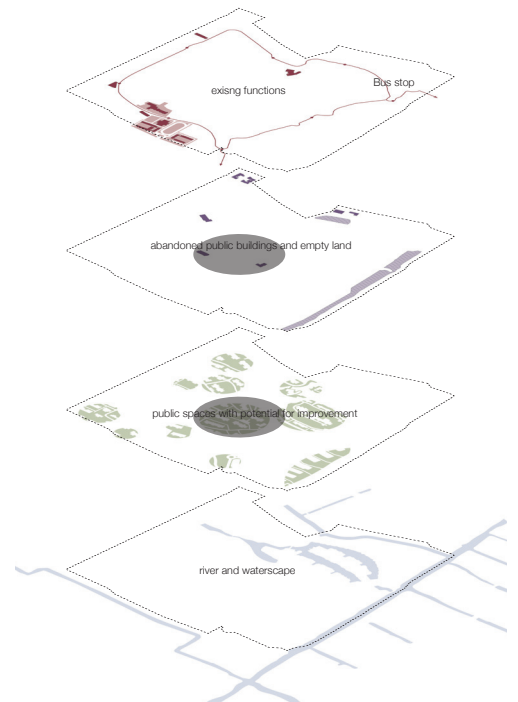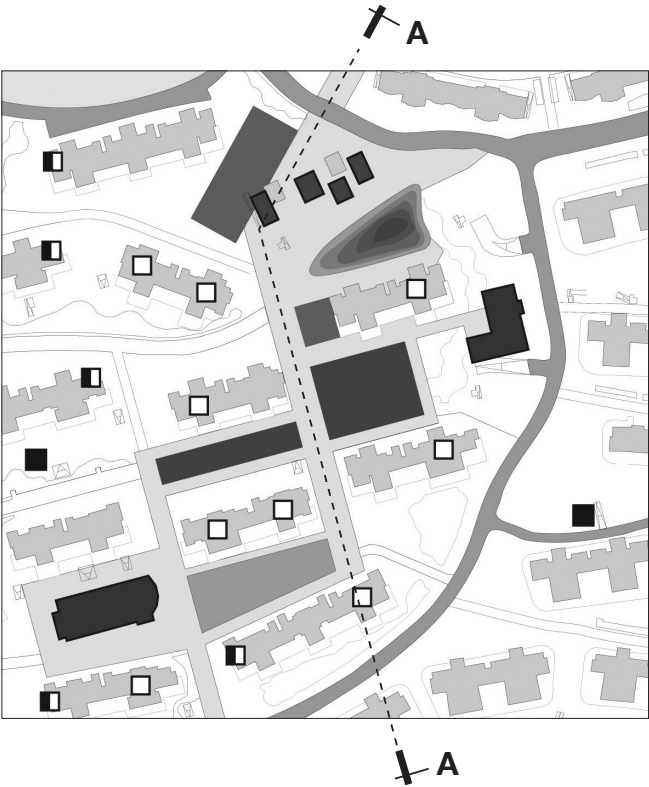- New landscape design

Corridor to artificial moutain

Sports field

cafe

Convenience
store

Proposed green

Community
service center

Community
library

Proposed green

Existing qualities/potentials

exisng functions

Bus stop

abandoned public buildings and empty land

public spaces with potential for improvement

river and waterscape

0 5 10   20   50m

N

	Commercial
	Community facility
	Proposed green
	Community garden
	Green house
	Square
	Sports field
	Office/studio
	Open market
	Temporary parking

■	Common house (independent)
▨	Common house (extension of ground floor flats)
☐	Common house (on top of the building)

Road
Pedestrian
Bus line
Bus stop
Neighborhood boundary
Wall(neighborhood boundary)

Fig 5.34: Plan of central mix-use area

A

A

Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes

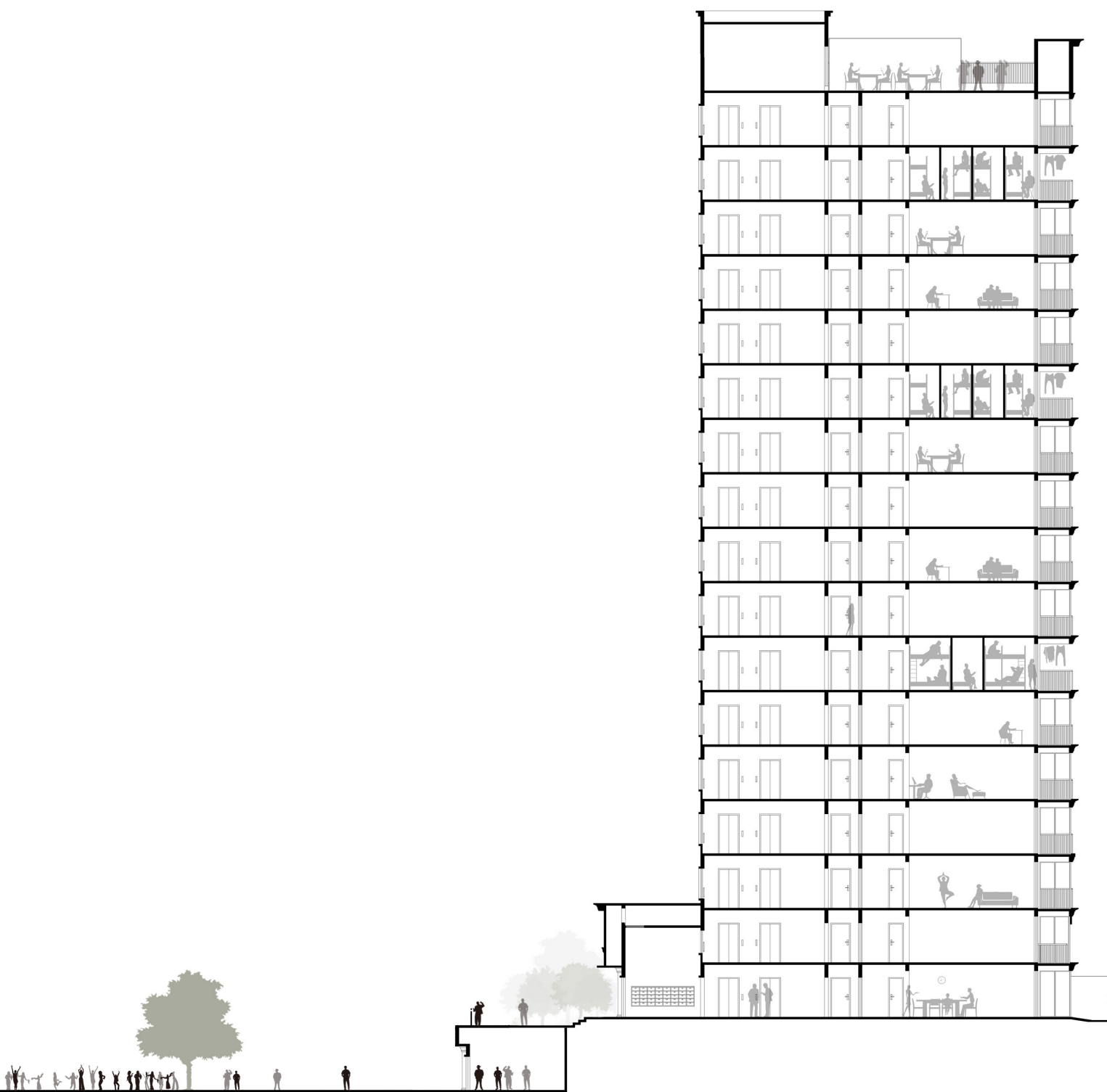Master thesis TU Delft   **Fig 5.35: Model of central mix-use area**

Fig 5.36: Section of central mix-use area (A-A) 1:300
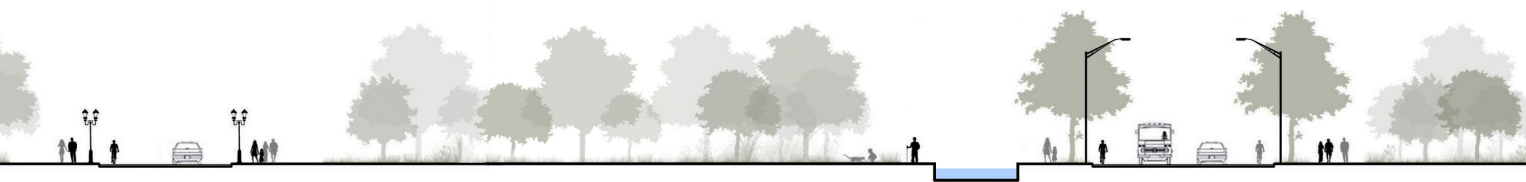
5.6 Conclusion

Regulating collective renting
Neighborhood self-organization, let residents participate in the game

Open the ghetto
Exploring the external potential that the Neighborhood regeneration can benefit form or supported by
Use the local idle resource to exchange the opportunity for more profitable neighborhood upgrading

Inviting public life
Strengthen the existing qualities and discover local potentials (bottom up strategy)

Facilitating Social Interaction: Neighborhood Revitalization Strategy of Shanghai Cannes

Chatper 6
Reflection

Top
down
City scale
development

Other
external
opportunity

Other
external
opportunity

Surroundings

?

Linkage
strategy

Surburban
high-density
neighborhood

Bottom
up
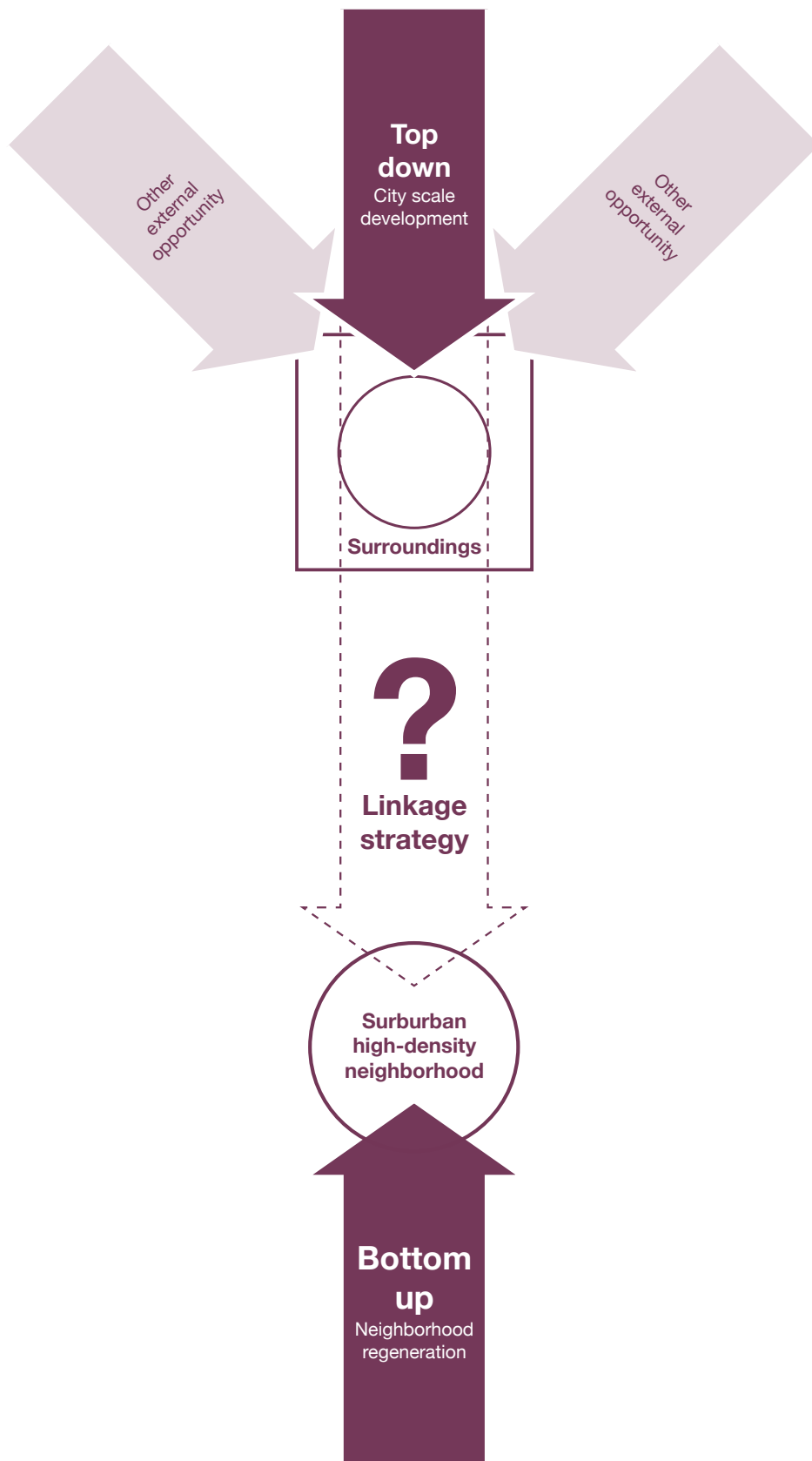Neighborhood
regeneration

Fig 6.1: Flexiable linkage strategy

This strategy package can aslo work in the other suburban high-density neighborhoods in Shanghai or other cities.

Linkage strategy

The linkage strategy is helpful to relate neighborhood regeneration with the top down city development. Sometimes, the opportunity is not directly profit the local scale. a deal or exchange (linking part such as open the ghetto) can make it work for the local development. In case of Shanghai Cannes he external potential is the surrounding infrastructure upgrading, in other cases, it can be any kind of city projects.

A new paradigm of migrant settlements

Collective renting regulation strategy used in Shanghai Cannes provides a new paradigm of migrant settlements in Shanghai and other large cities which have the similar situation in China. It can be a transitional strategy to reduce the pressure of limited supply of public rental housing in Shanghai. When public rental housing system become robust, this collective renting is flexible to downsize and change its role to an extra option as private rental.

Bottom-up intervention

Intervention projects, like 'act in public', encompass a range of different aspects, the first of which is exploring new places, discovering forgotten sites and bringing life back to them. A story or an action can instil new value into long forgotten elements, opening people's eyes to previously ignored places. Slumbering appreciation can be reawakened like a charm, so that even a road interchange becomes a thing of beauty.

Bibliography

2010. Graduation Studio: In the Ghetto Studio Guide. Design As Politics, The Department of Urbanism, TU Delft.

AIELLO, J. R. & THOMPSON, D. E. 1980. Personal Space, Crowding, and Spatial Behavior in a Cultural Context. In: ALTMAN, I., RAPOPORT, A. & WOHLWILL, J. F. (eds.) Human Behavior and Environment - Advances in Theory and Research. New York: Plenum Press.

ALTMAN, I. 1975. The environment and social behavior: Privacy, personal space, territory, crowding, Nonterey, California, Brooks/Core Publishing Company.

ALTMAN, I., TAYLOR, D. & WHEELER, L. 1971. Ecological aspects of group behavior in social isolation. Journal of Applied Social Psychology, 1, 76-100.

ALTMAN, I. & WANDERSMAN, A. (eds.) 1987. Neighborhood and community environments: Springer.

ATHANASIOU, R. & A.YOSHIOKA, G. 1973. The spatial character of frendship formation Environment and Behavior, 5, 43-65.

BOVARD-TAYLOR, A. & DRAGANOSKY, J. E. 1979. Using personal space to develop a working alliance in dance therapy. American !ournal of Dance Therapy, 3.

BRAIN, D. 2005. From good neighbrohoods to sustainable cities: Social science and the social agenda of the New Urbanism. International Regional Science Review, 28, 217-238.

BROWER, S. N. 1980. Territory in urban settings. Human behavior and environment: Advances in theory and research: Volume 4: Environment and culture New York and London: Plenum Press.

CALHOUN, J. B. 1973. Death squared: The explosive growth and demise of a mouse population. Proc. roy. Soc. Med, 66 80-88.

CHEYNE, J. A. & EFRAN, M. G. 1972. The effect of spatial and interpersonal variables on the invasion of group controlled territories. Sociometry, 35, 477-489.

CNU (ed.) 1999. Charter of the New Urbanism: McGraw-Hill Professional.

DORST, M. J. V. 2010. Sustainable liveability: Privacy zoning as a physical condition for social sustainability. In: ABDEL-HADI, A., TOLBA, M. K. & SOLIMAN, S. (eds.) Environment, health, and sustainable development. Cambridge: Hogrefe Publishing.

FAN, J. & TAUBMANN, W. 2002. Migrant enclaves in Chinese large cities. In: LOGAN, J. R. (ed.) The New Chinese City: Globalization and Market Reform. Oxford: Blackwell.

FENG, C. 2006. Migrant workers in Shanghai to have benefits of registered residents [Online]. Available: http://english.gov.cn/2006-11/17/content_445747.htm [Accessed 18 Dec 2010].

FLEMING, R., BAUM, A. & SINGER, J. E. 1985. Social support and the physical environment. In: COHEN, S. & SYME, S. L. (eds.) Social Support and Health. Orlando: FL: Academic Press.

GEHL, J. 1968. Life between buildings: Using public space, Copenhagen, Danish Architectural Press.

GOTTDIENER, M. S. 1983. The strength of weak ties: A network theoty revisited Social Theory, 1, 201-233.

GREENBIE, B. B. 1976. Design for Diversity - Planning for Natural Man in the Neo-Techic Environment: An Ethological Approach, Amsterdam, Elsevier Scientific Publishing Company.

GUTMAN, R. 1966. Site planning and social behavior. The Journal of Social Issues, 22, 103-115.

HALL, E. T. 1966. The hidden dimension, New York, Doubleday.

HALL, P. G. 2002. Urban and regional planning, London, Routledge.

HAMMOND, P. H. 2006. Community eclipse and Shanghai's Linong. University of Missouri.

JACOBS, J. 1961. The Death and Life of Great American Cities, New York, Random House.

JULIUS, F. 1970. Body language, New York, Evans.

KATZ, P. 1990. The New Urbanism: Toward an architecture of community, Mcgraw-Hill Education.

KRUSE, K. M. & SUGRUE, T. J. 2006. The new suburan history, Chicago and London, The University of Chicaga Press.

LANGDON, P. 1994. A better plance to ive: Reshaping the Amercian suburb, Amherst, University of Massachusetts Press.

LI, Z. & WU, F. 2008. Tenure-based residentail segregation in post-reform Chinese cities: A case study of Shanghai. Transactions of the Institure of British Geographers, 33, 404-419.

MCMILLAN, D. W. & CHAVIS, D. M. 1986. Sense of commnunity: a definition and theory. Journal of Community Psychology, 14, 6-23.

MEHRABIAN, A. & DIAMOND, S. G. 1971. Effects of furniture arrangement, props, and personality on social interactions. Journal of Personality and Social Psychology, 20, 18-30.

MICHELSON, W. H. 1970. Man and his urban environment: A social approach, Mass, Addison-Wesley.

OUDENAMPSEN, M. 2010. Aldo van Eyck and the city as playground. In: ANDES, A. M. D. (ed.) Urbanaccion 07/09. La Casa Encendida.

POW, C.-P. & KONG, L. 2007. Marketing the Chinese Dream Home: Gated Communities and Representations of the Good Life in (Post-)Socialist Shanghai. Urban Geography, 28, 129-159.

SAARINEN, T. F. 1976. Environmental planning: perception and behavior, Boston, Houghton Mifflin Company.

SOMMER, R. 1969. Personal space: The behavioral basis of design, Englewood Cliffs, NJ, Prentice-Hall.

STATISTICS, S. B. O. 2010. Number of households, population, population density and household population life expectancy(1978-2009). Shanghai Statistical Yearbook 2010. Shanghai: China Statistics Press.

STOREY, D. 2001. Territory, the claiming of space, Harlow, Personal Education Limited.

SUPAB. 2006. "1966" Urban Planning of Shanghai Municipality [Online]. Available: http://www.shgtj.gov.cn/xxbs/lssj/200512/t20051222_272483.htm [Accessed 9 Jan 2011].

TALEN, E. 1999. Sense of community and neighbourhood form: An Assessment of the social doctrine of New Urbanism. Urban Studies, 36, 1361-1379.

TALEN, E. 2006. Design that enables diversity: The complications of a planning ideal. Journal of Planning Literature, 20, 233.

WALCOTT, S. M. & PANNELL, C. W. 2006. Metropolitan spatial dynamics: Shanghai. Habitat International, 30, 199-211.

WILLIAMS, J. 2005. Design neighborhoods for social interaction: The case of cohousing. Journal of Urban Design, 10, 195-227.

WU, F. 2004. Intraurban residential relocation in Shanghai: modes and stratification. Environment and Planning A, 36, 7-25.

WU, F. 2010. Gated and packaged suburbia: Packaging and branding Chinese suburban residential

development. Cities, 27, 385-396.

WU, F. & LI, Z. 2005. Sociospatial differentiaiton: Processed and spaces in subdistiects of Shanghai. Urban Geography, 26, 137-166.

WU, W. 2002. Temporary migrants in Shanghai: Housing and settlements patterns. In: LOGAN, J. R. (ed.) The New Chinese City: Globalization and Market Reform. Oxford: Blackwell.

WU, W. 2005. Migrant residential distribution and metropolitan spatial development in Shanghai. In: MA, L. J. C. & WU, F. (eds.) Restructuring the Chinese city: changing society, economy and space. New York: Routledge.

ZHOU, Y. & LOGAN, J. R. 2008. Growth on the Edge: The New Chinese Metropolis, Blackwell Publishing Ltd.