



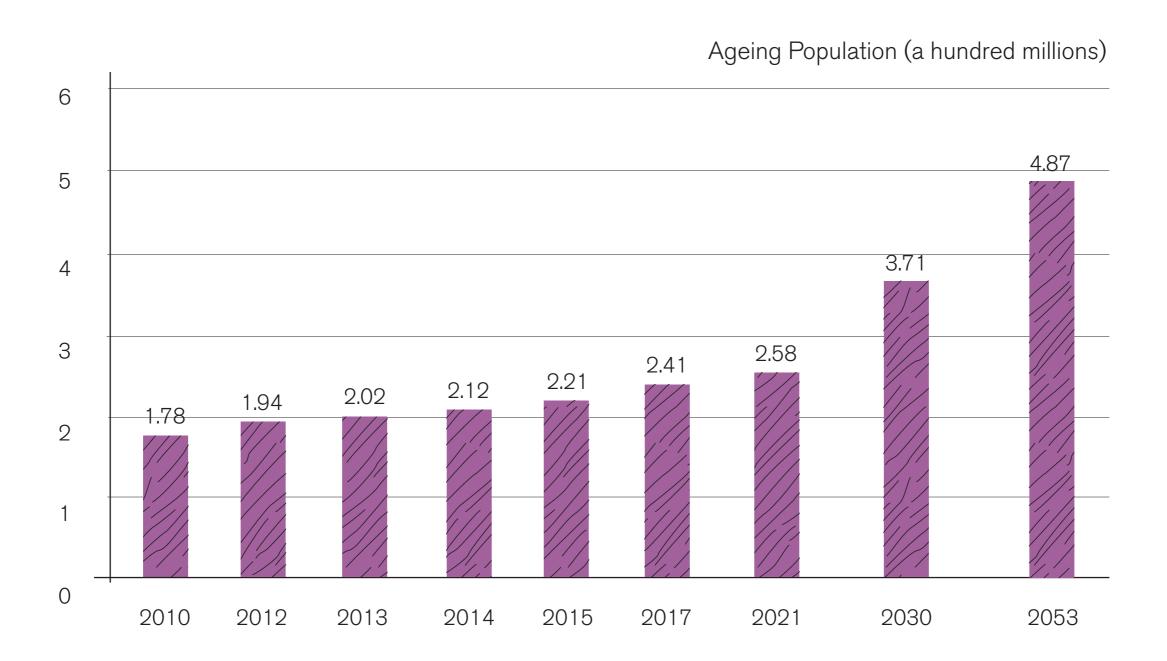


Towards a Livable City for Elderlies

Designing new urban strategies to integrate neighborhood-based services systems with historical area fabric in Changsha, China.

Context: Ageing in China

-Context



Problem field: Residential-dominated historic area

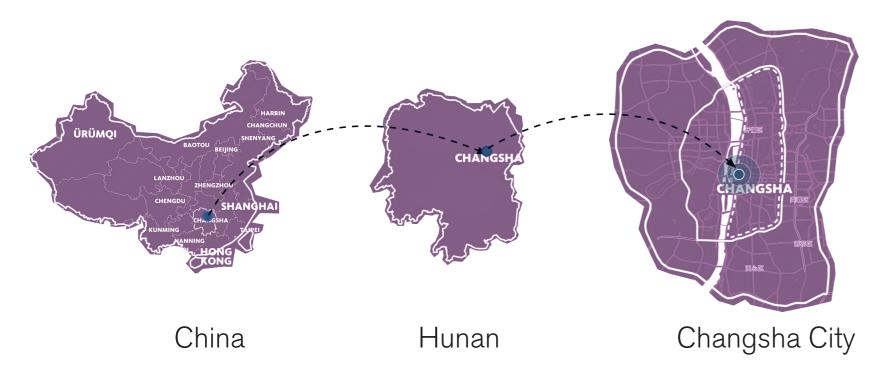
- -Context
- -Problem field



Residential-dominated

These old neighborhoods keep more elderlies living inside because of the low living cost. At the same time, environment quality is relatively poor.

Problem field: Tier one city----Changsha







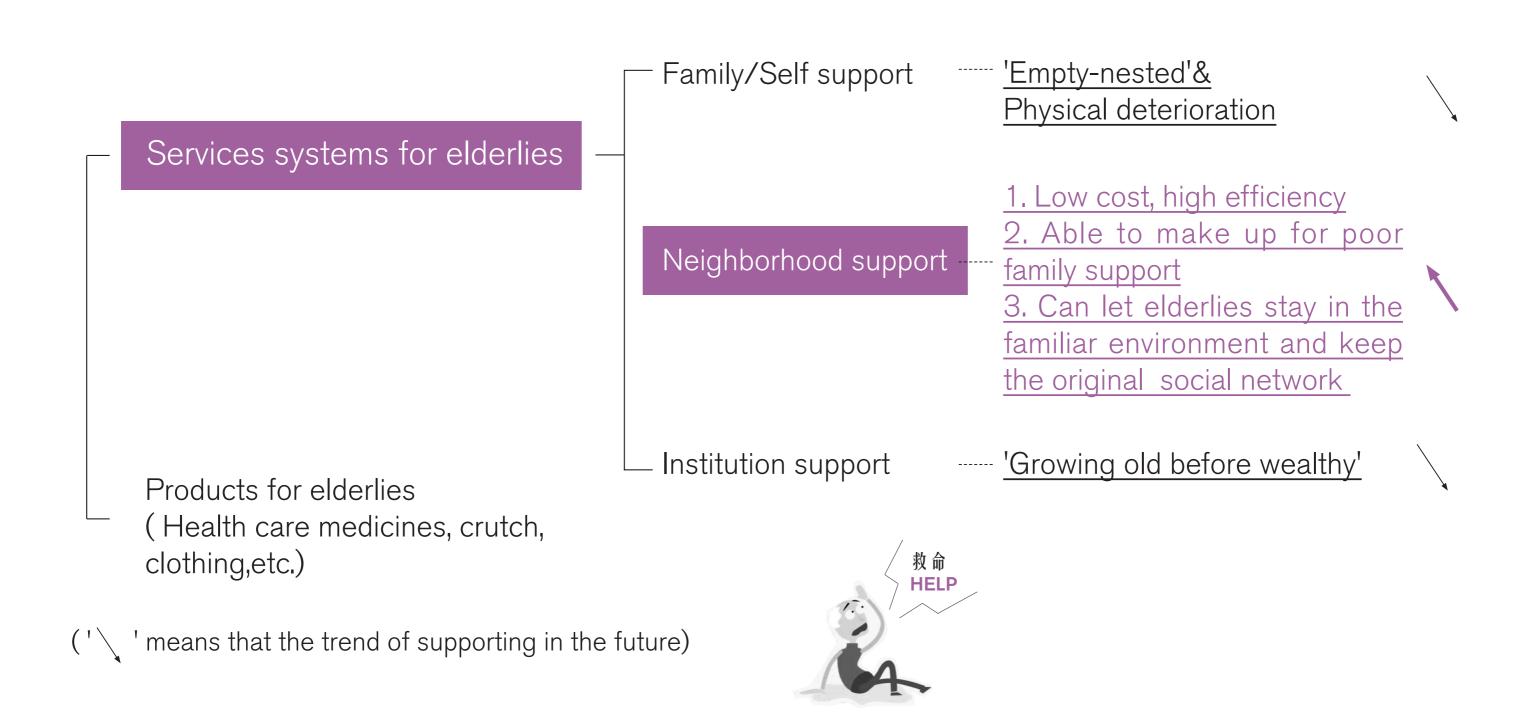






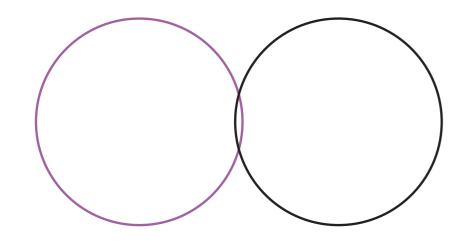
- -Contradictions
- -Strong economic pillar and preferential supporting policies

Problem field: Chinese neighborhood services systems for elderlies



Problem statement

- -Context
- -Problem field
- -Problem statement

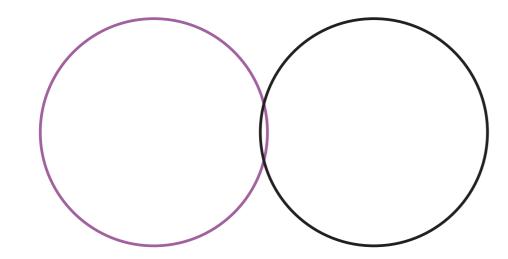


Neighborhood services systems for elderlies Urban design& Urban planning

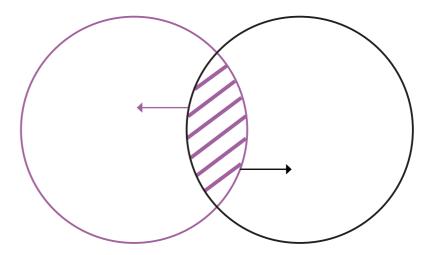
The existing planning and design in the historic blocks has few response to the neighborhood services systems for elderlies. In other words, neighborhood services systems for elderlies and urban design & planning systems do not integrate each other in the historic area.

Aim

- -Context
- -Problem field
- -Problem statement
- -Aim



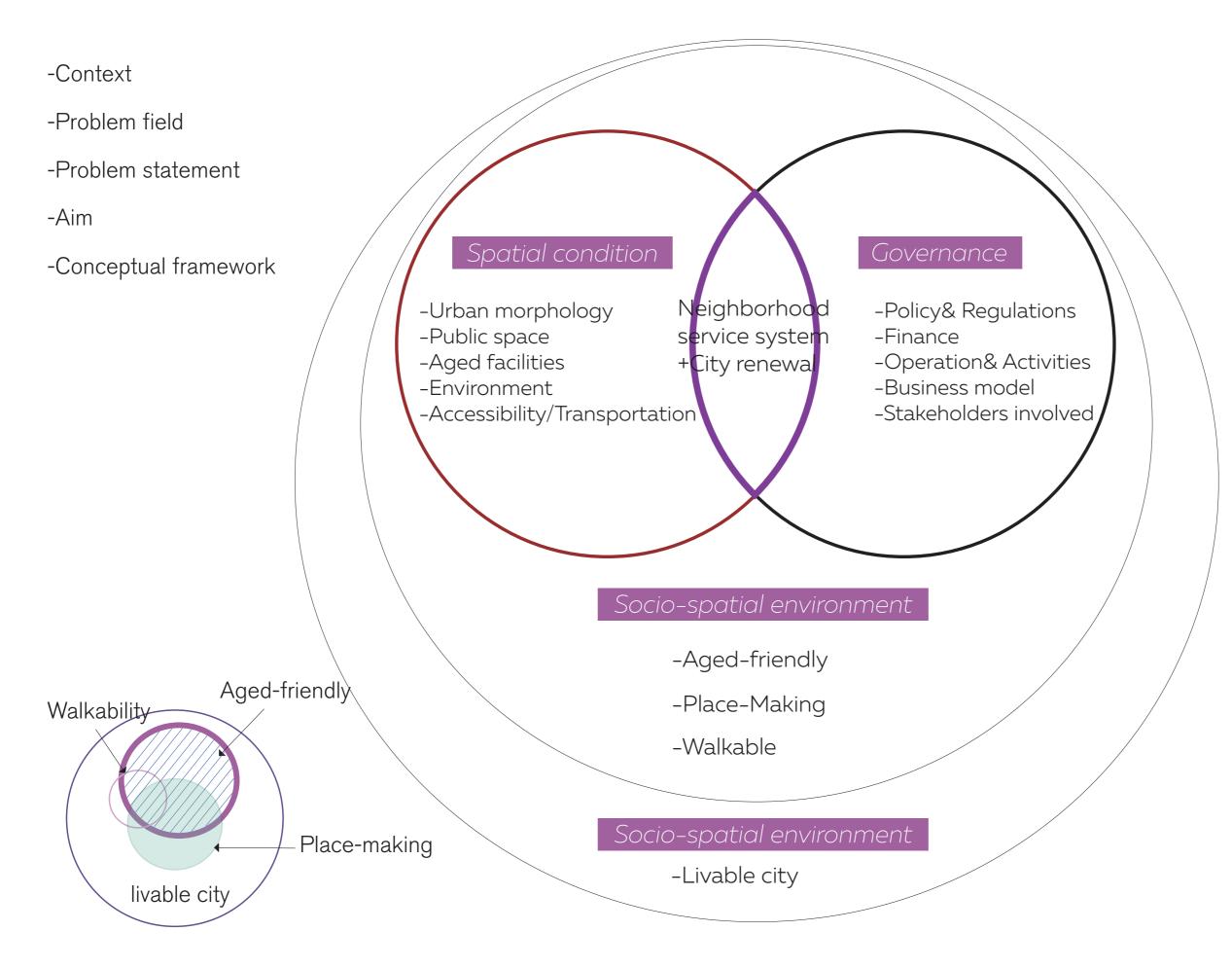
Neighborhood services systems for elderlies Urban design& Urban planning



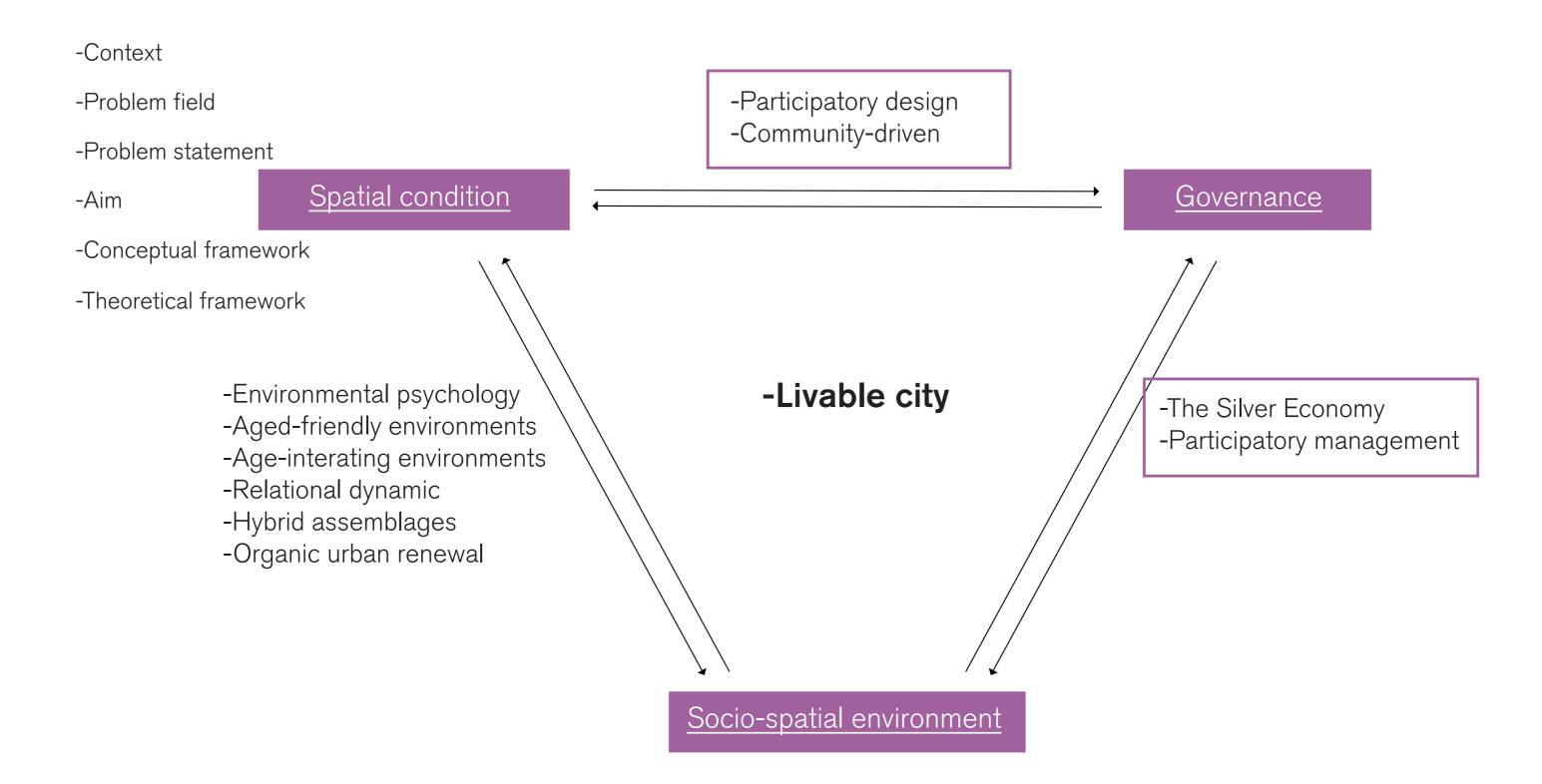
Neighborhood services systems for the elderlies

Urban design& Urban planning

Conceptual framework

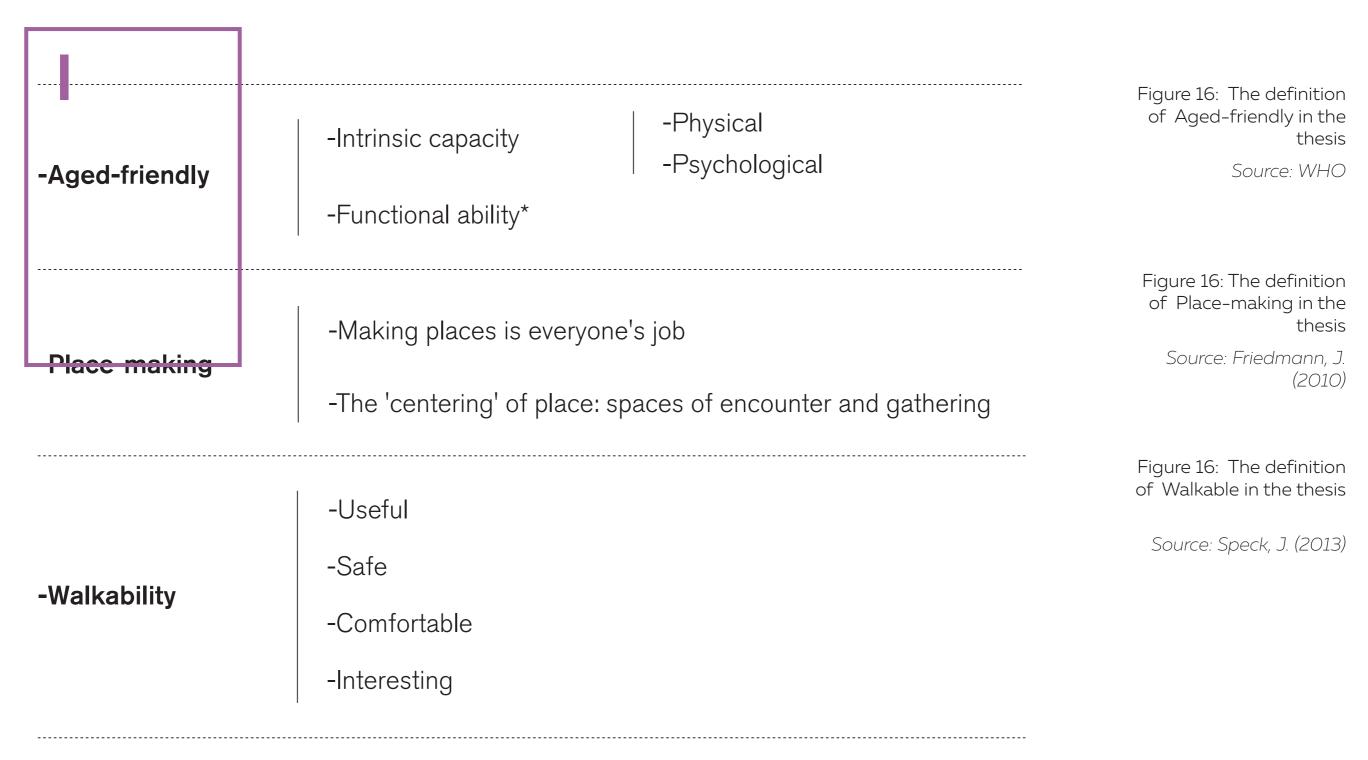


Theoretical framework



-Aged-friendly	-Intrinsic capacity -Functional ability*	-Physical -Psychological	Figure 16: The definition of Aged-friendly in the thesis Source: WHO
-Place-making	-Making places is everyone's job -The 'centering' of place: spaces of encounter and gathering		Figure 16: The definition of Place-making in the thesis Source: Friedmann, J. (2010)
-Walkability	-Useful -Safe -Comfortable -Interesting		Figure 16: The definition of Walkable in the thesis Source: Speck, J. (2013)

Functional ability* is the process of interacting the intrinsic ability of the elderly and the environment to achieve individual value. (WHO)

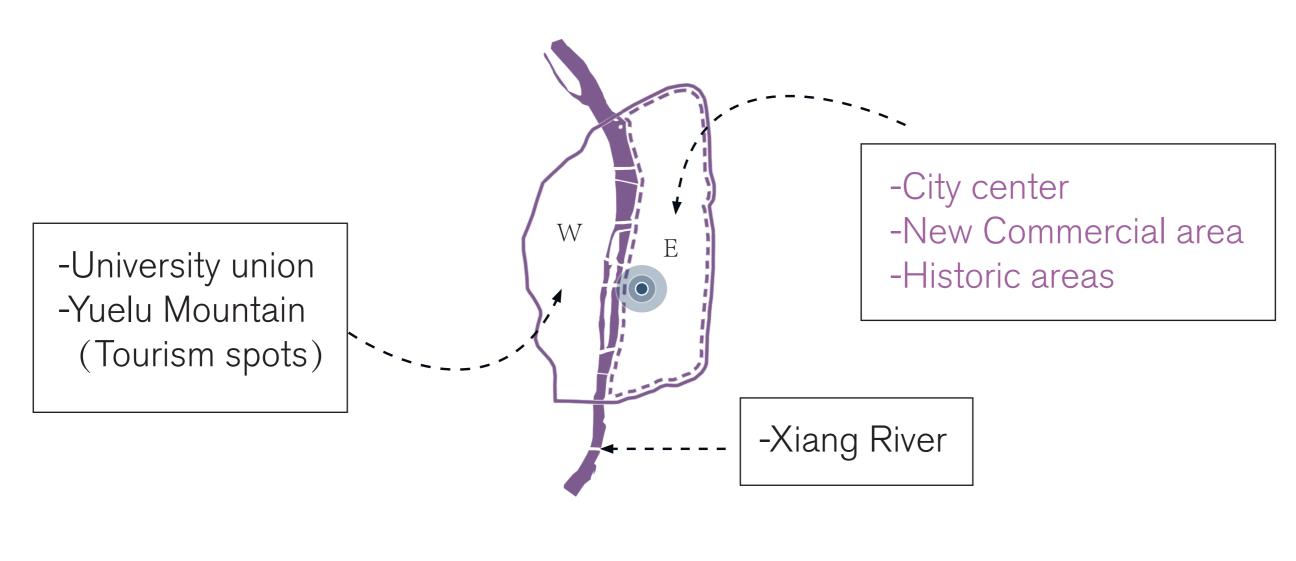


Functional ability* is the process of interacting the intrinsic ability of the elderly and the environment to achieve individual value. (WHO)

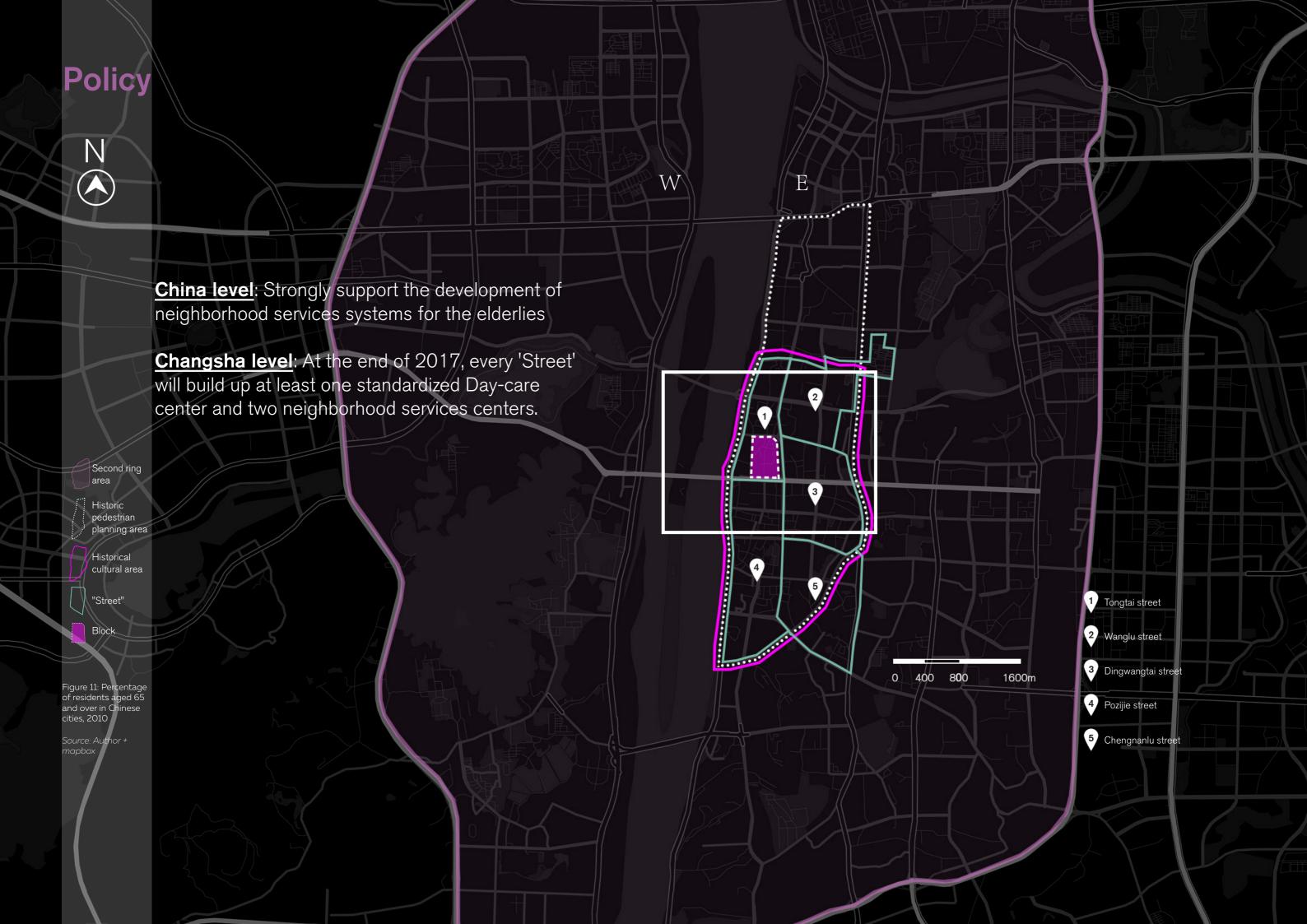
I Context of aged-friendly&place-making

- -Context
- -Problem field
- -Problem statement
- -Aim
- -Conceptual framework
- -Theoretical framework
- -I Context of agedfriendly&place-making





Changsha

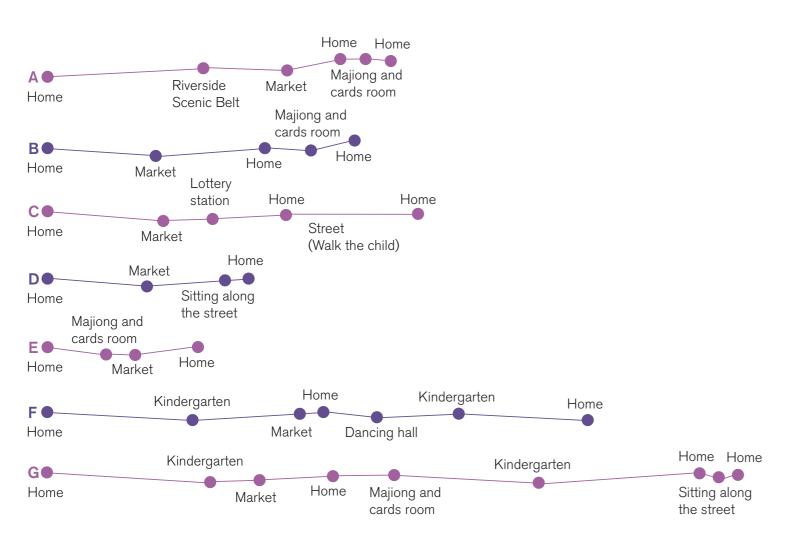


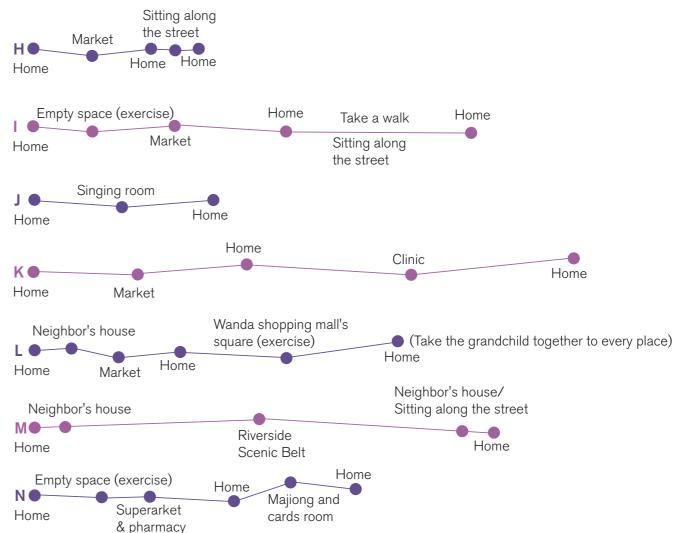
∱x6 Distribution and usage of the facilities Hehuachi Neighborhood Services Center for the Elderlies **∱** x0 **1** x0 **1 x** 0 ices Center for the Elderlies Beizhengjie Neighborhood Services Zhongshanlu Neighborhood Services Station for the Elderlies Station for the Elderlies Lianshengjie Neighborhood Services Station for the Elderlies The third floor Zhongshanting Neighborhood Services Center for the Elderlies 丰泉古井社区公共服务中心^*.x4 Xuanyuandian Neighborhood Servi Center for the Elderlies Center for the Elderlies Image 19-24: Photos of Neighborhood services centers (or stations) for **∱**x0● the elderlies Figure 11: Distribution Yandaopin Neighborhood Serand actual usage of the vices Station for the Elderlies Neighborhood services centers (or stations) for the elderlies Actual usage data source: Author (2016) Name list of neighborhood services for the elderliesin Kaifu District (2013). Neighborhood services centers Neighborhood **∱** x0 Center for the Elderlies Fengquangujing Neighborhood Ser-Furongqu Neighborhood Services Center for the Elderlies vices Station for the Elderlies

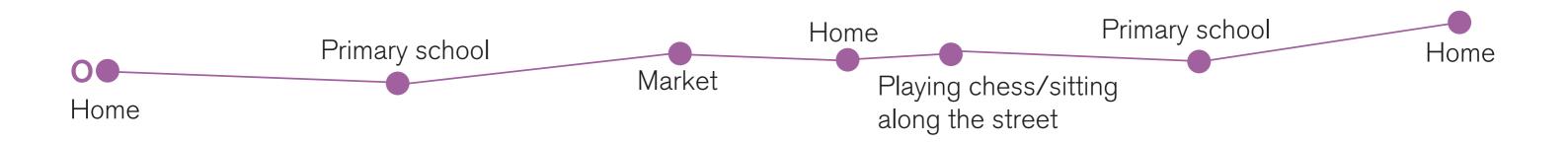


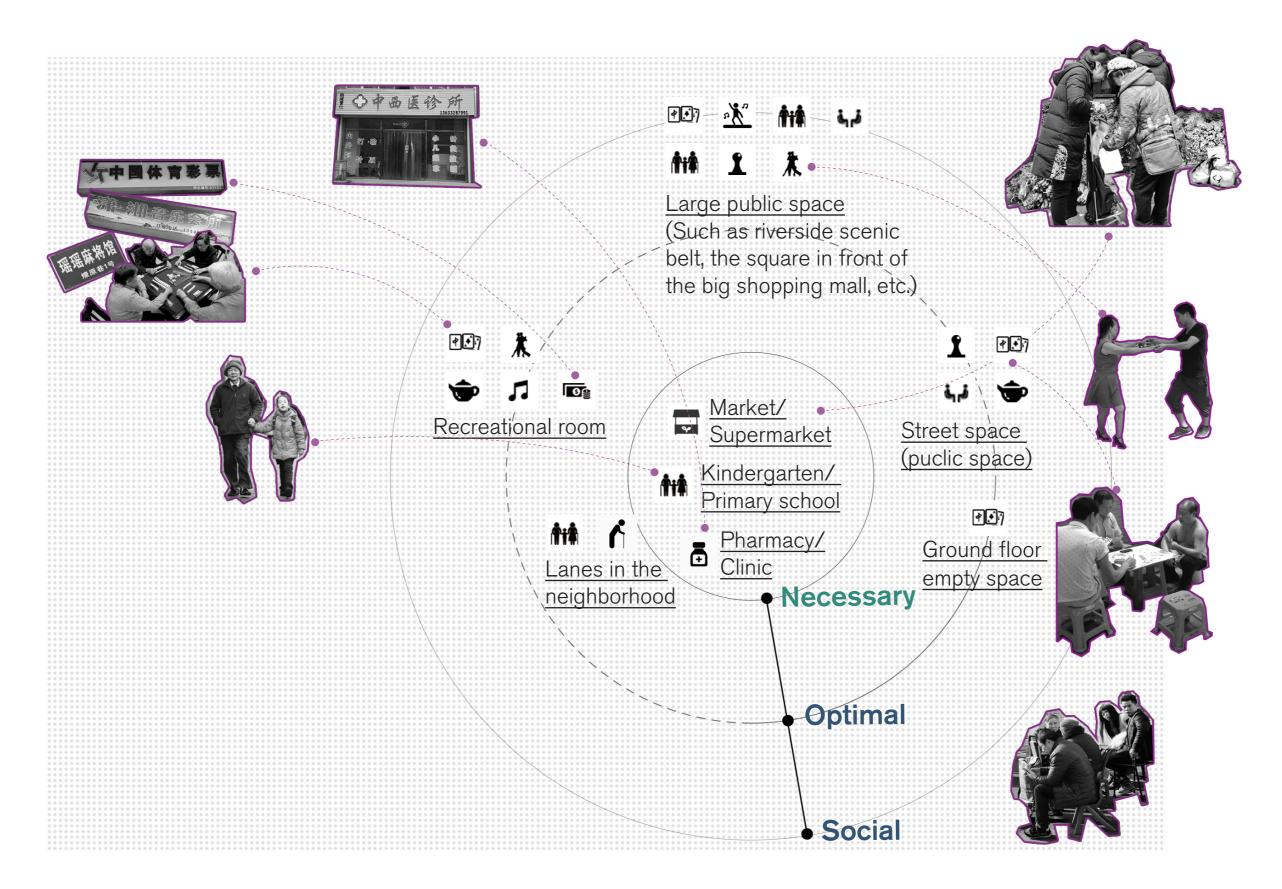
- -Where do the elderlies usually gather?
- -What are their activities in these places?
- -Why do the elderlies not prefer the services center?

Daily routes of 15 interviewed elderlies





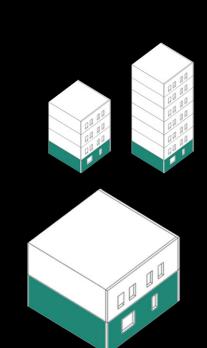




To further classify the activities and space that the elderly used, the concepts that Gehl, J. (2011) put forward of <u>necessary</u>, <u>optimal and social activities</u> are been used as the criteria for division in the thesis.



The local elderlies' patterns



-INDOOR
-Ground floor space
-Paid
-All weather all temperature



Playing mahjong &Cards



末

Dancing



Source: image.baidu



Buying lottery



Drinking tea



*

Buying food



5

Singing



Walking the child



9

Drinking tea



Playing mahjong &Cards



Chatting

قهة

-OUTDOOR -Street Space (Public space)

-Always with rounded edge -Free

-Sunny days and suitable temperature



1

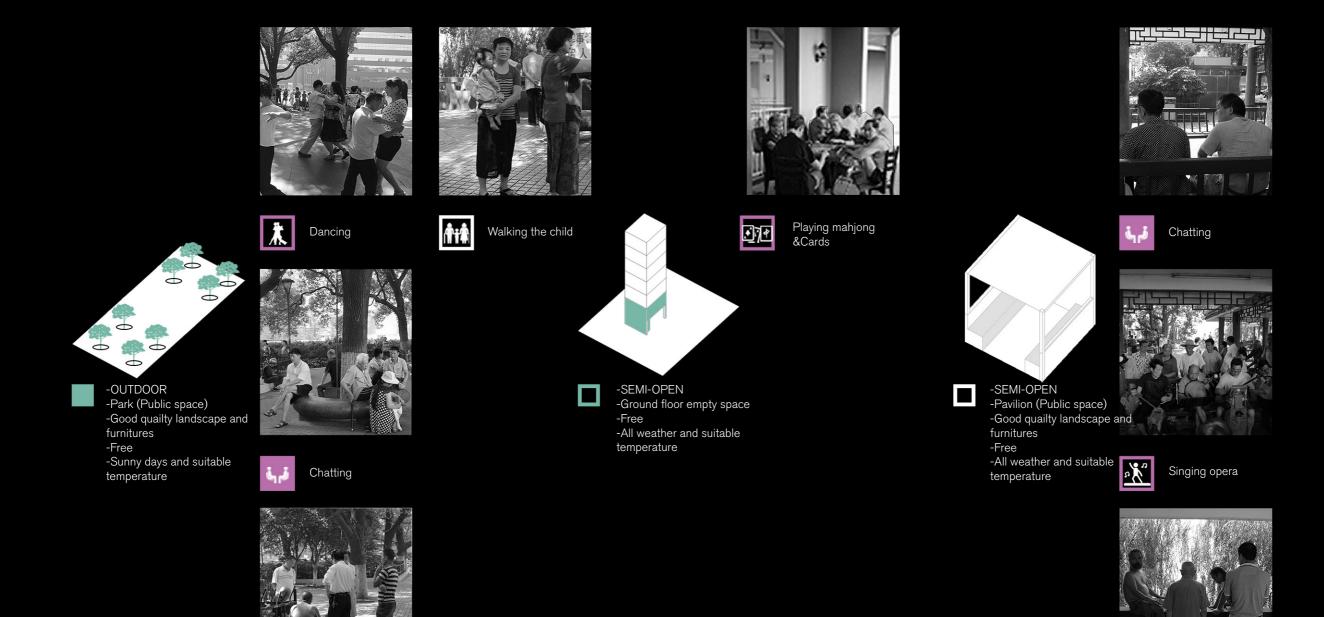
Playing chess

Figure 11: Percentage of residents aged 65 and over in Chinese cities, 2010

Source: Author

The local elderlies' patterns

Playing chess &mahjong &Cards

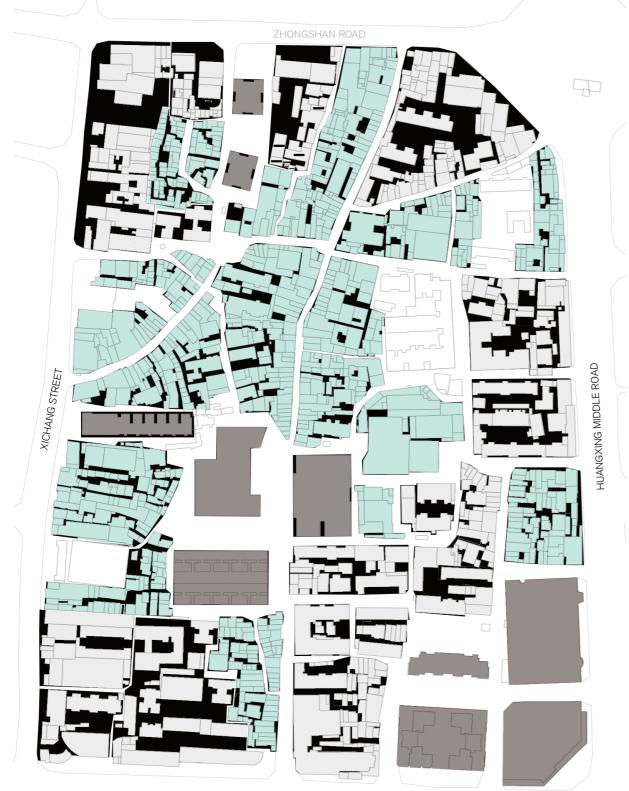


Playing chess &mahjong &Cards

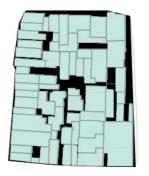
Figure 11: Percentage of residents aged 65 and over in Chinese cities, 2010

Source: Author





WIIYI AVENIJE





-Linear

-Buildings are tightly arranged to give almost no public space. Residents would heavily depend on street space for any activities.





-Loop

-Buildings loop to form pocket space, which allows functional public space that gathers people.





-Tower

-Tower form high-rises that have ground floor level connected to squares or plazas offer more open and effective public spaces with blur boundary.

Comparison

- -Decentralized
- -Varied
- -Unlimited
- -Flexible
- -Social

	Neighborhood services centers (or stations)	The local elderlies' daily patterns	
Facilities distribution			
Walking distance	Elderlies Facilities		
Target groups*	Relatively good health condition elderlies	All groups of eldelries	
Available time	Has the Opening hours(Only in the day-time). Closed on the national holidays.	No-time limited.	
Awareness	Only parts of the elderlies know the facilites.	The elderlies are quite familiar with the facilites surrounded their house and the big public space.	
ocial network			

	Neighborhood services centers (or stations)	The local elderlies' daily patterns	
Direction	Strong purpose	Without strong purpose	
Activities	قربة		
Site	Passive. It depends on where the Community Centers are.	Positive. It decided by the demand.	
	-INDOOR -INDOOR First/second Floor No lift	-INDOOR -OUTDOOR Ground Floor -SEMI-OPEN -SEMI-OPEN	
Space typology		1. Good quality and continuous landscape 2. City furniture, can easily find a place to sit down or play cards/chesses 3. Tall trees provide shade in summer, and most of the furnitures for sitting are under the trees 4. Have both semi-open and outdoor public space 5. It is also a important public space for elderlie meet with other groups of people. 6. Have enough space for all types of activities	
		-Single function -Ground floor -The distribution of the recreational rooms in the block is more random and disperse, so that they can cover more elderlies. Besides, they are all along or surround the commercial streets.	

-Random

-Mutiple

The profile of different age elderlies

	50-65 Years old	65-75 Years old	75-90 Years old
AGE LEVEL	Middle Aged	Younger Seniors	Real Seniors
LIVING PATTERN	Live on themselves	Live on themselves/ live partly on themselves	Live partly on themselves/ cannot live on themselves
WORKING PATTERN	Re-employment /Volunteer	Retirement	Retirement
PHYSICAL CONDITION			
DAILY WALKING DISTANCE	No boundary	Block and its nearby	Community and its nearby
SCOPE OF PLACES	Necessary places: all Optimal+social places: large public space; lanes in the neighborhood	Necessary places: all Optimal+social places: all	Necessary places: market/ supermarket; pharmacy/ clinic Optimal+social places: street space; lanes in the nieghborhood

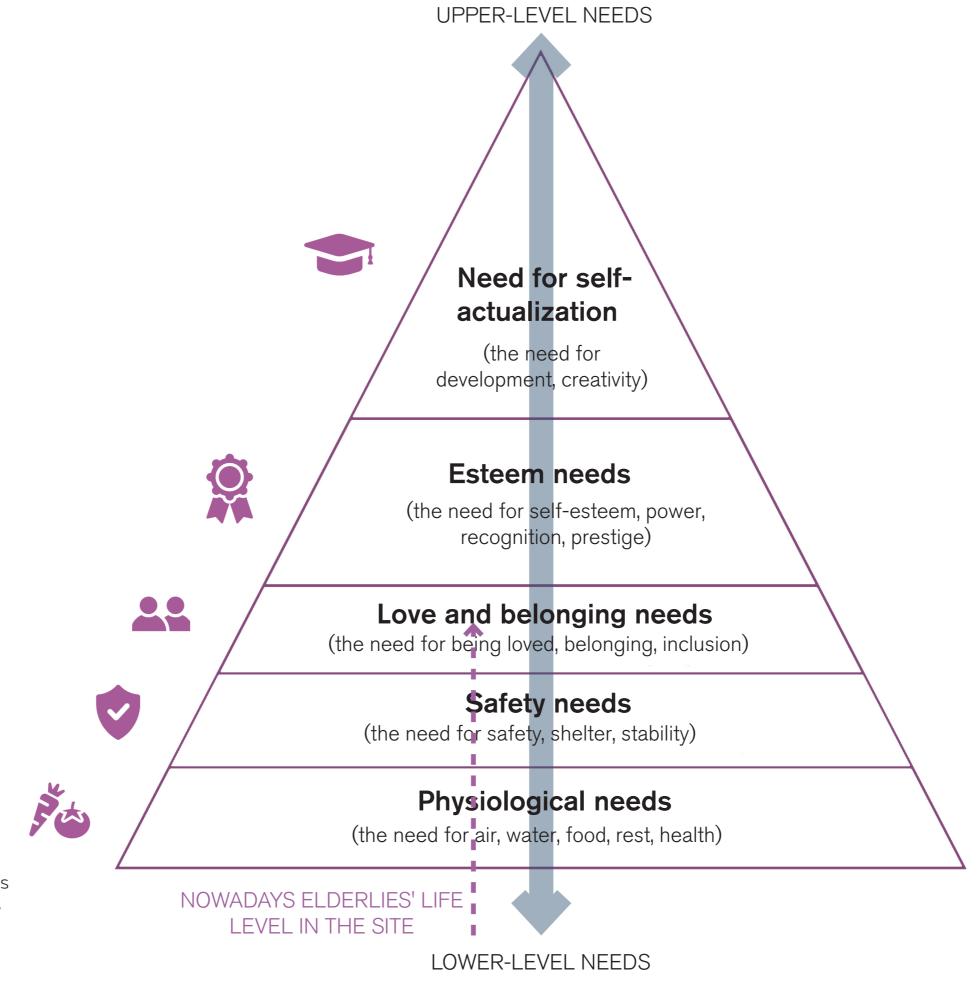


Figure 16: Maslow's hierarchy of needs

Source: Abraham Harold Maslow

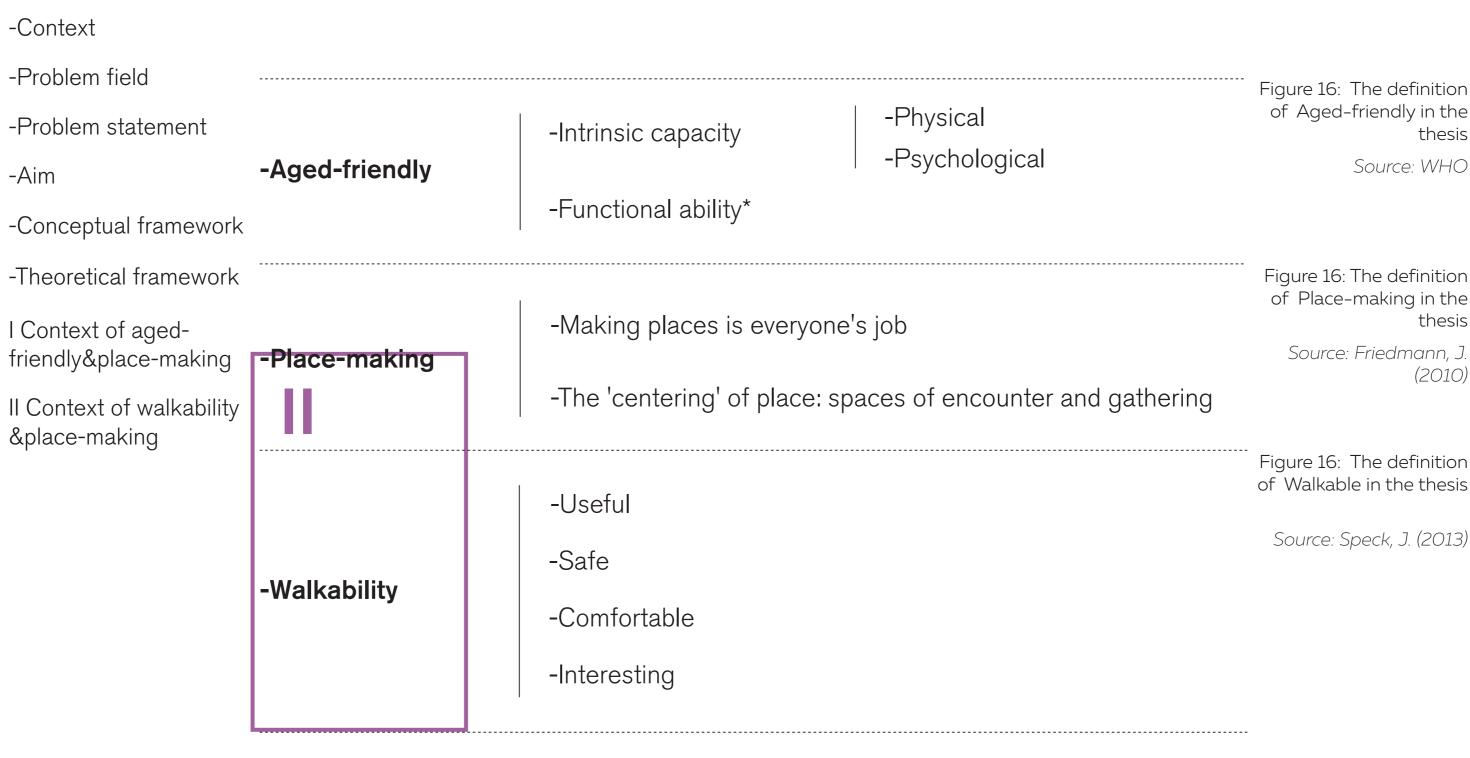
'New elderlies'

-Develop interest groups

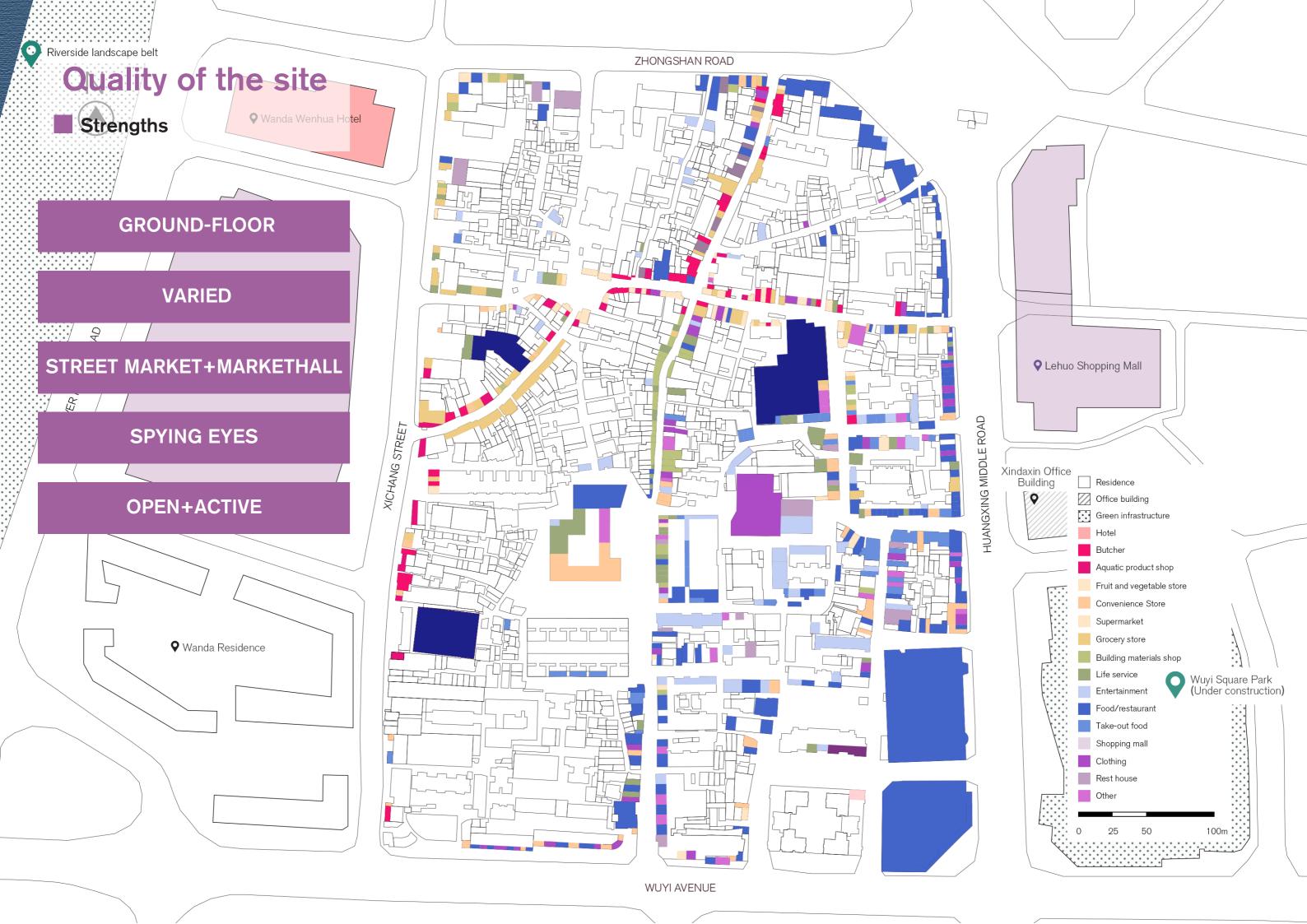
-Space support Big scale public space Middle scale public space Small scale public space Recreational Outdoor Indoor Street space Big green infrastructure Necessary facilities rooms Medical facilities Market&shops Education facilites



Conceptual framework



Functional ability* is the process of interacting the intrinsic ability of the elderly and the environment to achieve individual value. (WHO)





Weaknesses

1. The management of public spaces are unorganized and disordered.









Weaknesses

2. The normal usage of sidewalk is extremely low, which means the function of sidewalks here is not for walking anymore. Sidewalks are occupied by the open market or the stuffs of residents. Most of the ground-floor shops will extend their places of displaying goods on the sidewalks. Besides, the sidewalk itself is narrow, uneven, and discontinuous.









Weaknesses

3. Poor ventilation conditions and aged drainage system in historic blocks, bad smelling and dirty water of butcher and aquatic product shops cause people a bad sensory feeling of the street.





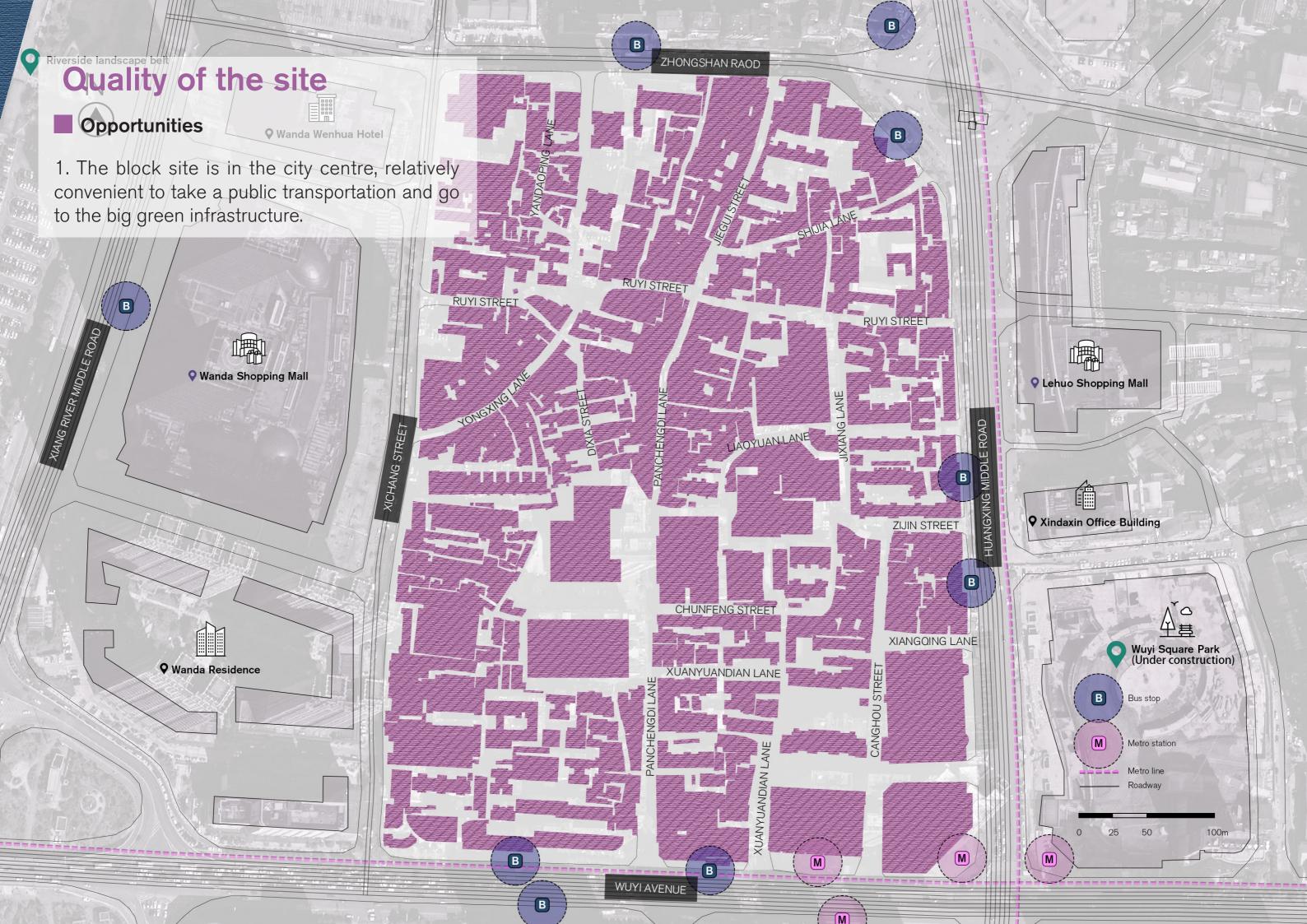




Weaknesses

4. The overall building quality is relatively low.

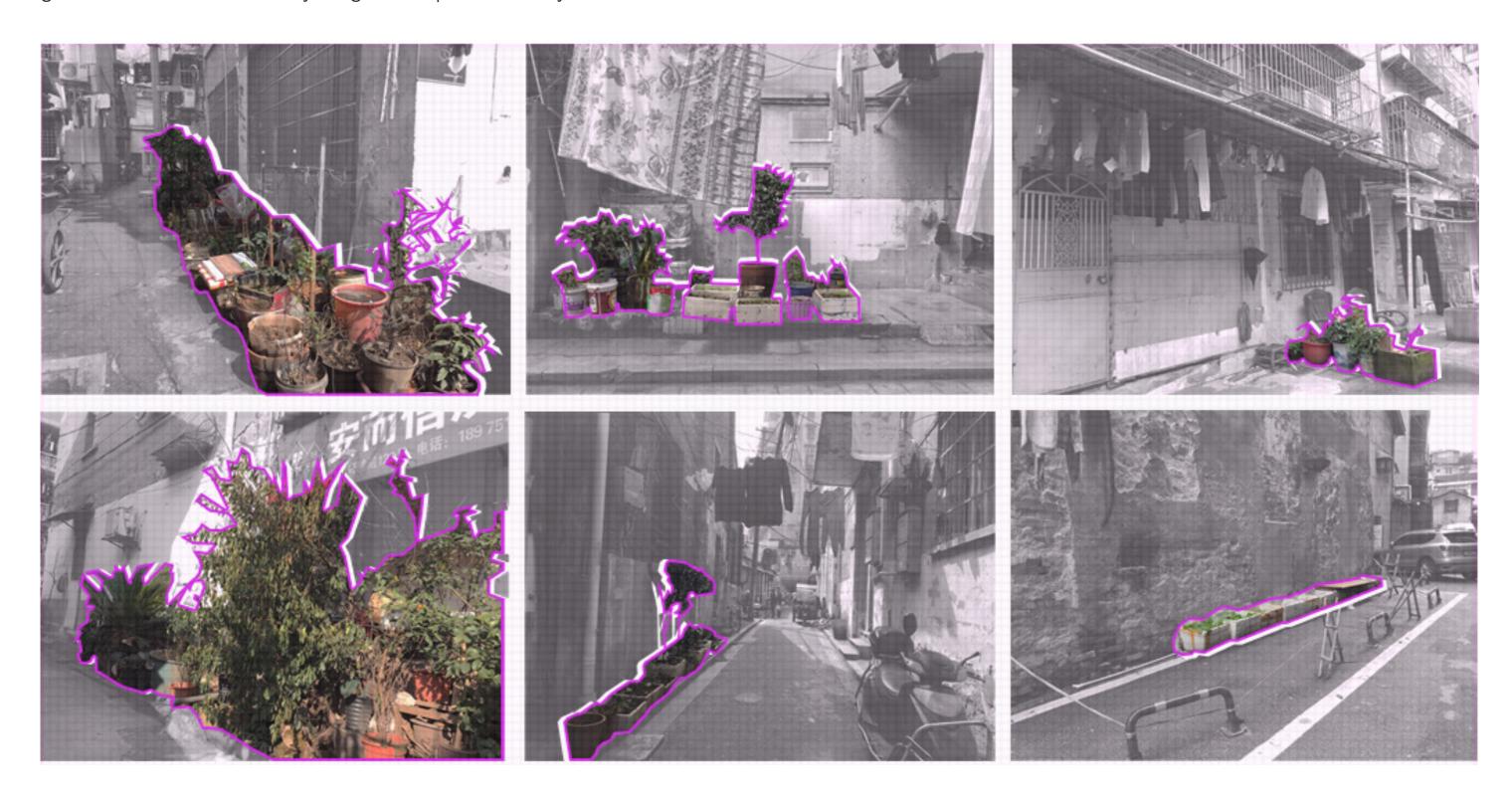




Quality of the site

Opportunities

2. The historic blocks are always lacking of big green infrastructure inside or soft façade because of the limited space. However, there are some green corners that made by neighbors spontaneously.



Quality of the site

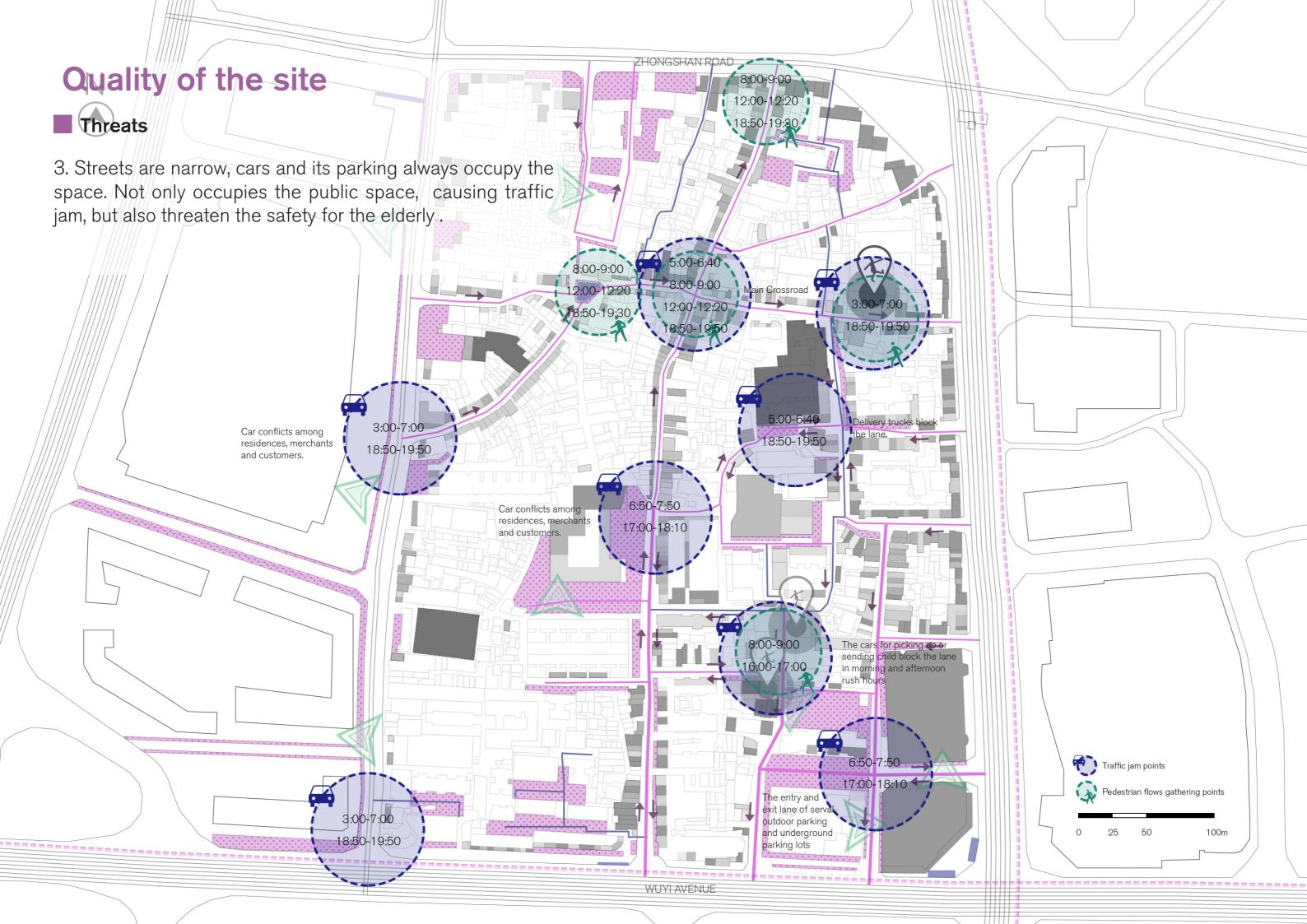
Threats

1. Lack of lighting in the evening.



2. The entrance of different lanes, which we usually called 'corridor', is always dark, dirty and easily falling and getting lost.





Quality of the site

Conclusions

- 1. Pattern of business in the block makes people easily to buy their daily needs.
- 2. The spying eyes brought by ground-floor shops can help to build up the safety atmosphere in the neighbourhood and secondly, the strong social network and relationship in the historic block add up to the aforementioned.
- 3. The faces of Xiping block are quite open and active because the ground-floor shops and markets are along the street. Different shops have their own styles or patterns of selling and goods placing which brings the neighborhood unique characters.

- 1. The management of public spaces are unorganized and disordered. In the block, vehicles bicycles parking, goods placing and clothes hanging can be seen everywhere, along the street, occupying the yards, and occupying the sidewalk.
- 2. The normal usage of sidewalk is extremely low, which means the function of sidewalks here is not for walking anymore. Sidewalks are occupied by the open market or the stuffs of residents. Most of the ground-floor shops will extend their places of displaying goods on the sidewalks. Besides, the sidewalk itself is uneven and discontinuous.
- 3. Poor ventilation conditions and aged drainage system in historic blocks, bad smelling and dirty water of butcher and aquatic product shops cause people a bad sensory feeling of the street.
- 4. The overall building quality is relatively low. Although indeed existing some valuable cultural relic buildings, historic buildings, and traditional style buildings in the neighbourhood, they are not being well protected. Besides, the rest buildings are with low quality façade, bad environment, some are even dangerous buildings.
- 5. Lack of lighting in the evening.

S

W

- 1. It is relatively convenient to take a public transportation and go to the big green infrastructure nearby.
- 2. The historic blocks are always lacking of big green infrastructure inside or soft façade because of the limited space. However, there are some green corners that made by neighbors spontaneously.

T

- 1. The entrance of different lanes, which we usually called 'corridor', is always dark, dirty and easily falling and getting lost.
- 2. Streets are narrow, cars and its parking always occupy the space. Not only occupies the public space and thereby; causing traffic jams, but also threaten the safety of people.

City renewal



LARGE-SCALE DEMOLITION AND RECONSTRUCTION

- 1. destruction of some historical streets, historical buildings and city culture.
- 2. loss on the pattern, texture and lifestyle of historic areas.

'ORGANIC RENEWAL'

- 1. more focuses on the spatial itself, lacking of the thinking on the social aspects and governance aspects,
- 2. put forward by experts, ignoring the opinions of local residents

Changsha's special identity and common scenes.

- -Context
- -Problem field
- -Problem statement
- -Aim
- -Conceptual framework
- -Theoretical framework
- -I Context of agedfriendly&place-making
- -II Context of walkability &place-making
- -Changsha's special identity and common scenes



Special identity

The elderly





The site



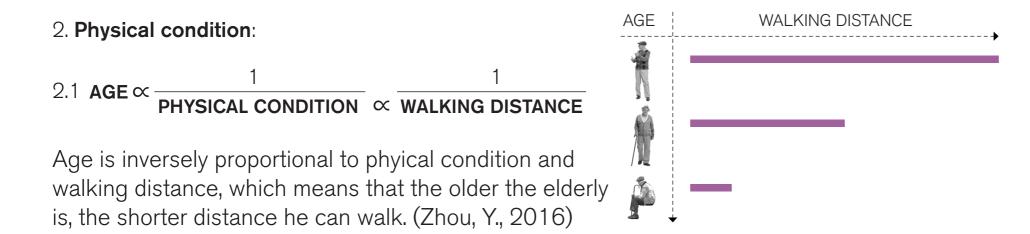




Common scenes

The elderly

1. **Entertainment**: Dancing, Drinking tea, Playing mahjong, Playing chess, Buying lottery, Chatting&Cards, Singing, taking a walk In China, the elderly's daily recreational activities can be mainly divided into two types: one is toning up the body, like dancing and taking a walk; the other is activating brains, like playing chess, playing mahjong, etc.



2.2 The elderly's attention is easily distracted by the sourroundings.

3. Psychological condition:

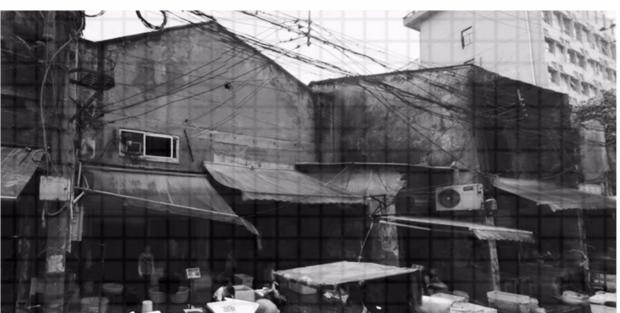
- 3.1 The classification of elderlies' daily activities places based on necessary, optimal and social activities are almost the same. Especially for the necessary places, always includes markets/shops/supermarket (Liao, A., 2019), education facilities (Liao, A., 2019) and medical facilities.
- 3.2 The elderly has diversification and individualization of demand for activity spaces, (Ding, W., 2010) such as indoor places, outdoor places, semi-open places, the places with tables and chairs, etc.
- 3.3 After retirement, the elderly easily feels lonely, always loves to stay in active places. (Yang, J., 2017) Especially those who are empty-nested elderlies, love going to lively places.

The site







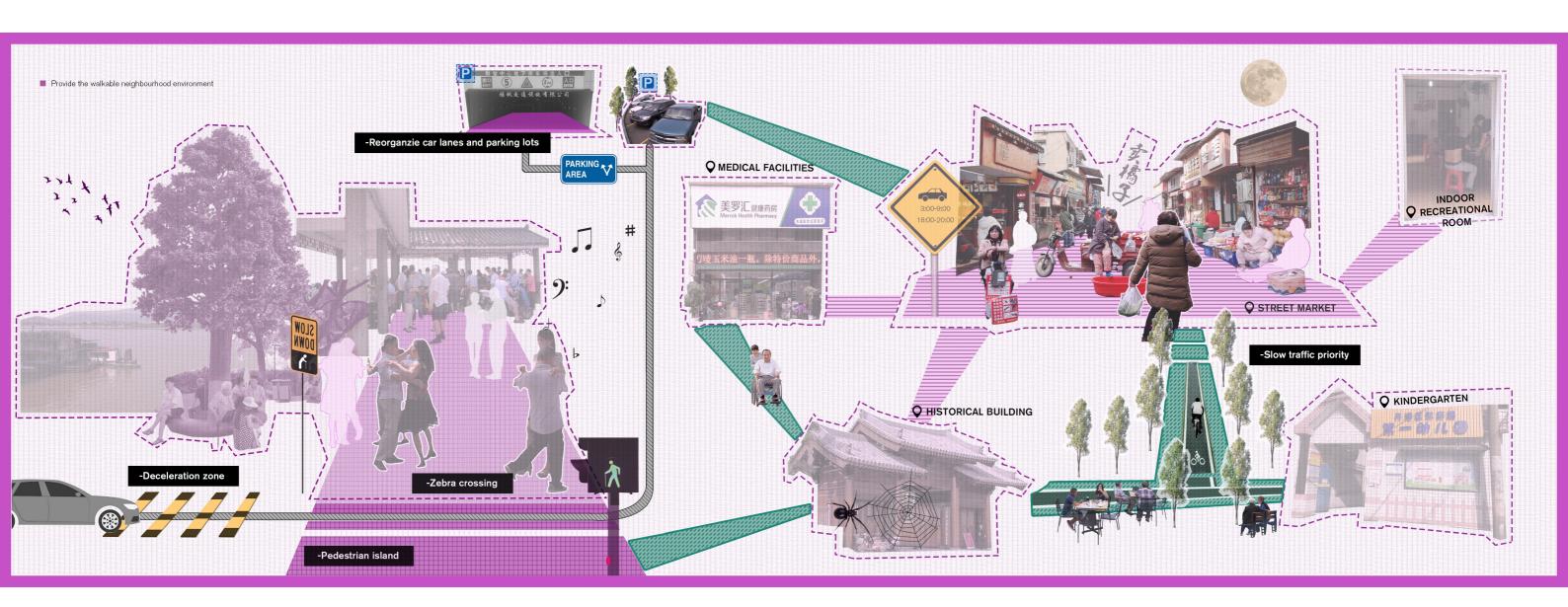


Vision

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- -Vision



Vision-step1



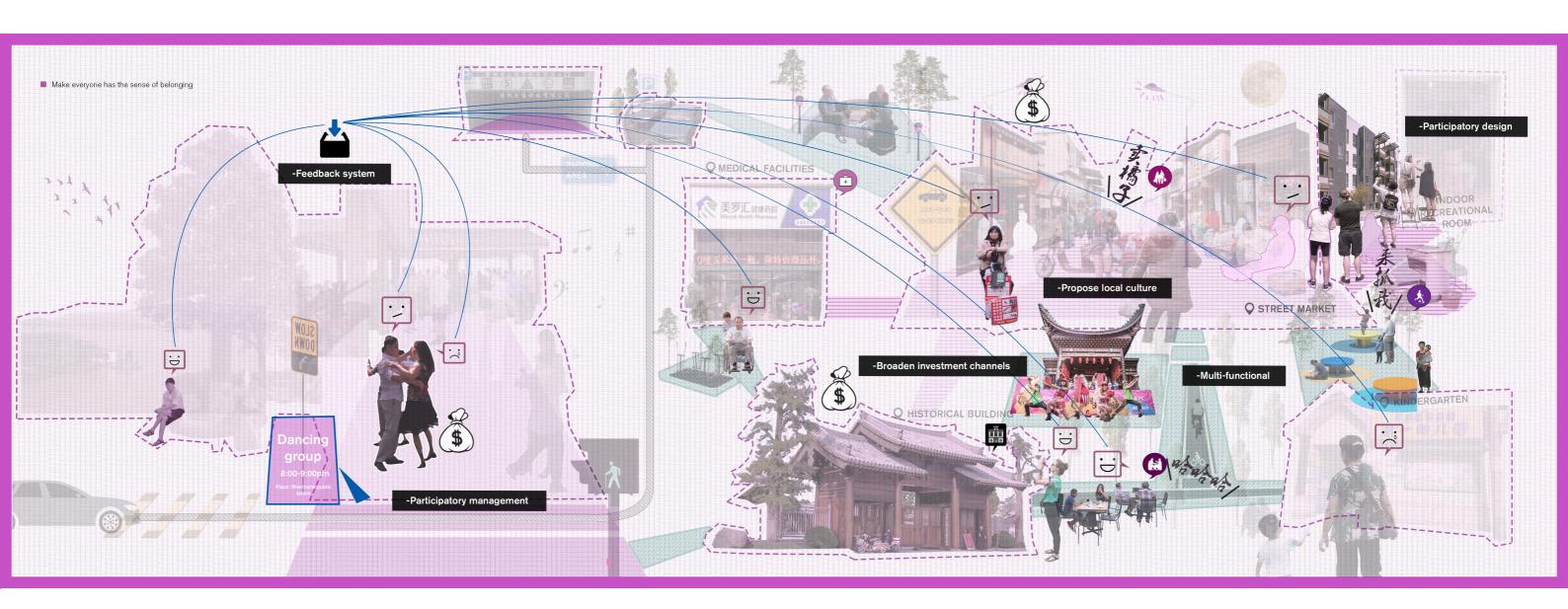
-Provide the walkable neighbourhood environment

Vision-step2



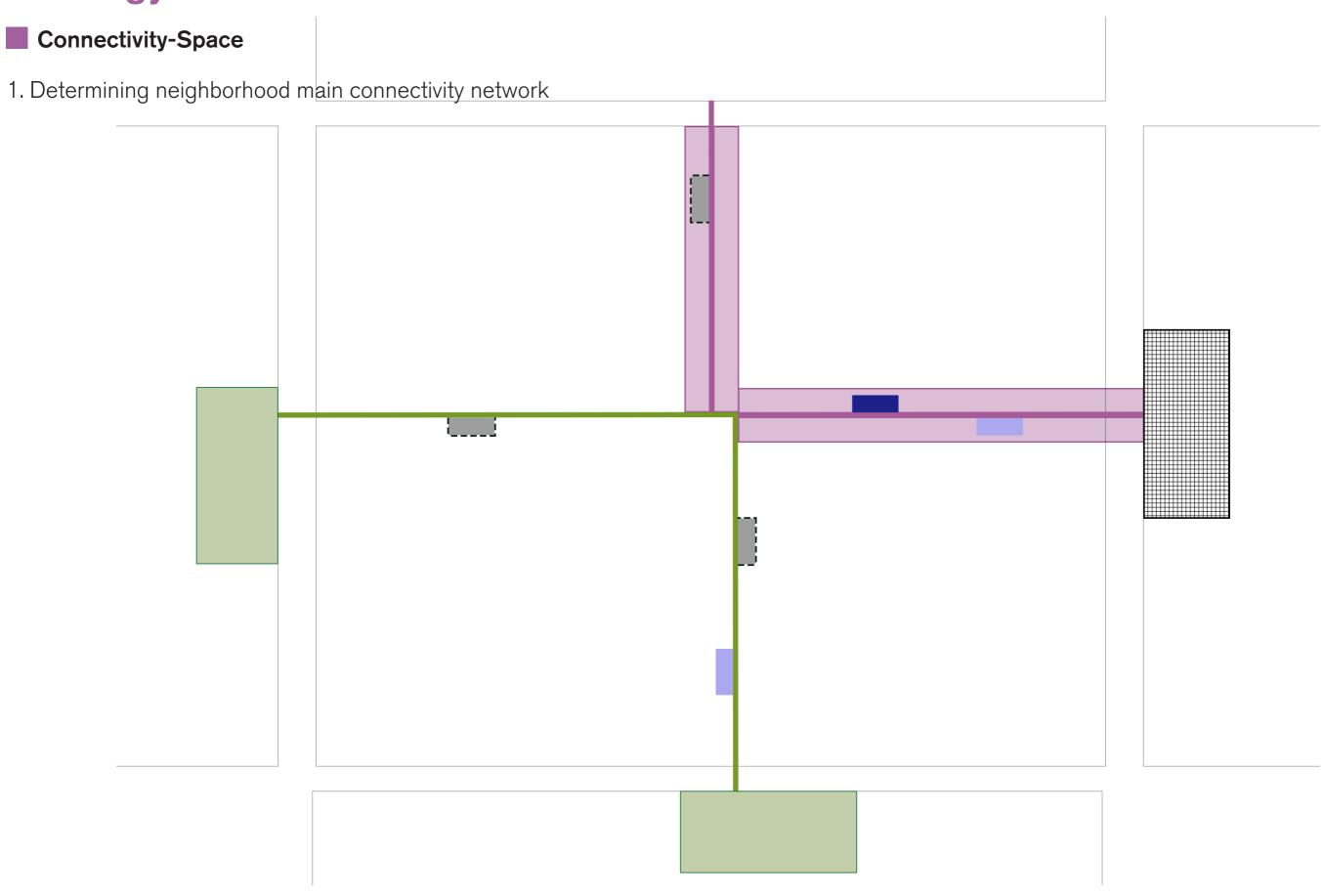
-Build up different-level public spaces network system

Vision-step3



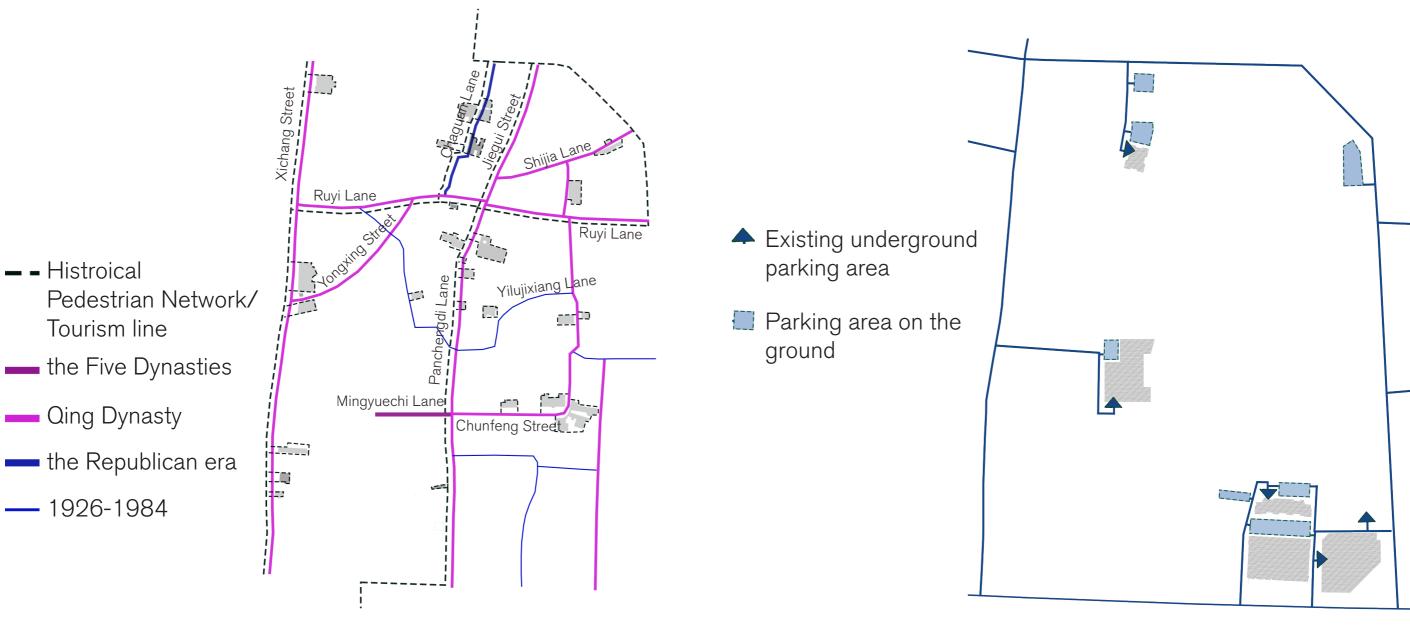
-Make everyone has the sense of belonging

Strategy



Connectivity-Space

1. Determining neighborhood main connectivity network

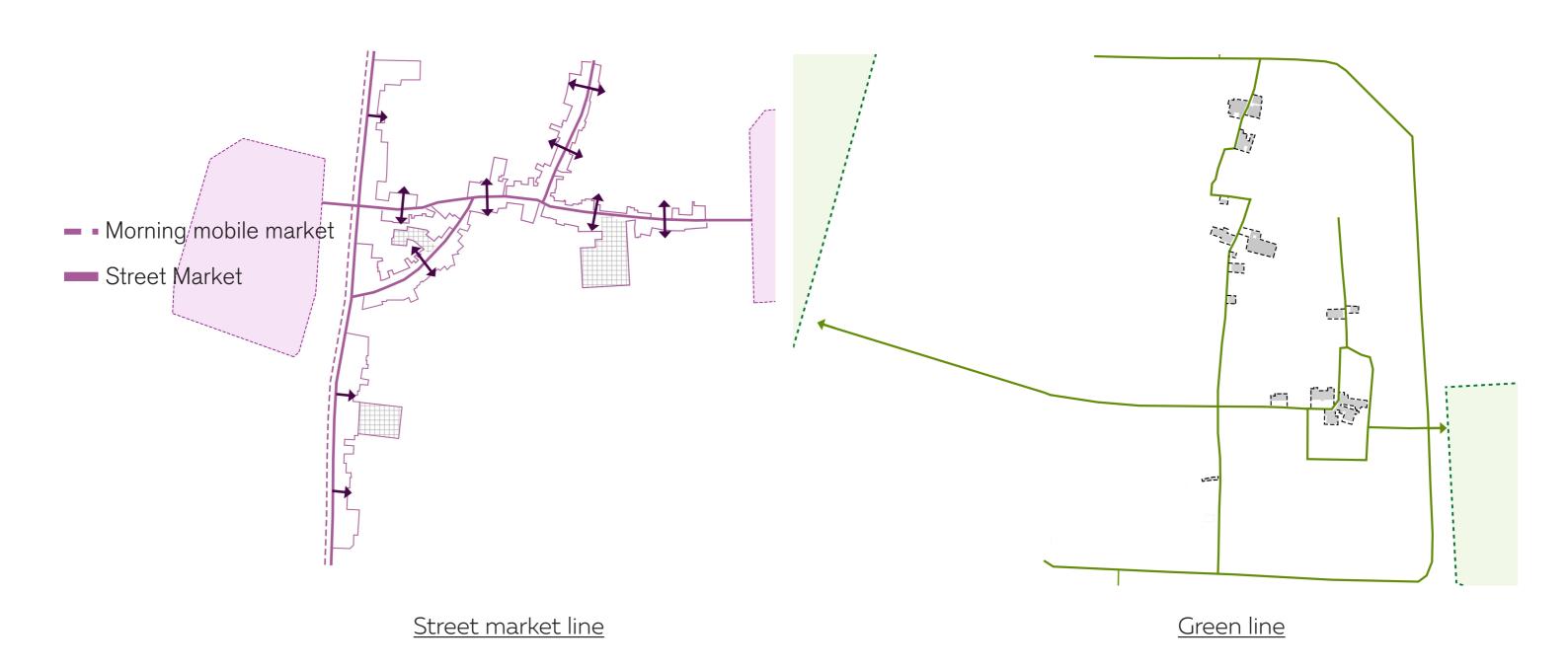


Historical lanes netwrok& tourism line

Main car lanes and parking dirstribution

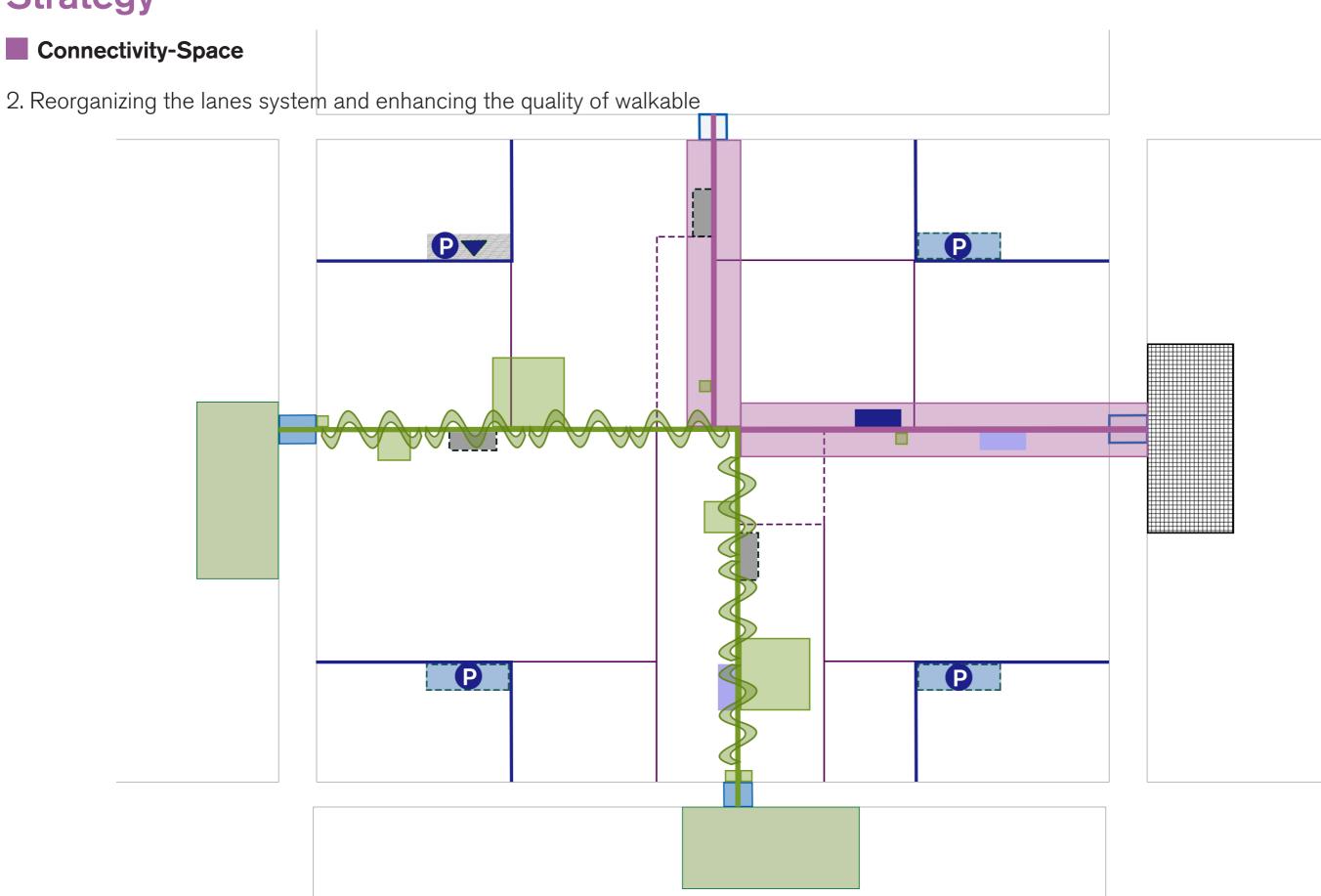
■ Connectivity-Space

1. Determining neighborhood main connectivity network



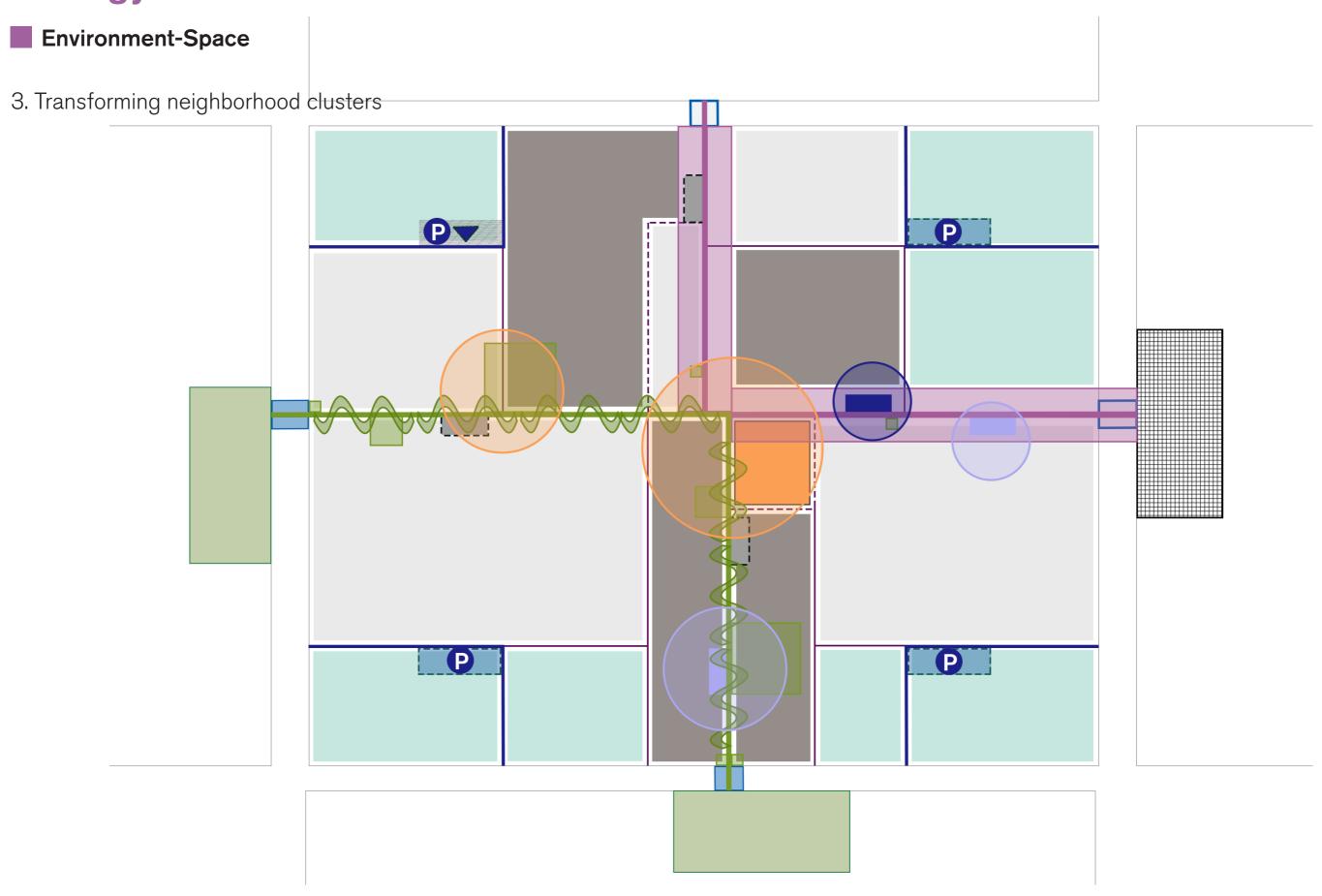


Strategy





Strategy

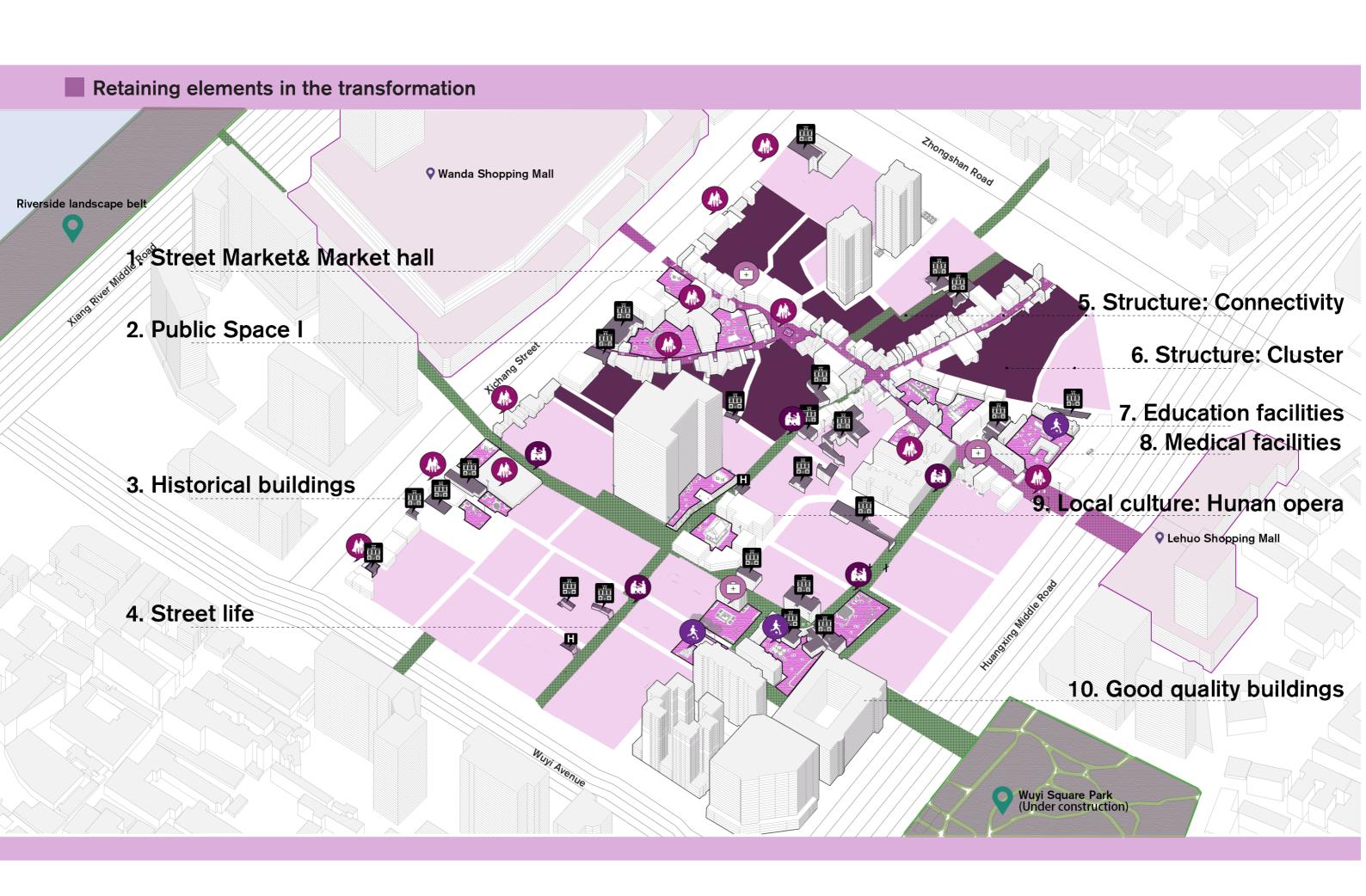








Place-making based on collective memory **♀** Wanda Shopping Mall Riverside landscape belt Name of the street: related to commerce 2. Sound of hawking 6. Education facilities 7. Medical facilities 3. Historical buildings 8. Local culture: Hunan opera **Q** Lehuo Shopping Mall 4. Street life 5. 2-3 floors of the main lanes Wuyi Square Park (Under construction)



Variable elements in the transformation

PRINCIPLES

1. HOUSING: the overall numbers of new housings should be more than the demolishing one

- Housing resettlement

sunlight &ventilate condition.

- Currency allocation

In each small block, the first stage of transformation would start with demolishing condemned buildings. If the average quality of these buildings is more or less the same, transformation would start with demolishing low density. What would replace them are taller and more neatly organized housings in order to accommodate both the original and new residents. The second stage would aim at voiding the central part of each block to obtain more effective public space. The last stage would be replacing the obsolete buildings along the lanes.

Should be aged-friendly, especially has access facilities, and have good sunlight &ventilate condition.

nousings should be more than the demolishing t

2. ORIGINAL RESIDENTS

- Buildings along the slow traffic priority lanes should be lower than 4 floors to keep the original senses of historical street. Commerce mixed with residence

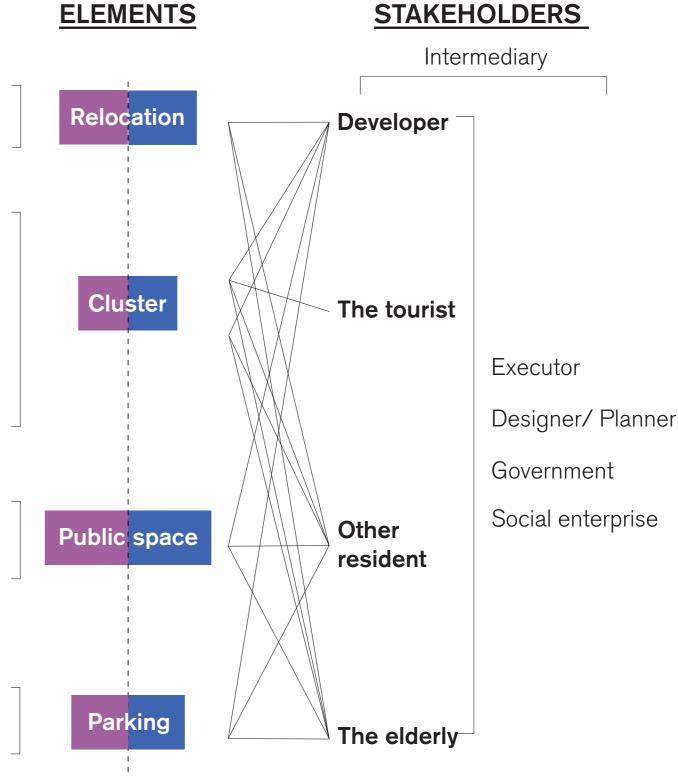
Only residence



Should be designed to happen varied activities, meet the requirements for different groups of residents and enhance local culture.

Should be aged-friendly, especially has access facilities, and have good

For underground parking area, keep as much as possible. For existing ground parking area, according to actual car requirement, keep or add the places which are near city roads and has the potential to be transformed into green space, since it won't be needed if there is less cars in the future.



■ Transformation Process

Public space I

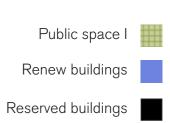
Renewed buildings

Reserved buildings

Flexible buildings

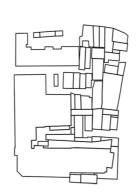


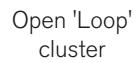




Flexible buildings

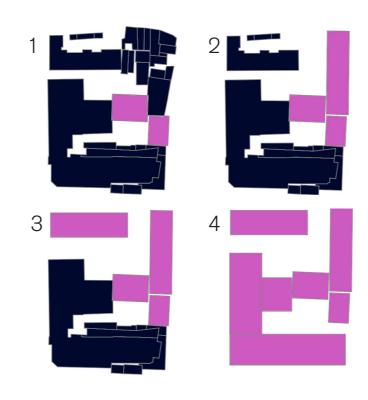
In the block which mixed with different stages, always started with **the condemned one**. Then dealed with those blocked the lanes.

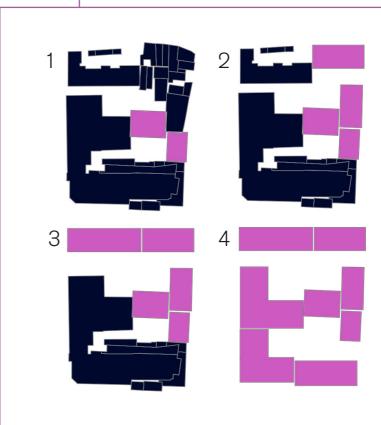








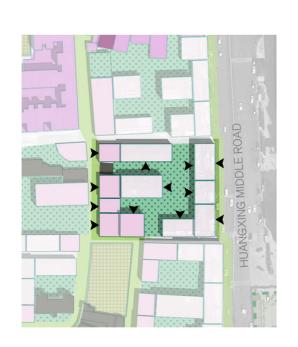


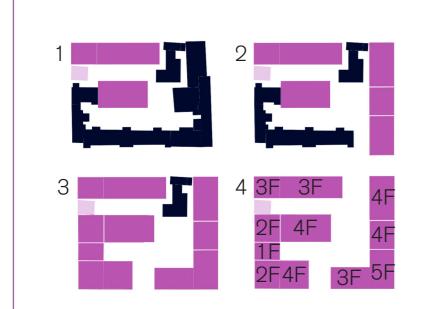


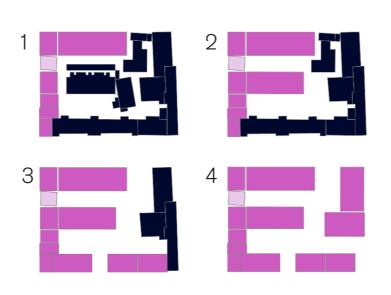
If the average quality of these buildings are more or less the same, transformation would start with **demolishing low density**. What would replace them are taller and more neatly organised housings in order to accommodate both the original and new residents.

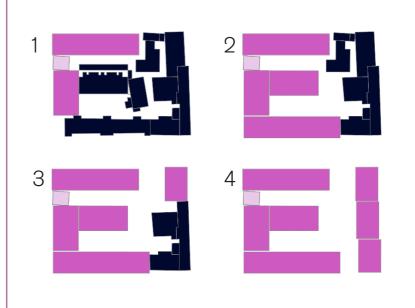


Open 'Loop' cluster





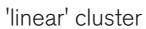


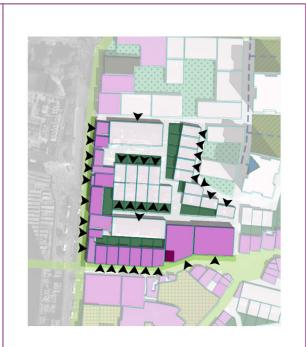


The new 'linear' typology should combine with two types of buildings, one is individual flat, the other is centralized apartment. The first stage of renewal should **build centralized apartment for later relocation.**











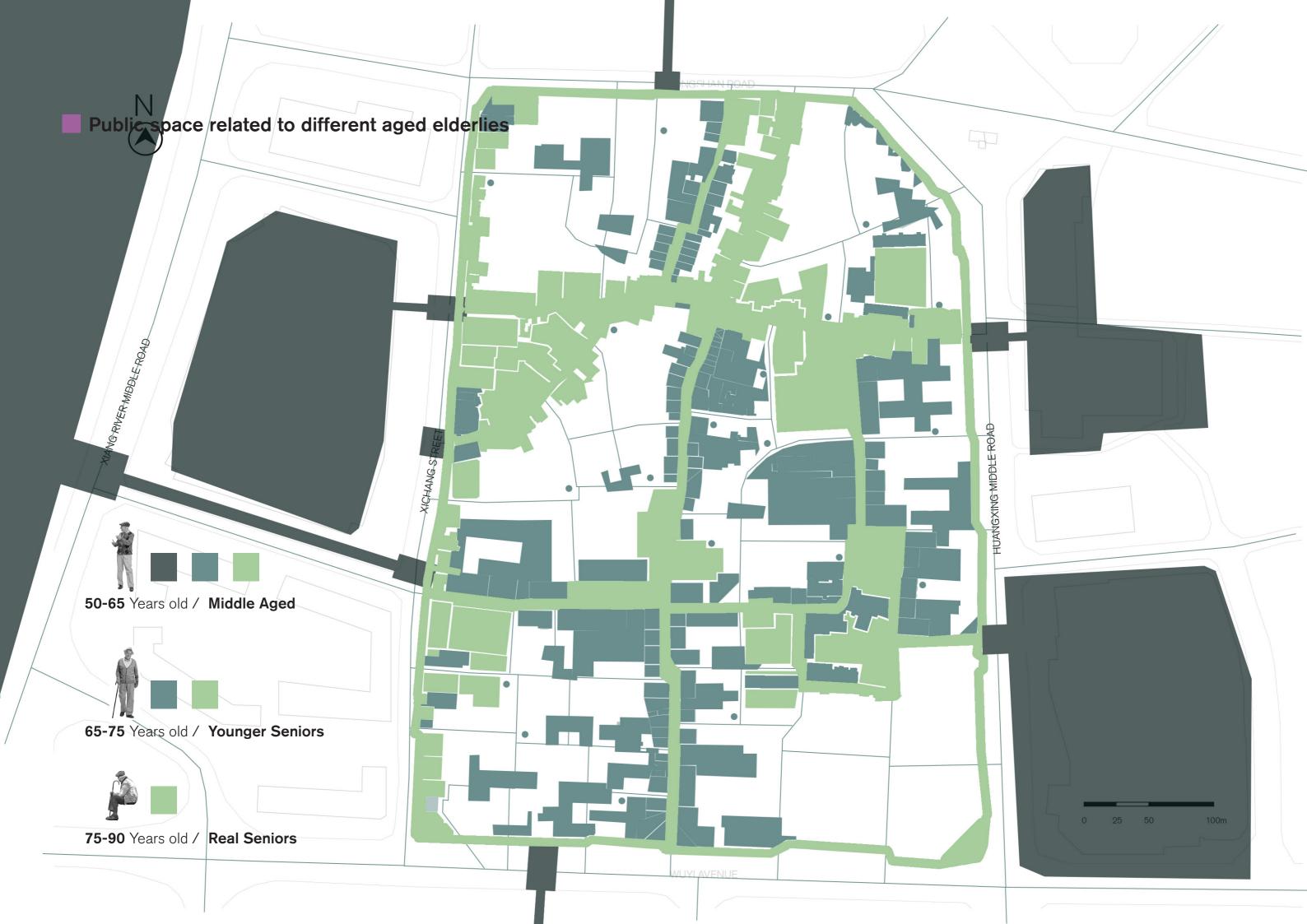






Main facilities and actions related to the profile of different age elderlies in site

	AGE LEVEL	LIVING PATTERN	HOUSING TYPOLOGY	PUBLIC SPACE CLASSIFICATION		
	 		-Individual -Apartment flat	Outside the neighborhood	Inside the neighborhood	
50-65 Years old	Middle Aged	Live on themselves	Ilat	-Highlights sidewalk outside the neighborhood	-Highlights free space	
65-75 Years old	Younger Seniors	Live on themselves/ live partly on themselves	-Apartment			
75-90 Years old	Real Seniors	Live partly on themselves/ cannot live on themselves	-Sharing apartment			

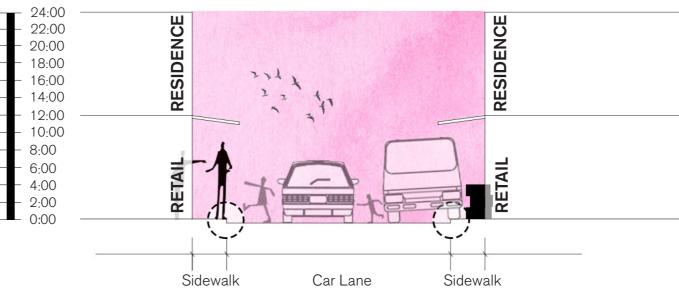


■ 'Sharing' lane——slow traffic priority

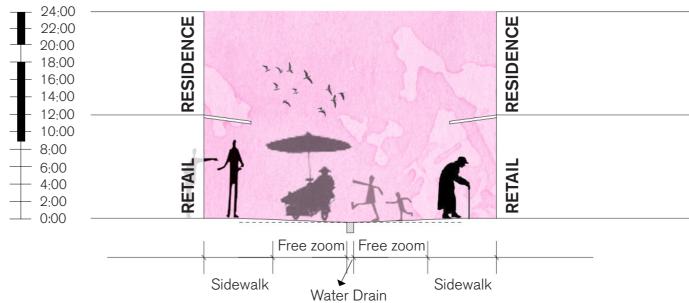
Street market (only ground floor is commerce, upper still are residence)



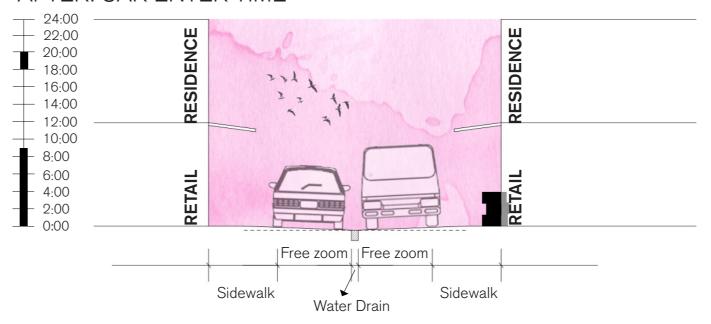
BEFORE



AFTER: CAR-FREE TIME



AFTER: CAR ENTER TIME

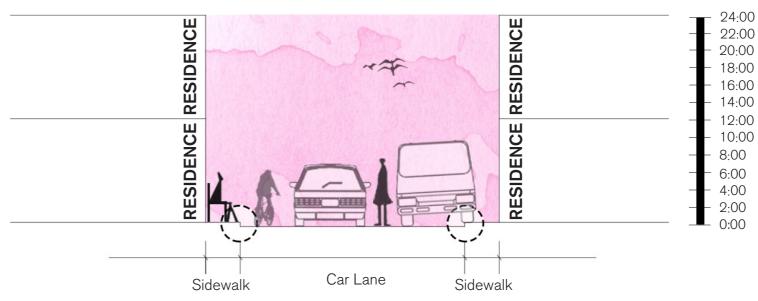


Sharing' lane——slow traffic priority

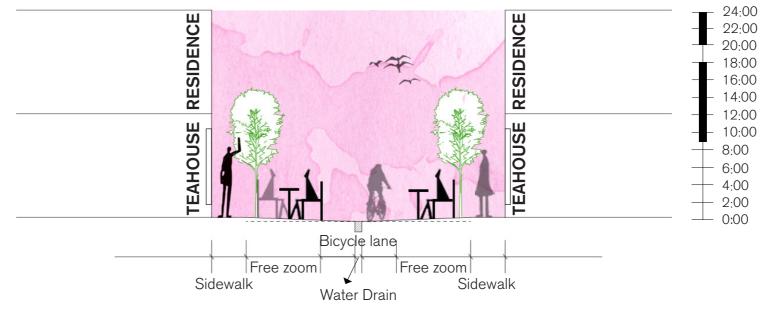
Catering and souvenir shops (only ground floor is commerce, upper still are residence)



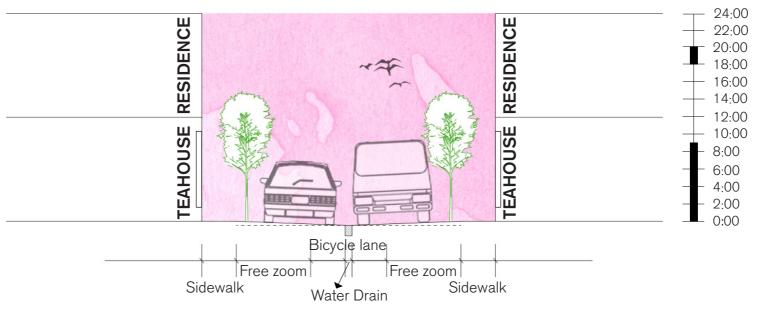
BEFORE



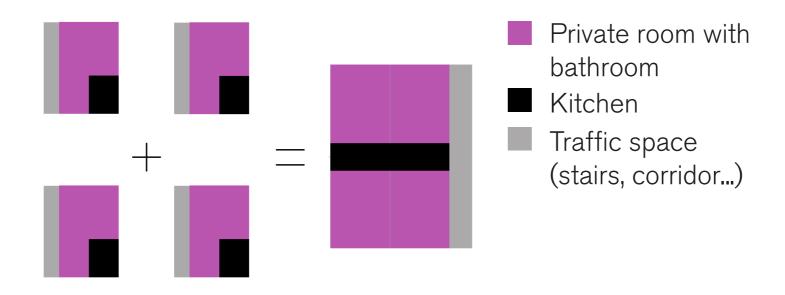
AFTER: CAR-FREE TIME

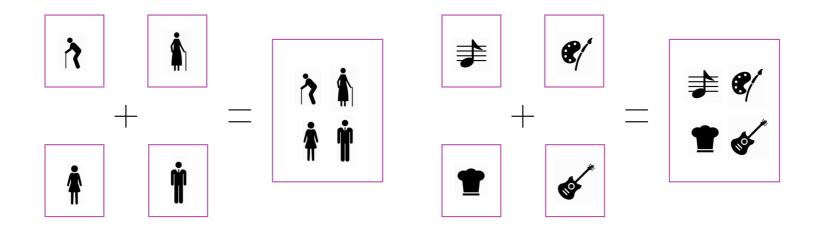


AFTER: CAR ENTER TIME



'Sharing' typology





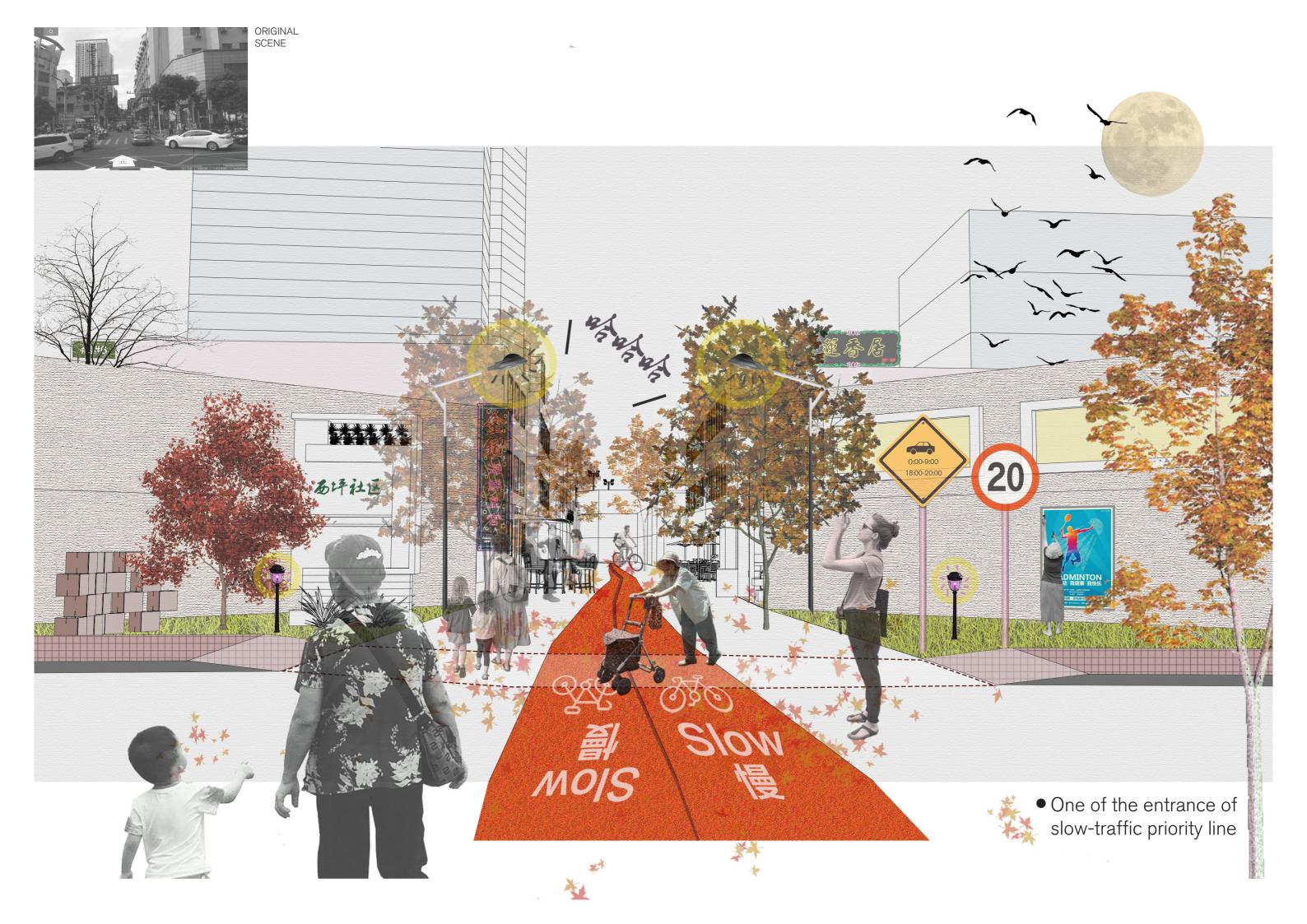
Sharing' typology project in Taiwan



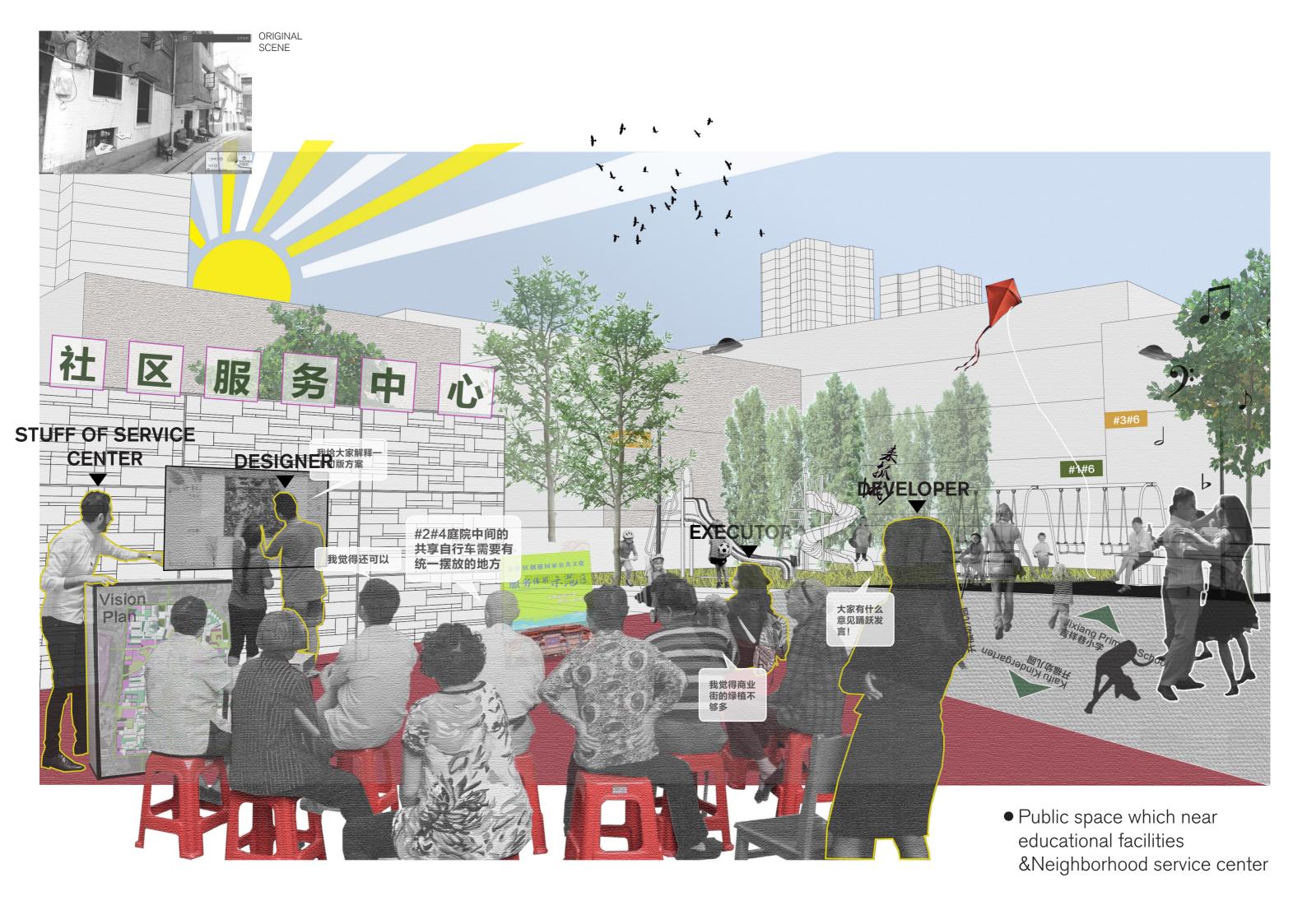




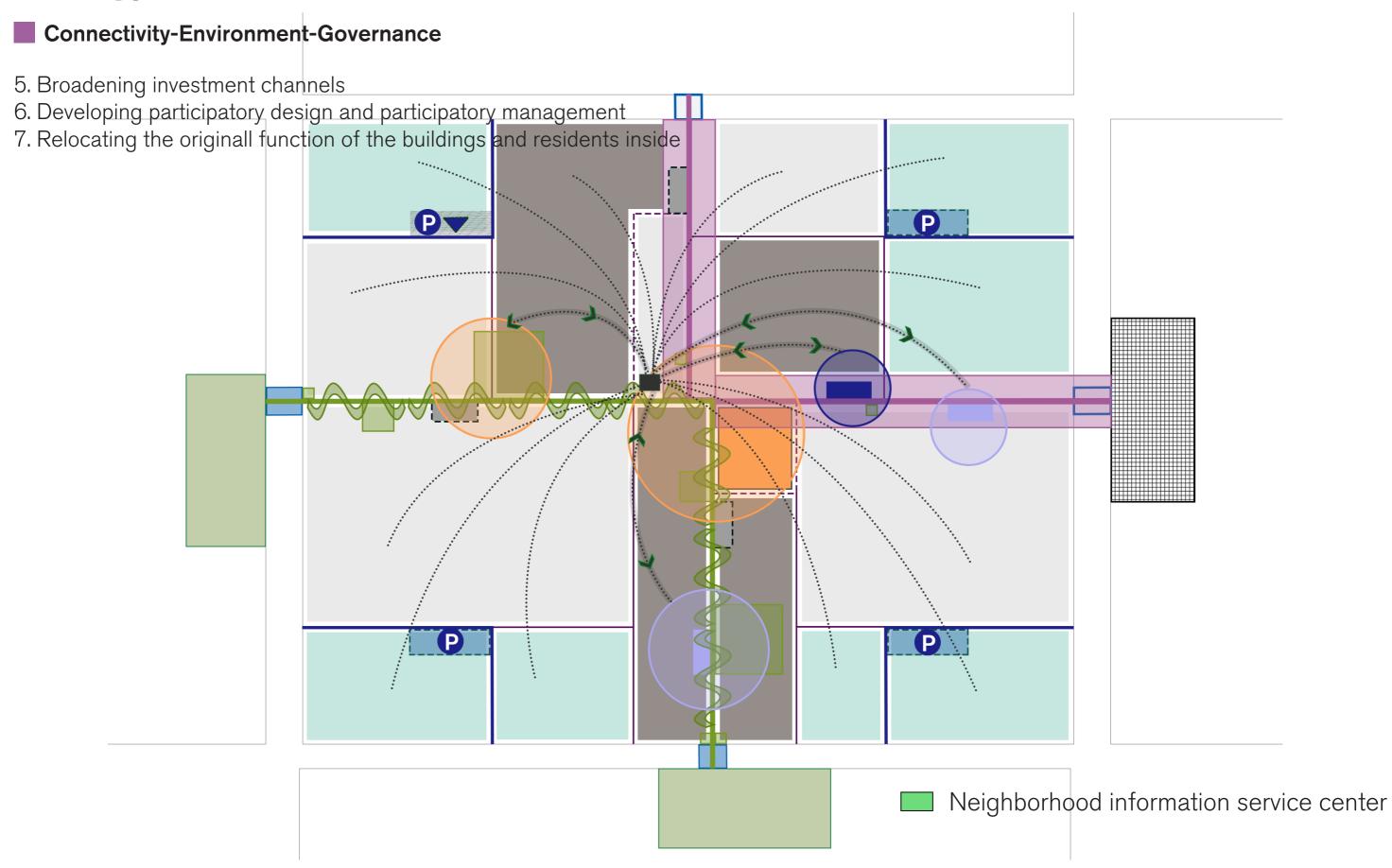




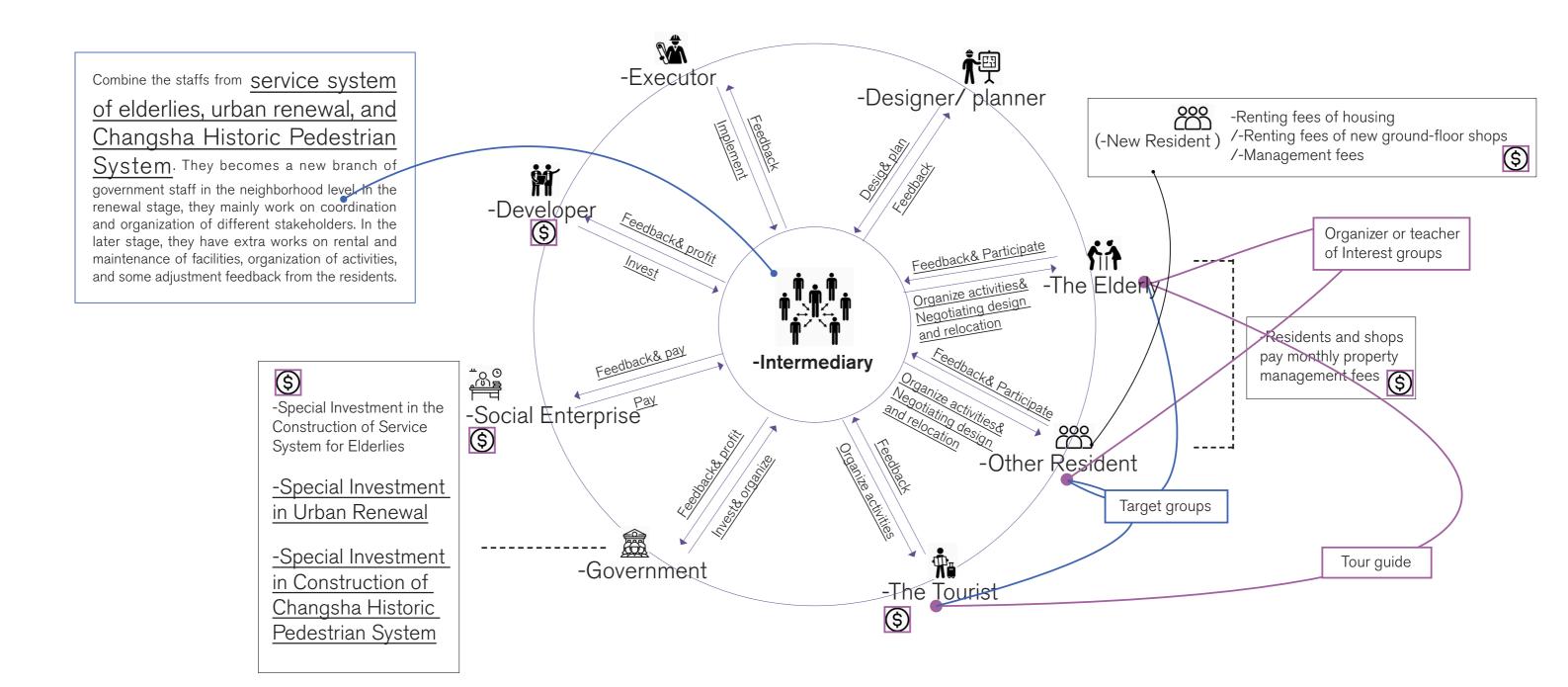




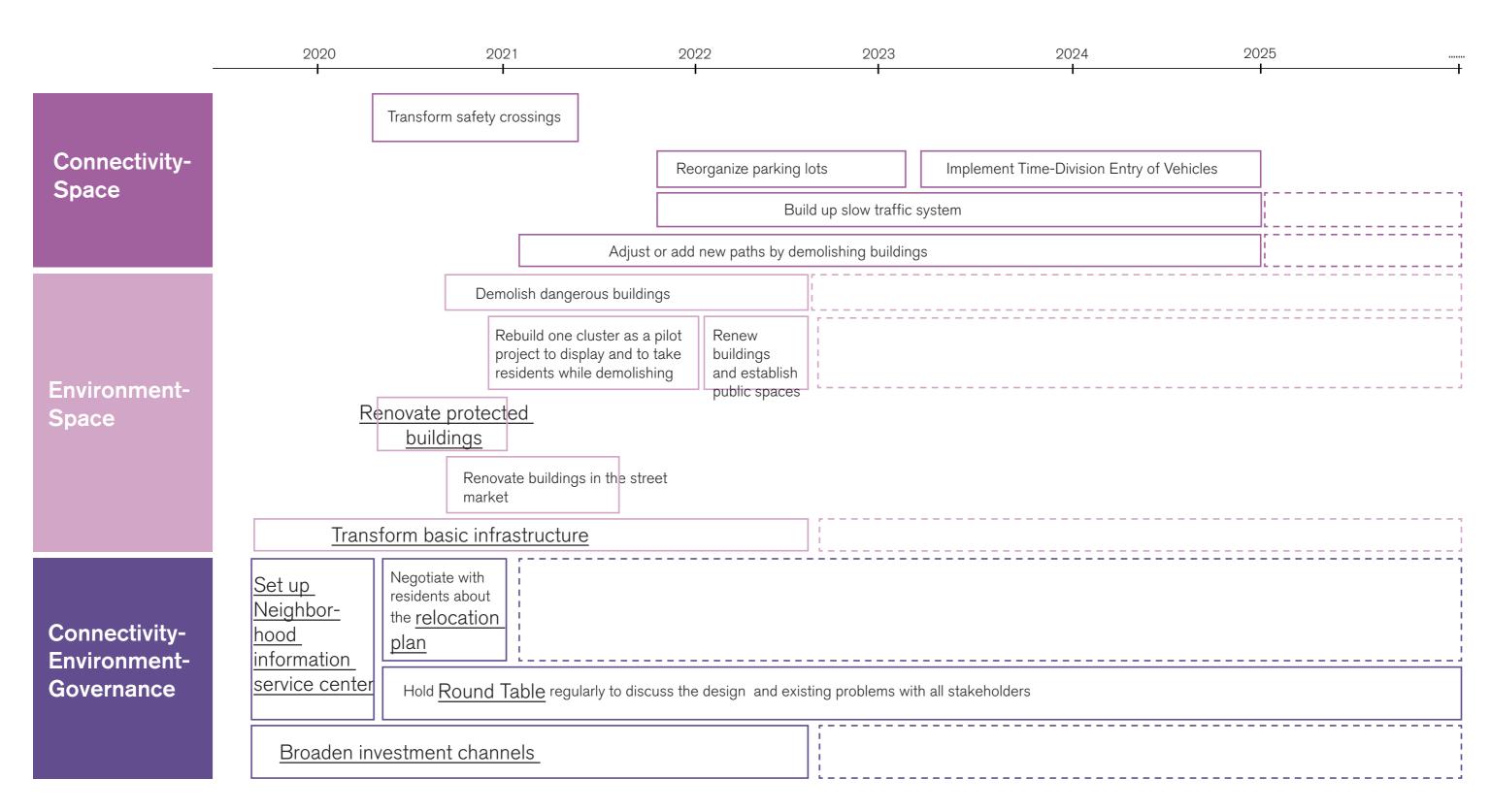
Strategy



Stakeholder and finance

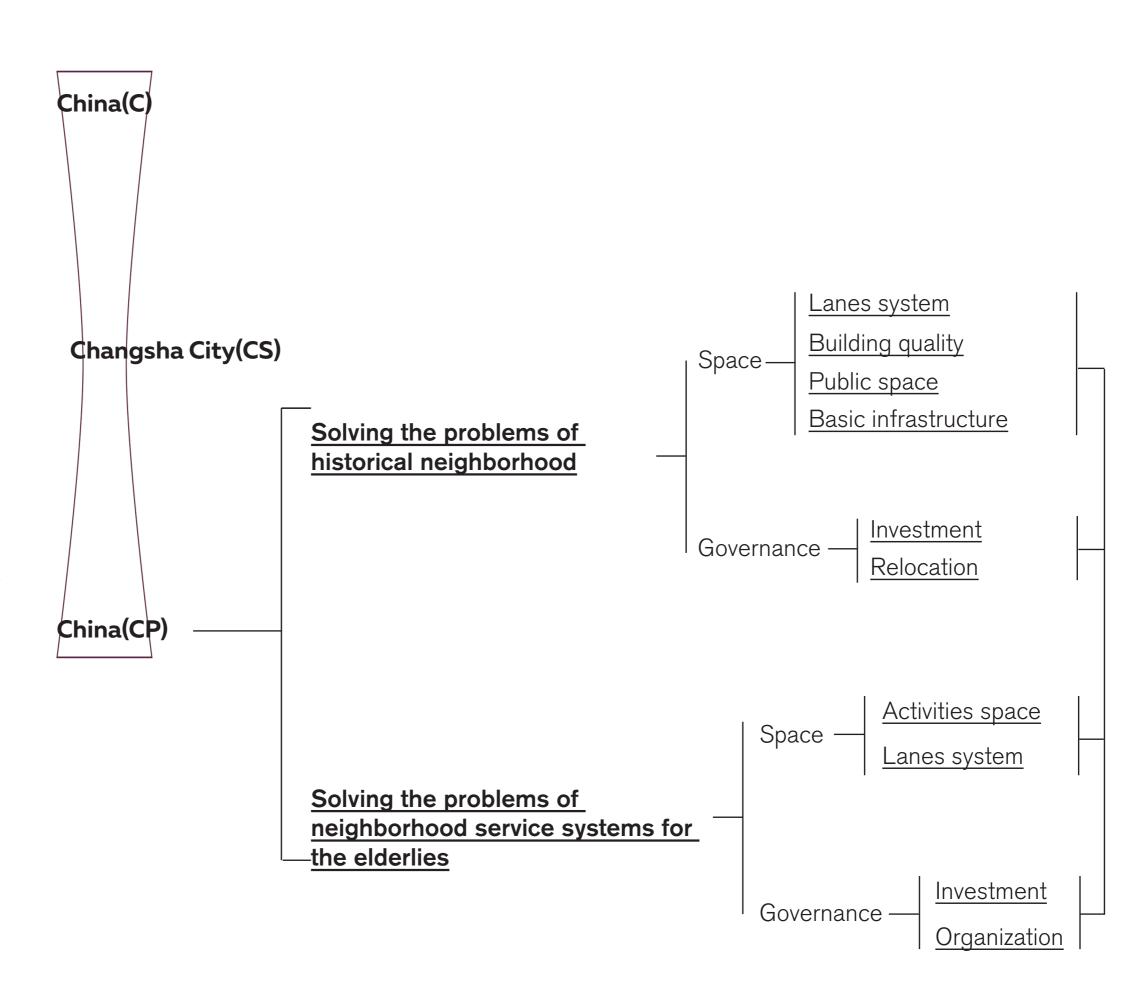


Road map



Reflect on China level

- -Context
- -Problem field
- -Problem statement
- -Aim
- -Conceptual framework
- -Theoretical framework
- -I Context of agedfriendly&place-making
- -II Context of walkability &place-making
- -Vision
- -Changsha's special identity and common scenes
- -Reflection



Thank you! 谢谢大家来! 謝謝大家來! Dank je! Danke dir! Gracias! Kiitos!

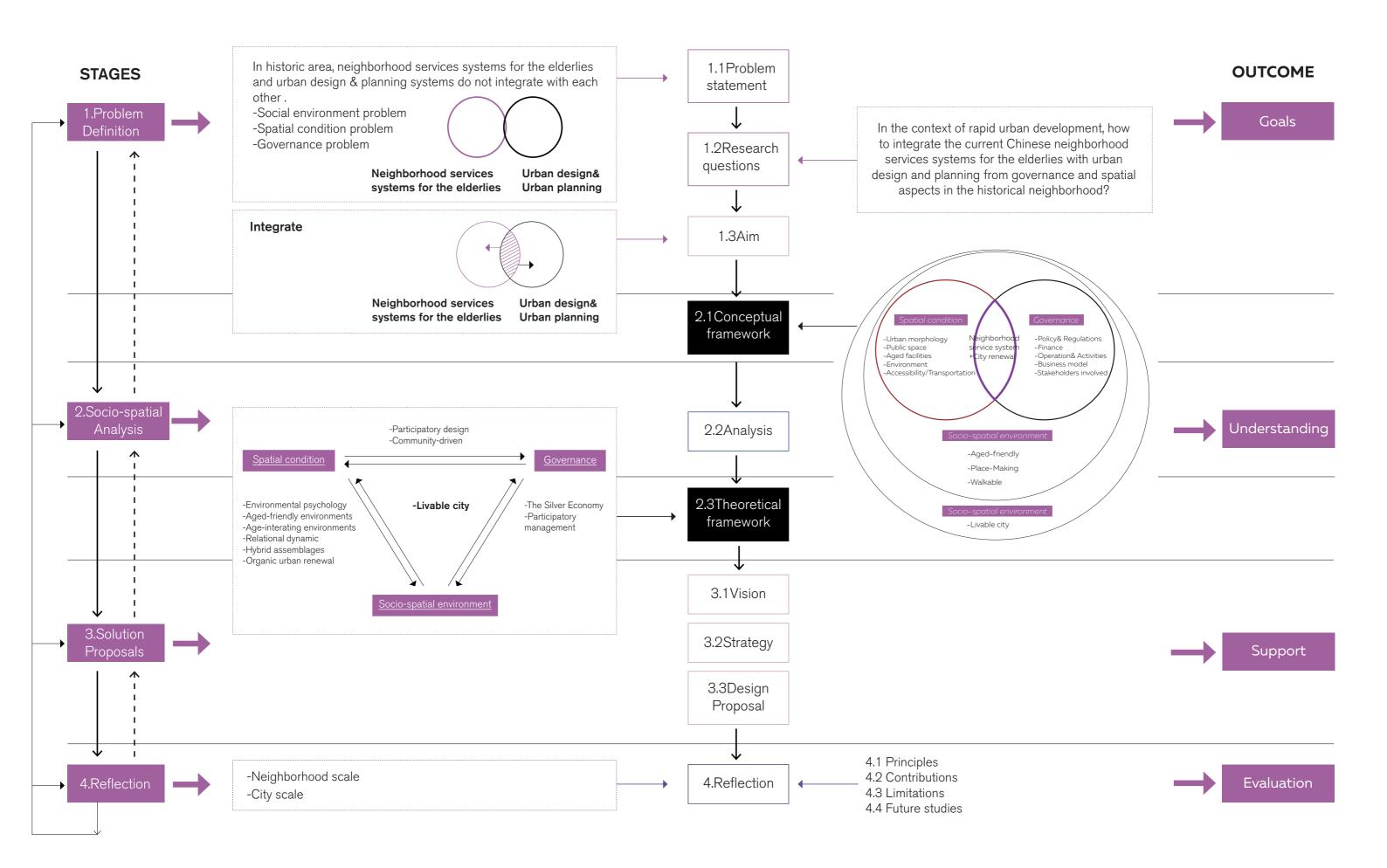
شكرا لك

आपका धन्यवाद

(Sorry, I don't have these three fonts)

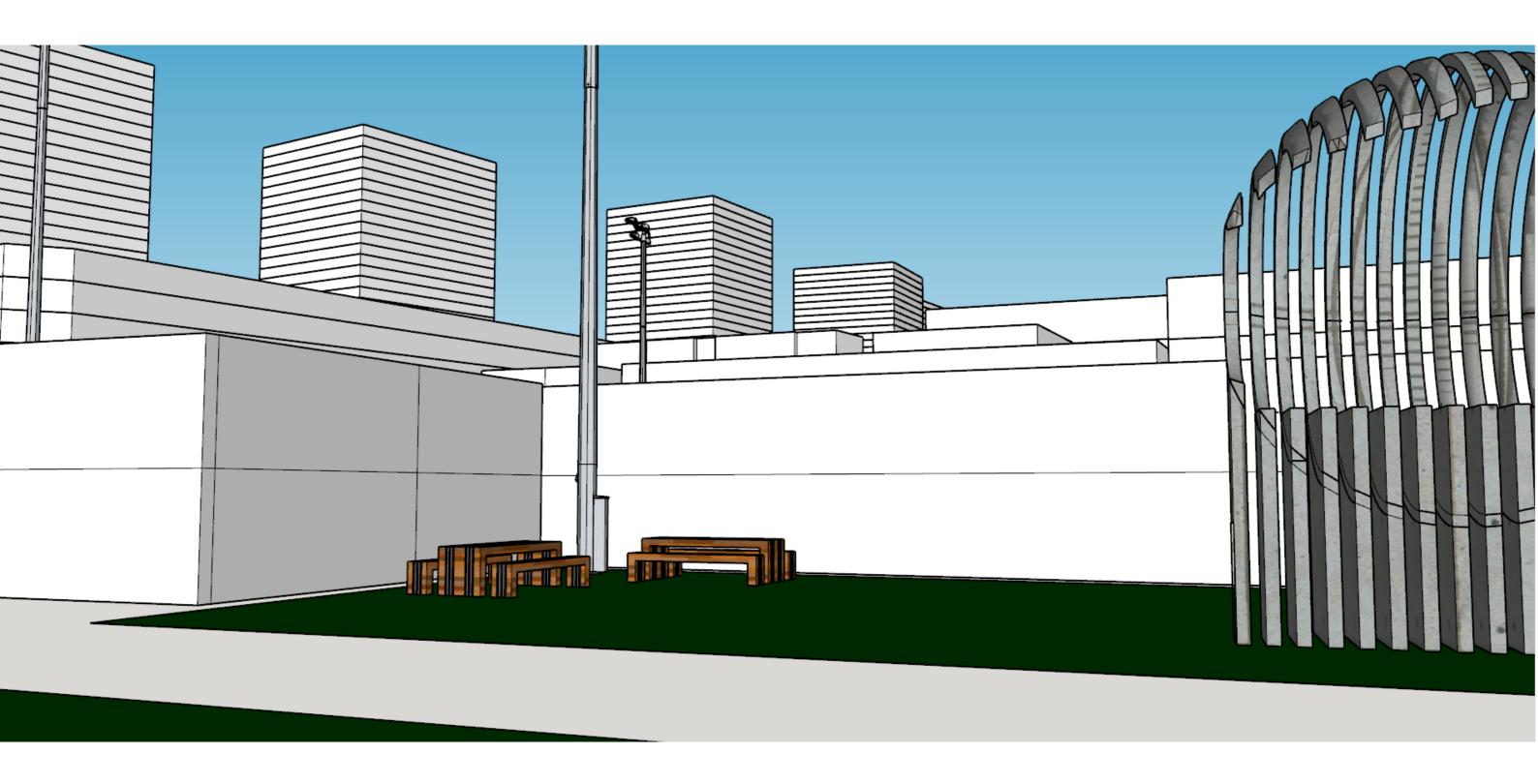
Dziękuję



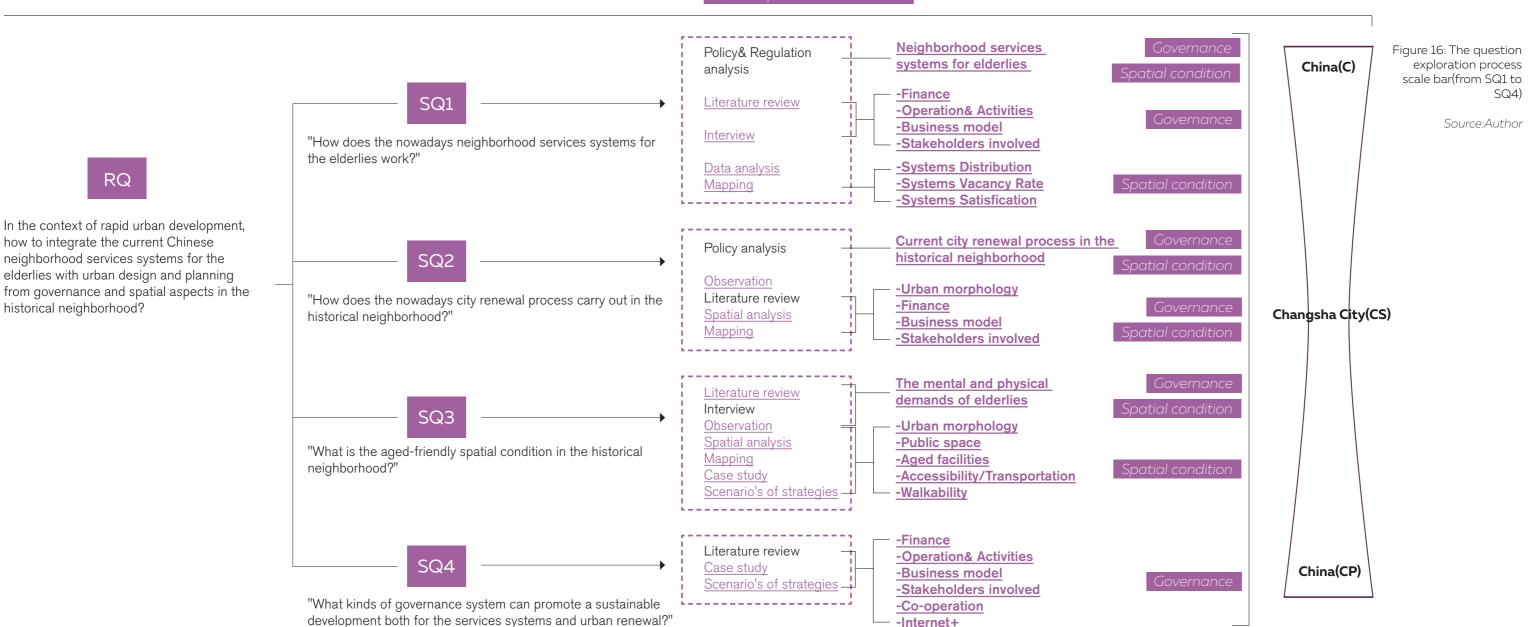




Bicycle parking how to connect the public space with markethall (entrance/side door) (barrier-free) People's acitivities



6.2 METHODS AND MILESTONES



-Internet+

Day-care center





Category	1	2
Area	≥600 m²	400 m² ≤ x < 600 m²
Resting Bed	≥10 beds	5 beds ≤ x<10 beds
Life Service Room	Resting room /Bathroom /Canteen	Resting room /Bathroom /Canteen
Health Care Room	Health care room (including counselling)/ Exercise room	Health care room (including counselling)
Recreational Room	Mixed-used recreational room	Mixed-used recreational room
Additional Room	Office/Storage room	Office/Storage room
Outdoor Area	≥100 m²	<100 m²
Basic Equipment	Necessary and related equipments and stuffs that life service, health care, recreation, safety and firefighting needed/ Necessary transportation	

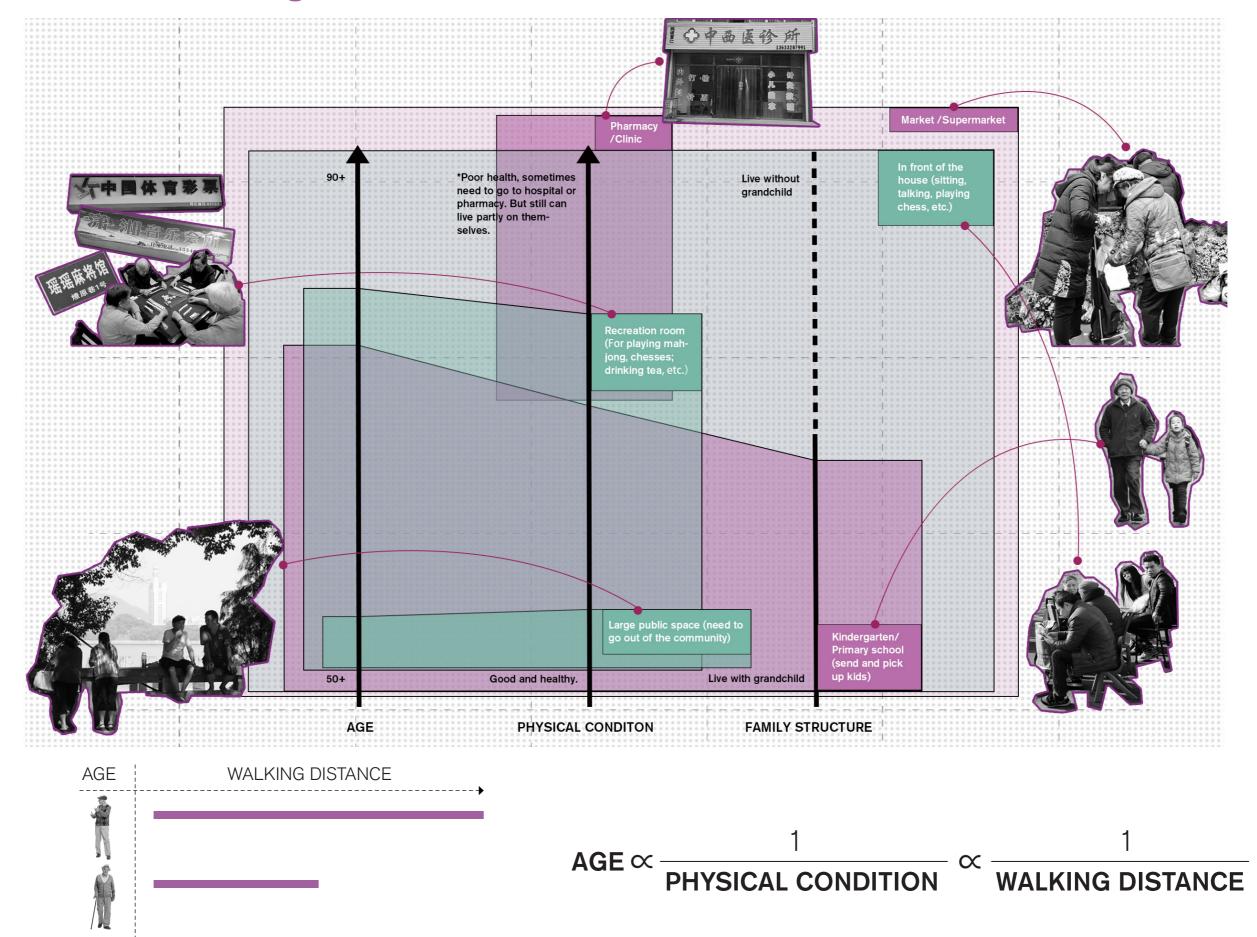
Neighborhood services center

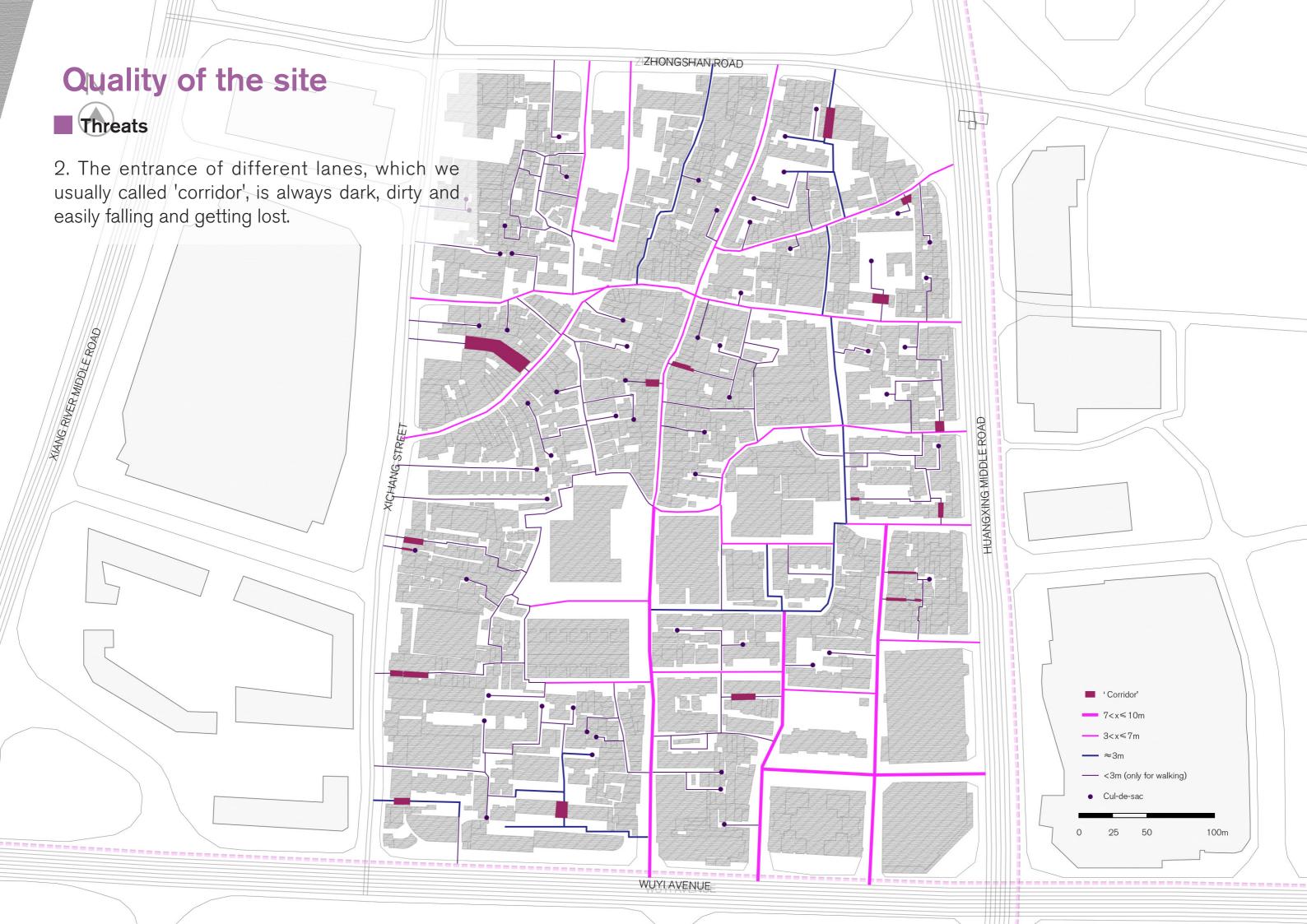




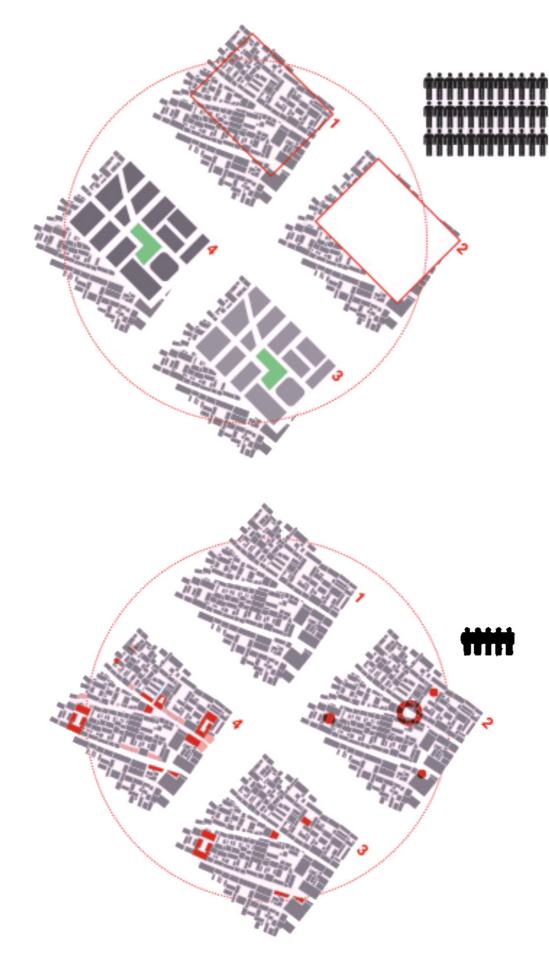
Category	1	2
Area	≥400 m²	200 m² < x < 400 m²
Resting Bed	≥5 beds	<5 beds
Life Service Room	Resting room /Toliet /Canteen	Resting room /Pantry
Health Care Room	/	/
Recreational Room	Mixed-used recreational room	Mixed-used recreational room
Additional Room	Office	Office
Outdoor Area	/	/
Basic Equipment	Necessary and related equipments and stuffs that life service, health care, recreation, safety and firefighting needed	

Distribution and usage of the facilites





City renewal

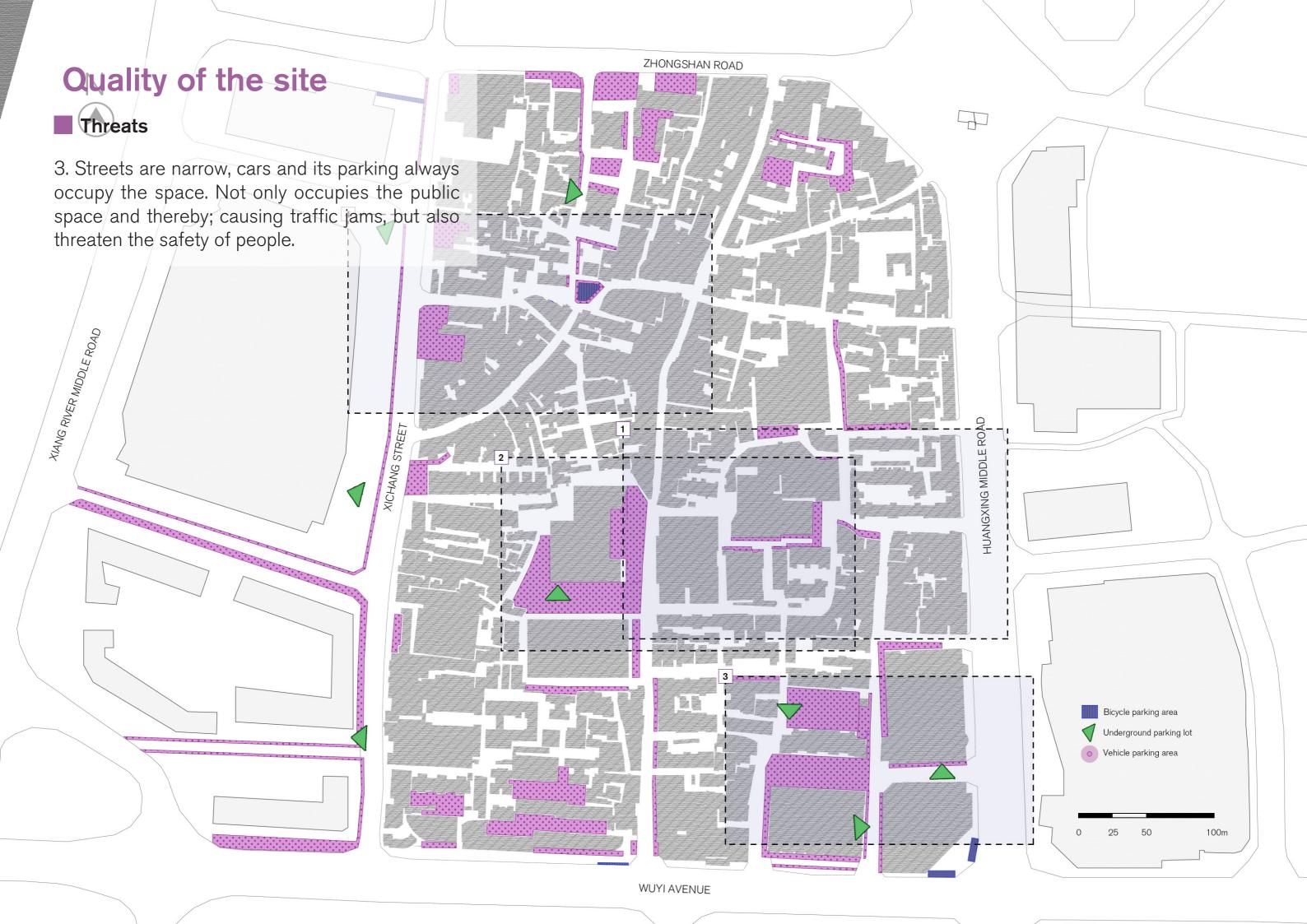


LARGE-SCALE DEMOLITION AND RECONSTRUCTION

- 1. Ascertain development zone.
- 2. Residents are compensated for relocation.
- 3. All the buildings in the development zone are removed and rebuilt in a short period.
- 4. Zones are injected large-scale commercial, office buildings or residentials. (dashilar.beijing99.cn) (Zhang, J., 2016)

'ORGANIC RENEWAL'

- 1. Comprehensive renovation
- 2. Micro transformation
- 3. Small-scale demolition and reconstruction
- 4. Enhancement of Environmental Quality (Chen, L., Luo, S., & Wang, C., 2018)



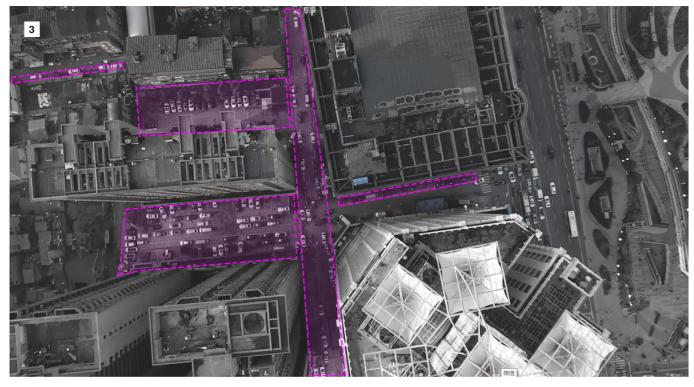
Quality of the site

Threats

3. Streets are narrow, cars and its parking always occupy the space. Not only occupies the public space and thereby; causing traffic jams, but also threaten the safety of people.

3.1 The distribution of parking areas









Quality of the site

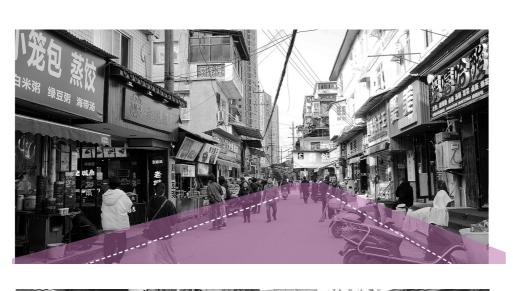
Threats

- 3. Streets are narrow, cars and its parking always occupy the space. Not only occupies the public space, causing traffic jam, but also threaten the safety for the elderly.
 - 3.2 The classification of car lanes

7-10m

3-5m

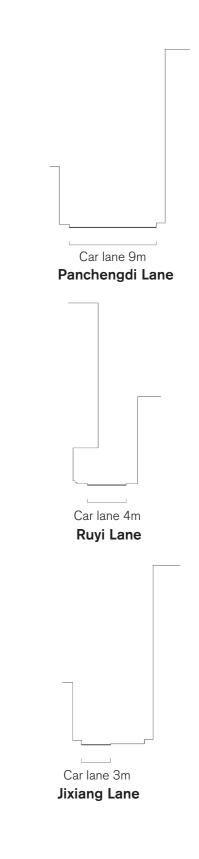
≈3m

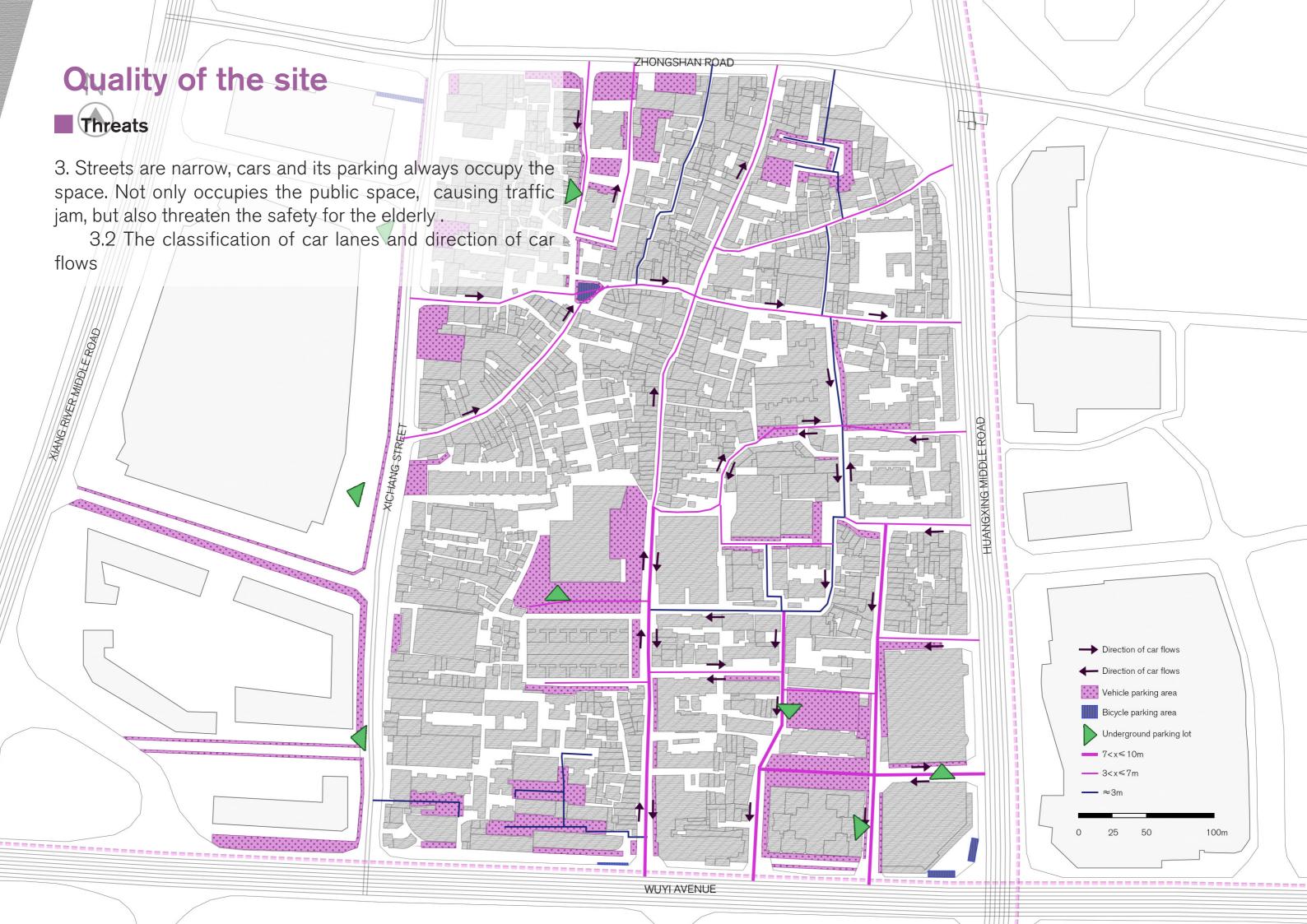


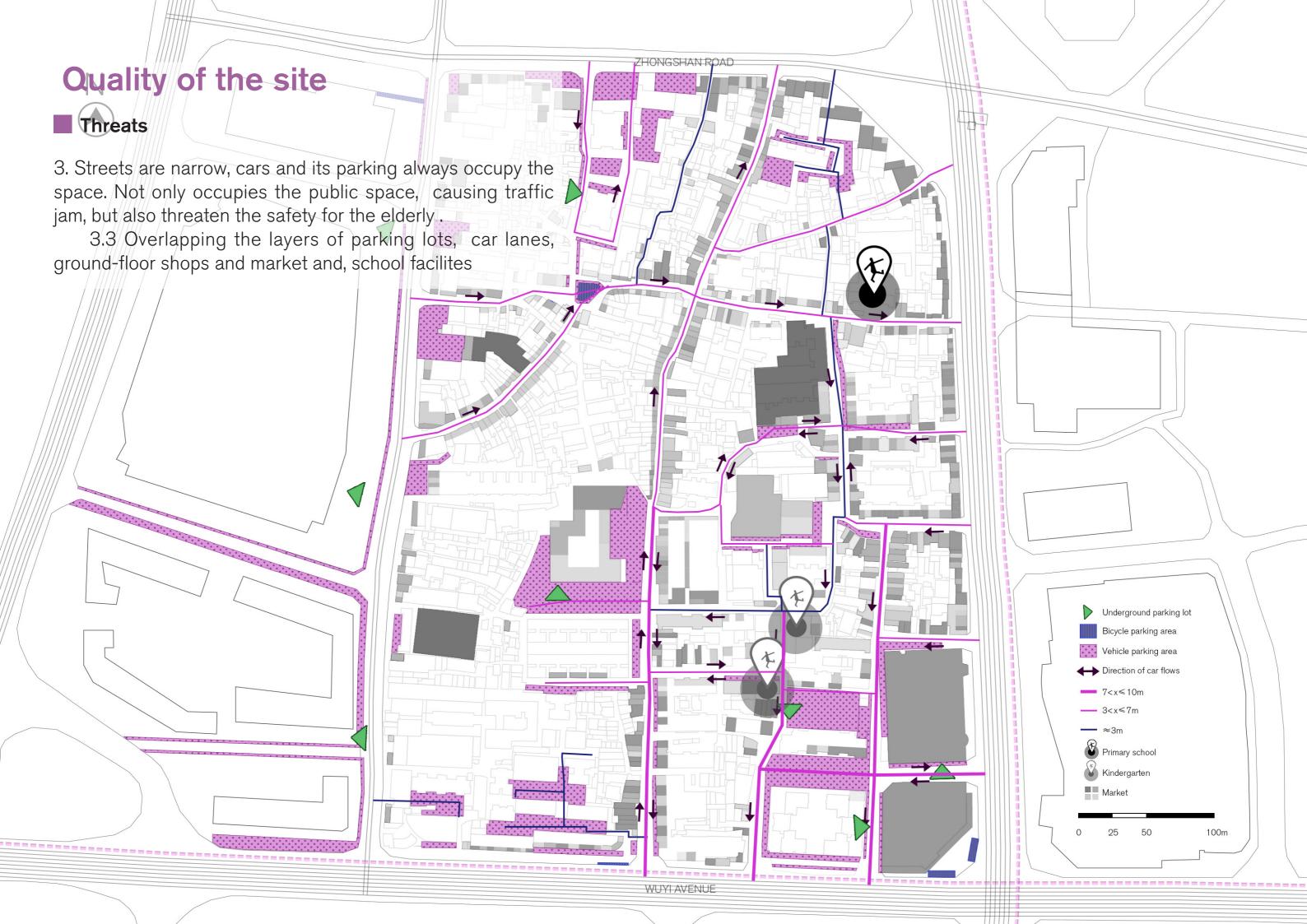






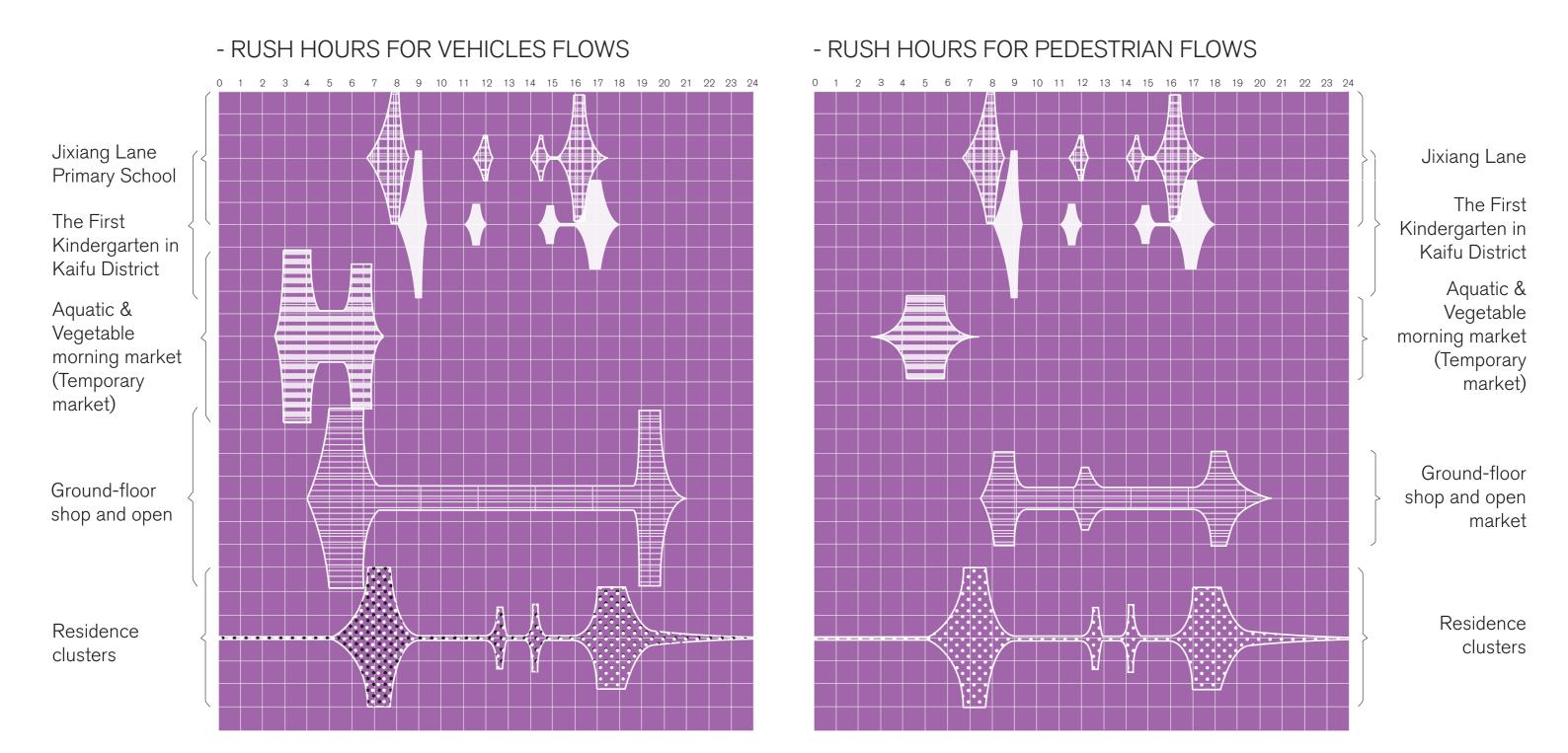






Quality of the site

Threats



Coverage rate of the facilites

Methodology

Context Problem field Policy& Regulation Neighborhood services systems for elderlies (C&CS) SQ1 analysis China(C) Problem Statement -Finance Literature review "How does the nowadays neighborhood -Operation& Activities Aim (C&CS) services systems for the elderlies work?" -Business model Interview -Stakeholders involved Research question -Systems Distribution -Systems Vacancy Rate Data analysis (CS) Methodology -Systems Satisfication SQ2 Current city renewal process in the Policy analysis (C&CS) historical neighborhood "How does the nowadays city renewal process carry out in the historical -Urban morphology Literature review neighborhood?" -Finance Spatial analysis (C&CS) Changsha City(CS) -Business model Mapping -Stakeholders involved SQ3 Literature review The mental and physical demands of elderlie (C&CS) Interview "What is the aged-friendly spatial Observation -Urban morphology condition in the historical neighborhood?" Spatial analysis -Public space Mapping -Aged facilities (CS&CP) -Accessibility/Transportation Case study Scenario's of strategies -Walkability SQ4 -Finance Literature review -Operation& Activities "What kinds of governance system can Case study China(CP) -Business model Scenario's of strategies promote a sustainbale development -Stakeholders involved (CS&CP) both for the services systems and urban -Co-operation -Internet+ renewal?"

Research question

Context

Problem field

Problem statement

Aim

Research question





In the context of rapid urban development, how to integrate the current Chinese **neighborhood** services systems for the elderlies with **urban design and planning** from governance and spatial aspects in the **historical neighborhood**?

