Beyond informality

Exploring strategies for redevelopment in informal settlements in Guangzhou (China)

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CONTEXT

02

RESEARCH

03

ANALYSIS

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STRATEGY

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DESIGN
IMPLEMENTATION

CONTEXT

What are the informal settlements?

Bangkok, Thailand

Caracas, Venezuela

Pune, India

A type of urban housing that is self-constructed and self-managed, and mostly without the formal control of the government, which are common to see in the Global South.

CONTEXT

How do informal settlements look like in Chinese cities?

Urban villages

Basement apartments

Container dwellings

CONTEXT

Urban villages

CONTEXT

How do urban villages grow and develop?

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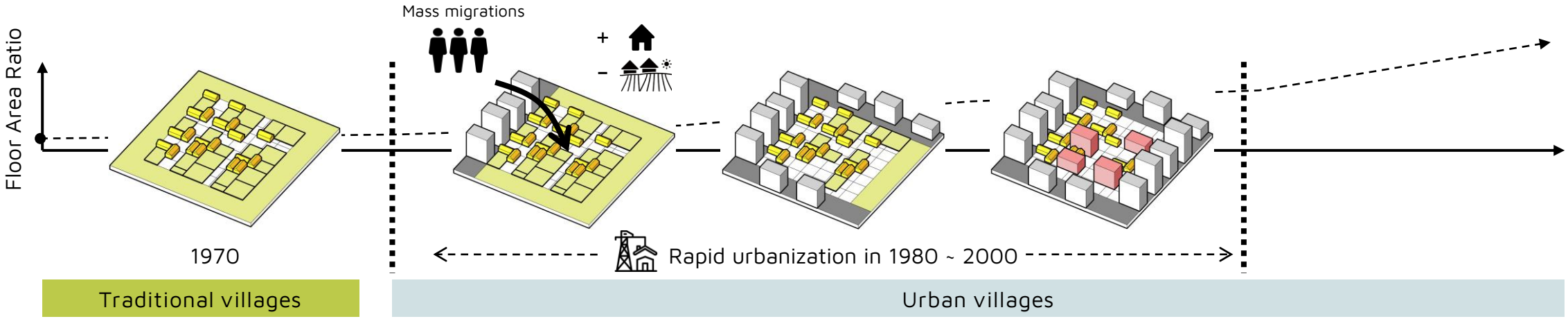
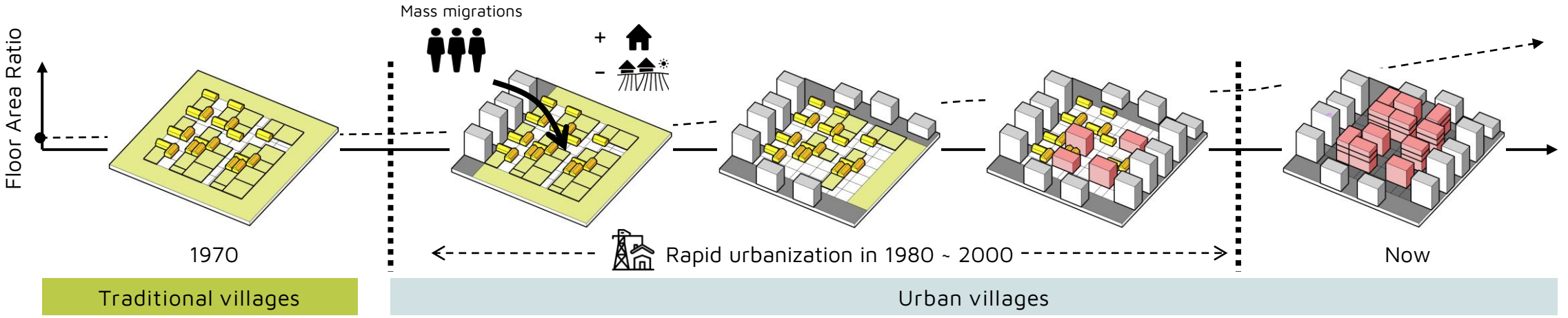


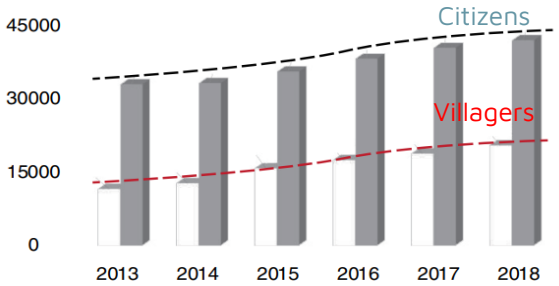
CONTEXT

How do urban villages grow and develop?

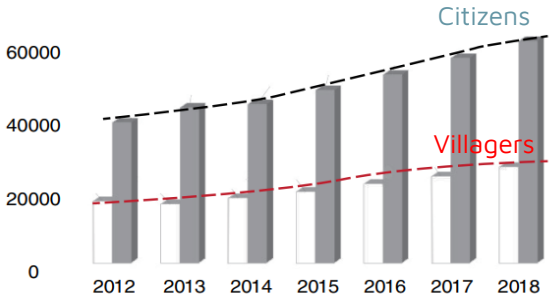


PROBLEM

What are the problems in urban villages?



. The per capita disposable income of rural and urban residents in Guangzhou



. Per capita consumption expenditure of rural and urban residents in Guangzhou

Social segregation

It is more difficult for Villagers and migrants to get into the formal market for jobs, education, and other social sources. Data shows that the average household income of residents in urban villages is 50% less than that of other urban residents

PROBLEM

What are the problems in urban villages?

Lack of public facilities & public spaces

The self-constructions in the informal settlements are mostly “room-by room accretion”, which leaves less places for public spaces and public buildings.

PROBLEM

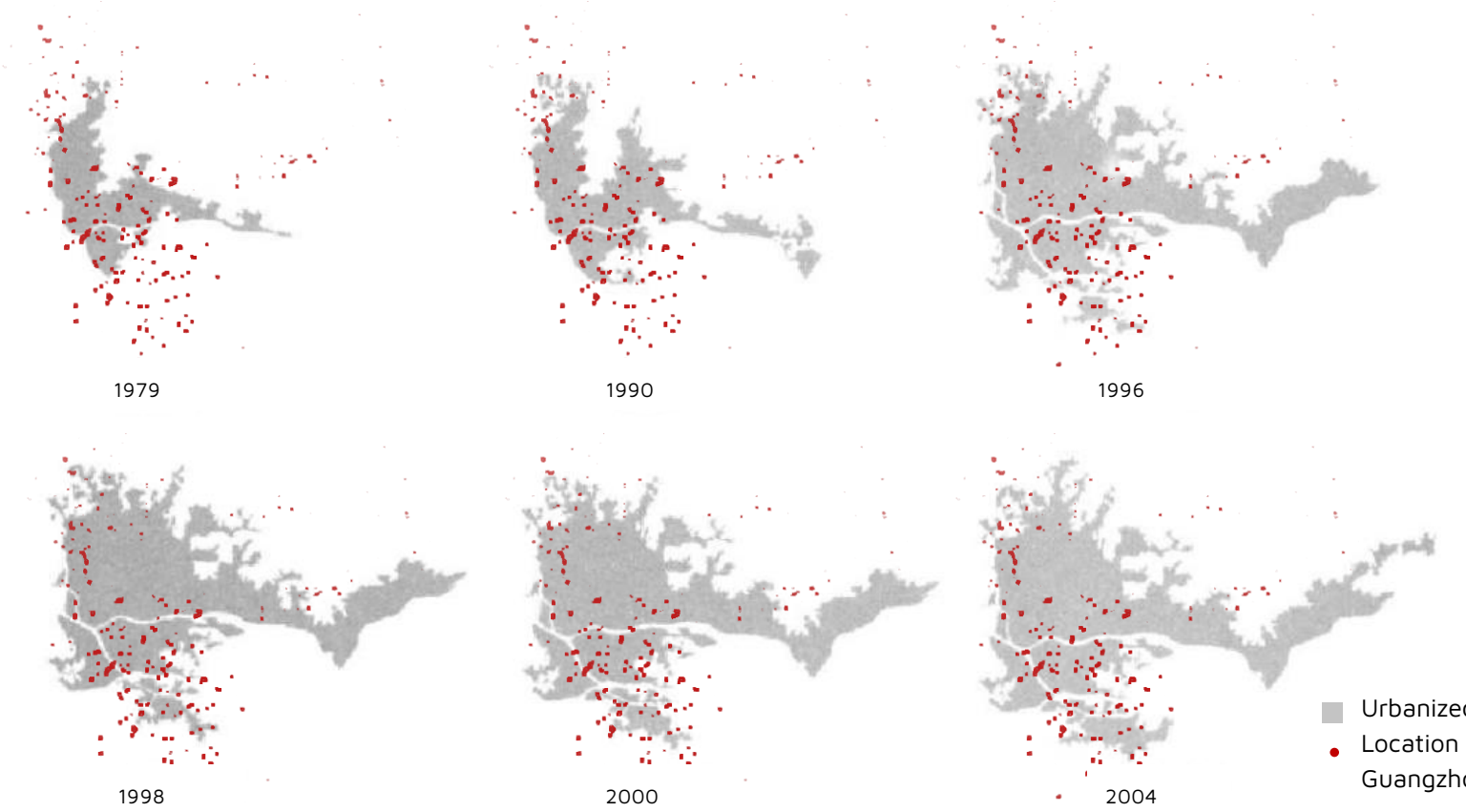
What are the problems in urban villages?

Pollution & unsafety

The sewage system in urban village is incomplete. 70% of the river pollution in Futian district (in Shenzhen) comes from urban villages. Also, from 2009 to 2014, there are 4132 fires happened in urban villages in Guangzhou, accounting for about 57.44% of all fires in the whole Guangzhou city.

PROBLEM

Policy on regenerating the urban villages



Urban expansion has led to a rise in the number of villages in the city, as well as the land value of these villages (Lin et al., 2011).

PROBLEM

Policy on regenerating the urban villages

"THREE OLD TRANSFORMATION"

- Old villages
- Old factories
- Old towns

Before 2007 ----------> Now

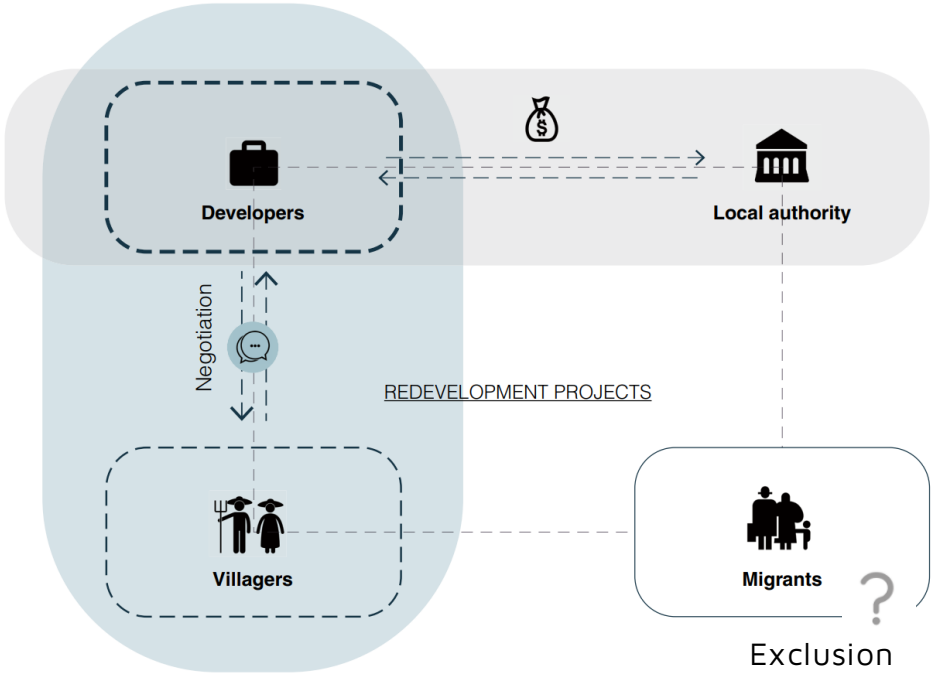
Liede Village in Guangzhou

"Three old transformation" policy (2009)

By the end of June 2020, the local authority had given permission to more than 57 urban village redevelopment projects (covering 24.9 square kilometers in Guangzhou).

PROBLEM

Policy on regenerating the urban villages



Exclusion

Gentrification

Housing demand of migrants are ignored in current market-led redevelopment programs

RESEARCH QUESTION

How to facilitate the redevelopment of urban villages in Guangzhou in a more inclusive and sustainable manner, which provides a livable environment and promotes social integration?

RESEARCH QUESTION

Main research question

How to facilitate the redevelopment of urban villages in Guangzhou in a more inclusive and sustainable manner, which provides a livable environment and promotes social integration?

ANALYSIS

Sub Group 1

Form
Role
Governance

|<---------- City scale ---------->|

RESEARCH QUESTION

Main research question

How to facilitate the redevelopment of urban villages in Guangzhou in a more inclusive and sustainable manner, which provides a livable environment and promotes social integration?

ANALYSIS	EXPOSE	PROPOSE
Sub Group 1	Sub Group 2	Sub Group 3
Form Role Governance	Criteria for livability and social integration Spatial & social characteristics Demands of different stakeholders	Strategies and implementation

City scale ---------- Village scale

VILLAGES IN GUANGZHOU

VILLAGES IN GUANGZHOU

Area of Guangzhou

7,434 km2
City

Area of urban villages

534.63 km2
Urban Villages

7.2%
of the total area of Guangzhou

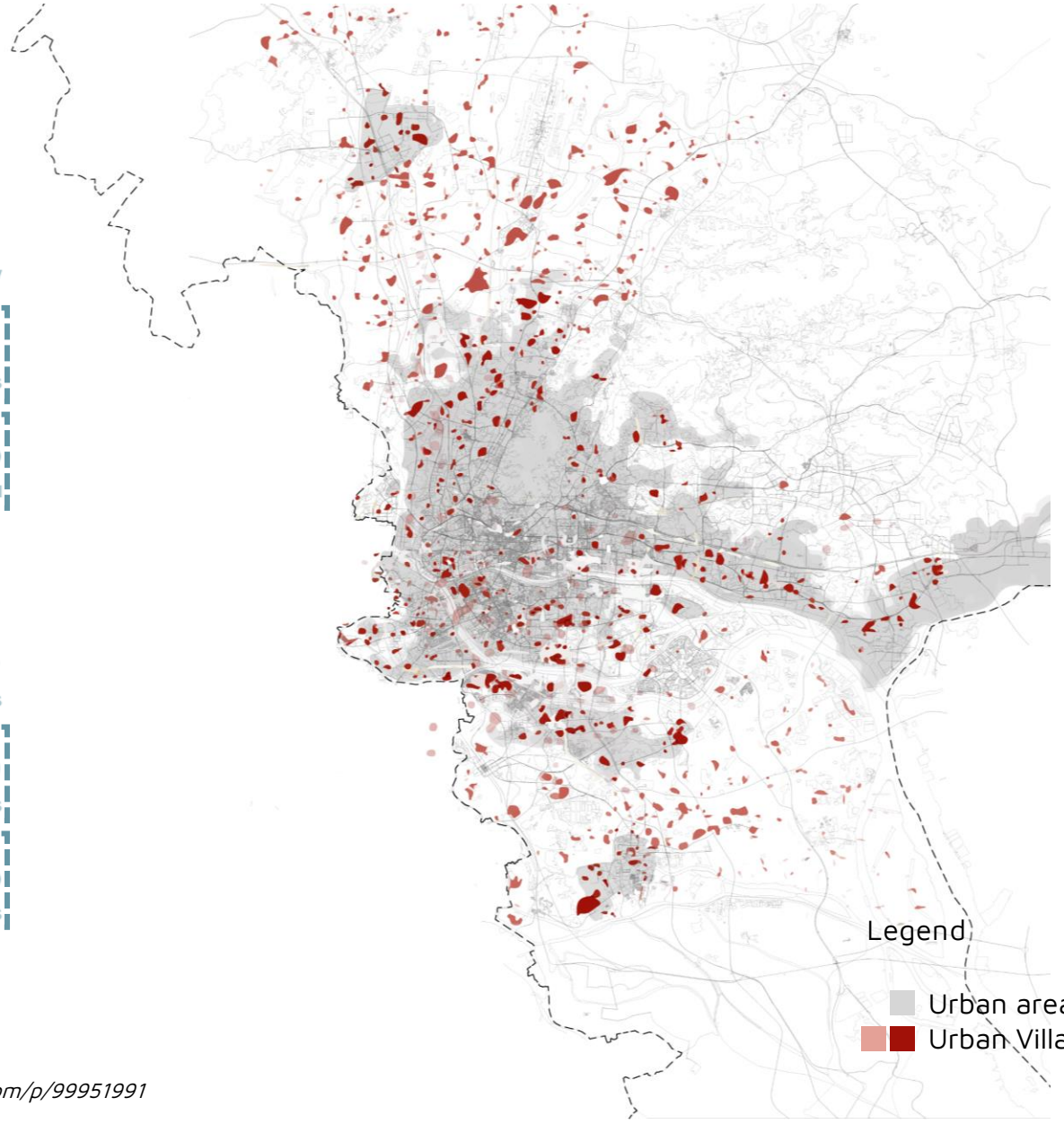
Number of villages

1343
Villages

Number of urban villages

288
Urban Villages

21.4%
of the total number of villages



Source: Data of urban villages in Guangzhou (2018). Retrieved from: https://zhuanlan.zhihu.com/p/99951991

VILLAGES IN GUANGZHOU

What are the roles of urban villages in the cities?

For migrants

Informal housing market provides affordable housing

Shops in urban villages offer services for people at a low price

Jobs offered by the shops and factories in urban villages

VILLAGES IN GUANGZHOU

What are the roles of urban villages in the cities?

For villages

Informal housing market and informal shops organized by villagers

Villagers build up schools, community center, and nursing home in the village

Villagers organize traditional events in the clan temples

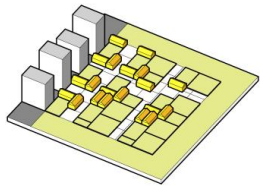
VILLAGES IN GUANGZHOU

A study on urban villages in Guangzhou

- Density
- Position
- *Hukou* state (related to social welfare)
- Land ownership & Management
- Farmland

Result:

- 4 Types
- Site selection for detailed analysis



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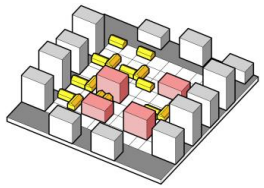

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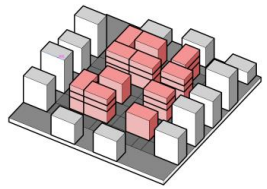

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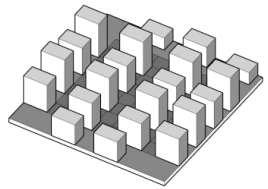

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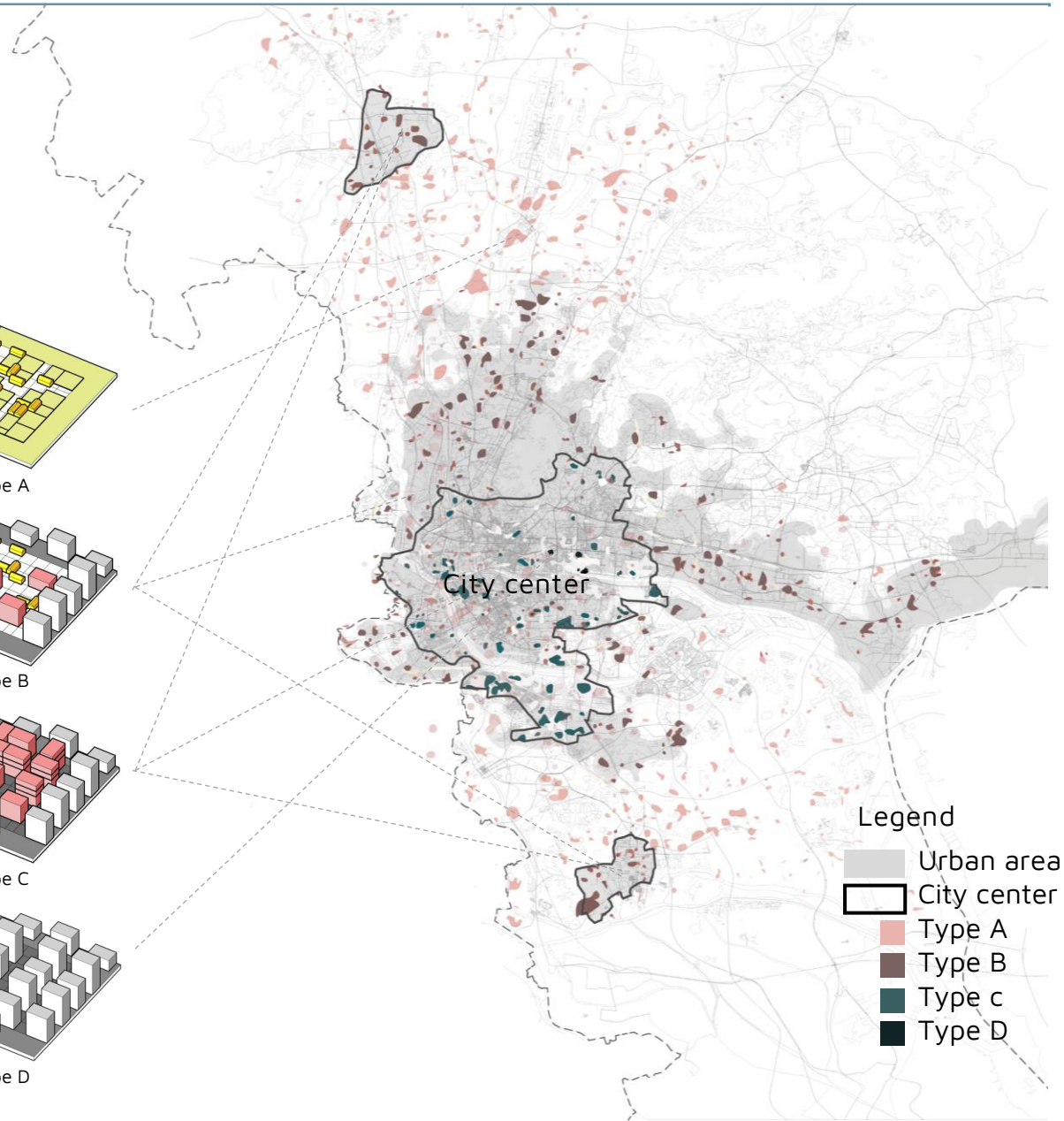

VILLAGES IN GUANGZHOU

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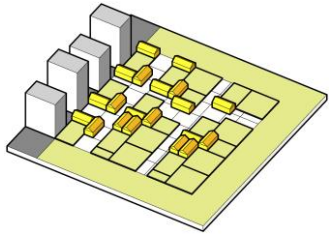
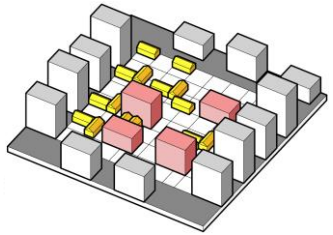


Density	
Location	Downtown / Urban / Peri-urban
Hukou	Villagers: rural Migrants: rural/urban (nonlocal)
Land ownership	Owned by village collective
Farmland	Large amounts of farmland
Management	By village committee and collective economic organization

Typical case: Dongxiu Village

Type B

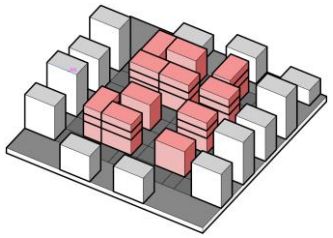


Density	
Location	Downtown / Urban / Peri-urban
Hukou	Villagers: rural Migrants: rural/urban (nonlocal)
Land ownership	Owned by village collective
Farmland	A few farmland
Management	By village committee and collective economic organization

Typical case: Suishi Village

VILLAGES IN GUANGZHOU

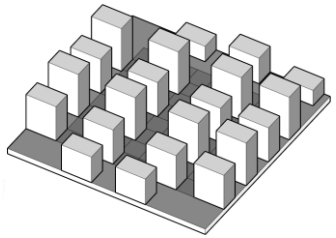
Type C



Density	
Location	Downtown Suburban Peri-urban
Hukou	Villagers: urban (local) Migrants: rural/urban (nonlocal)
Land ownership	Owned by the state
Farmland	No farmland
Management	By residents' committee and Urban village company

Typical case: Shipai Village

Type D



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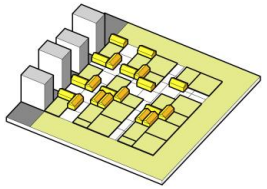
Typical case: Liede Village

VILLAGES IN GUANGZHOU



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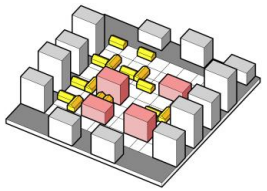

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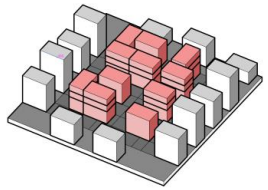

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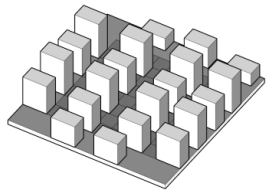

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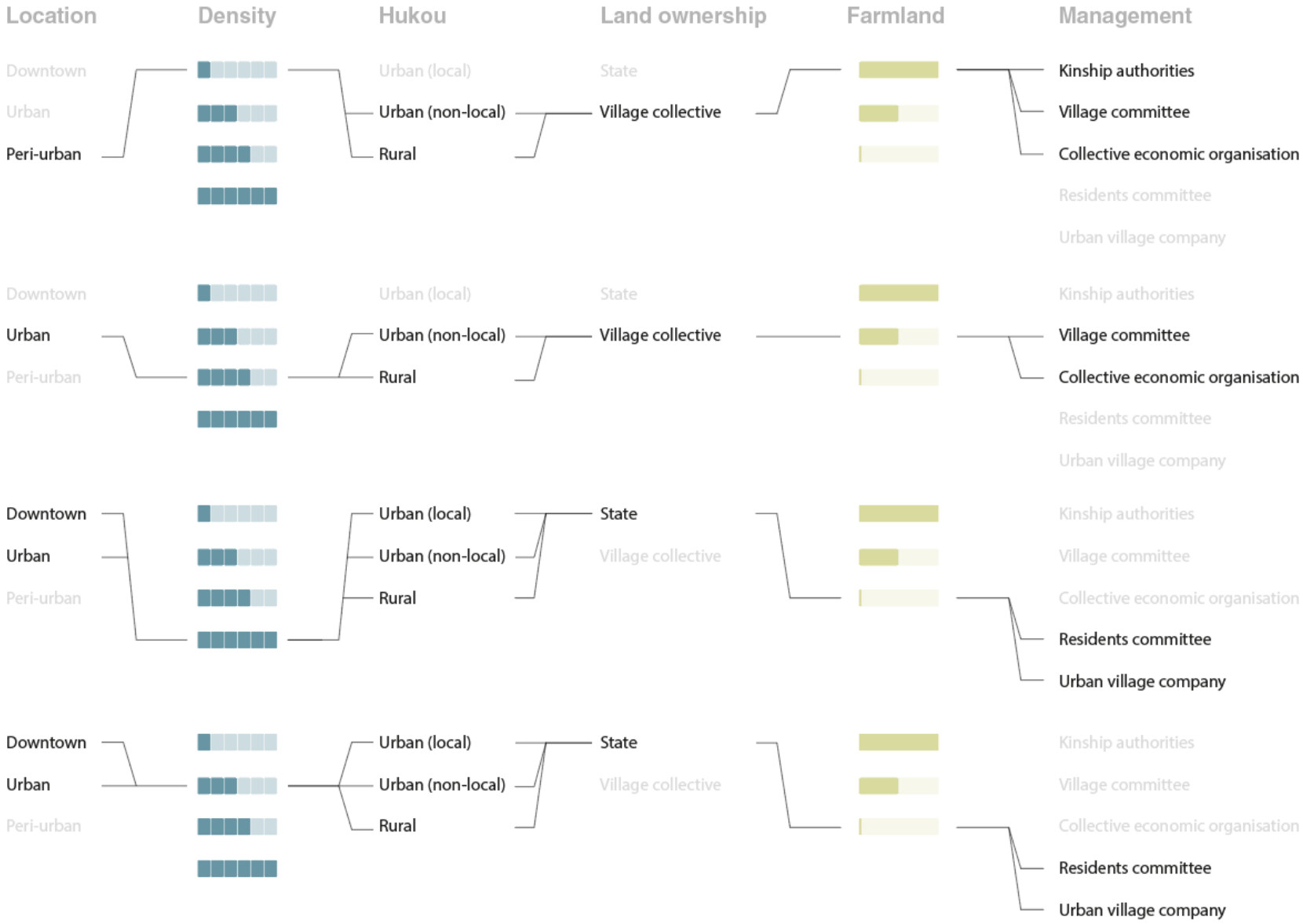

VILLAGES IN GUANGZHOU

Type A

Type B

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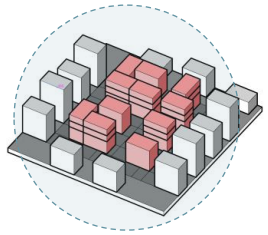

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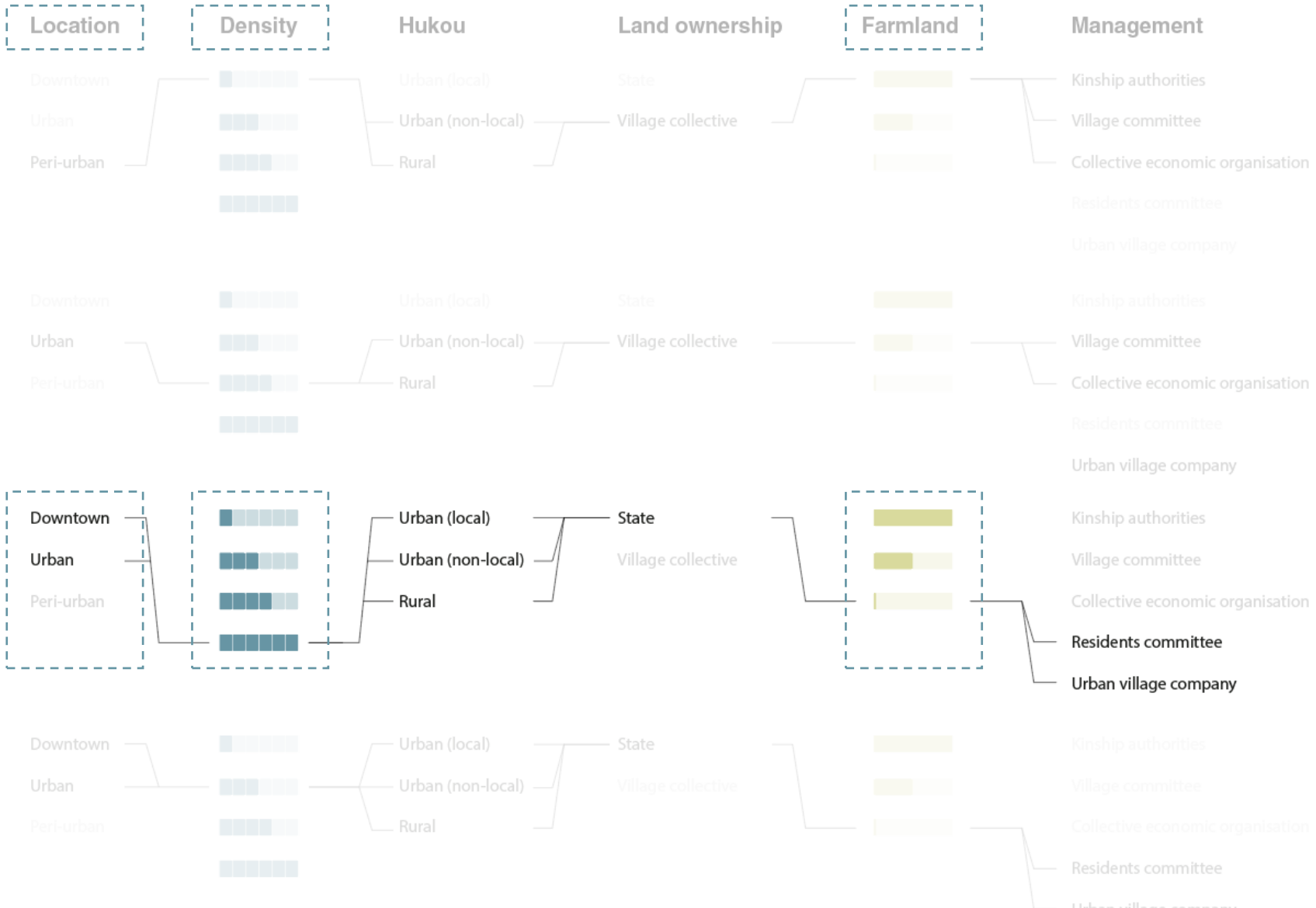
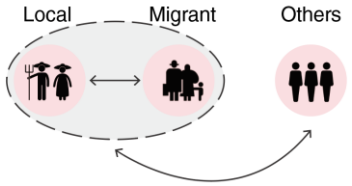


ROAD MAP

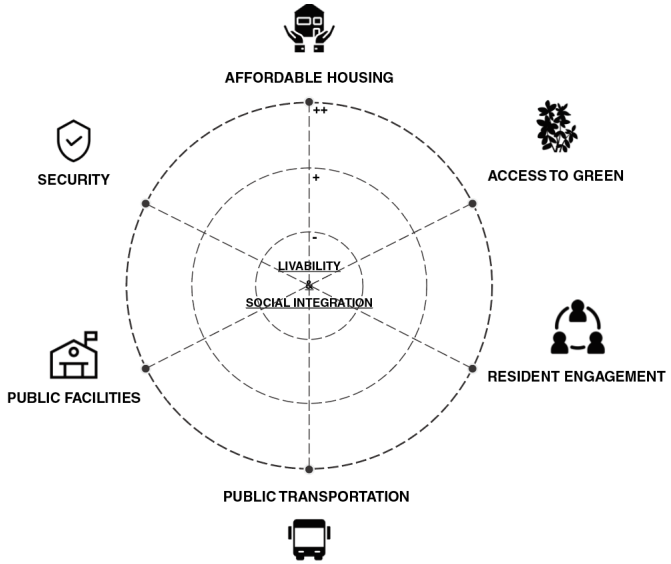
Literature review

The determinants of urban livability in Chinese cities

Social integration in informal settlements



Assessment of livability & social integration in urban villages



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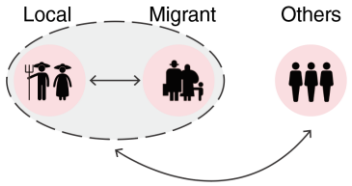
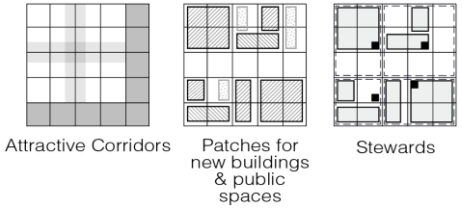


Literature review & cases

Spatial strategies and managerial strategies for upgrading informal settlements



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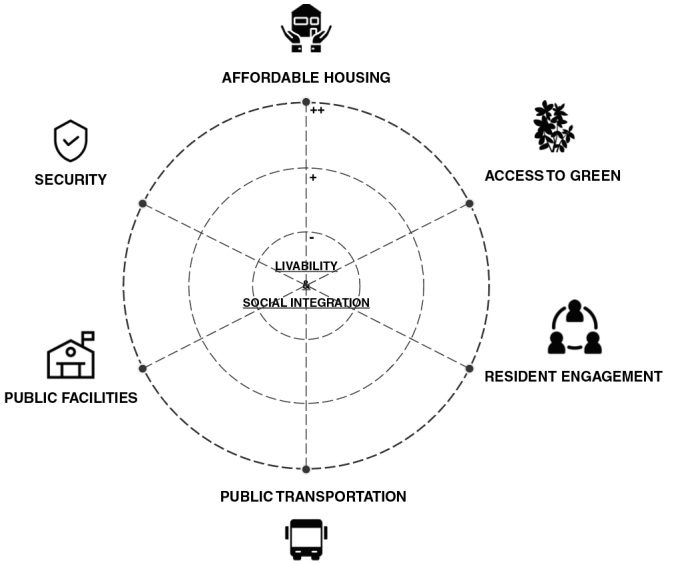
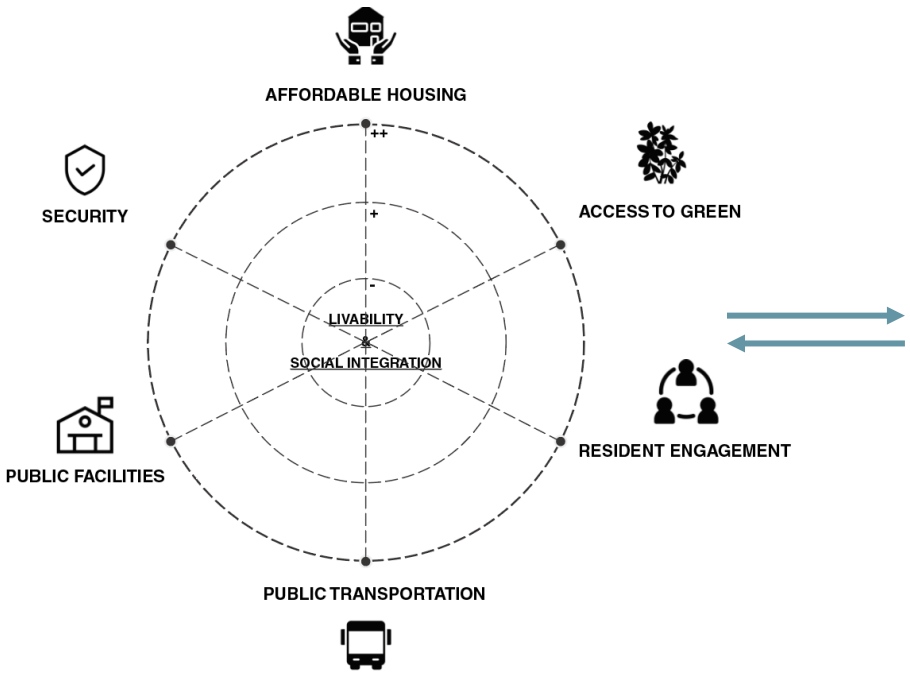
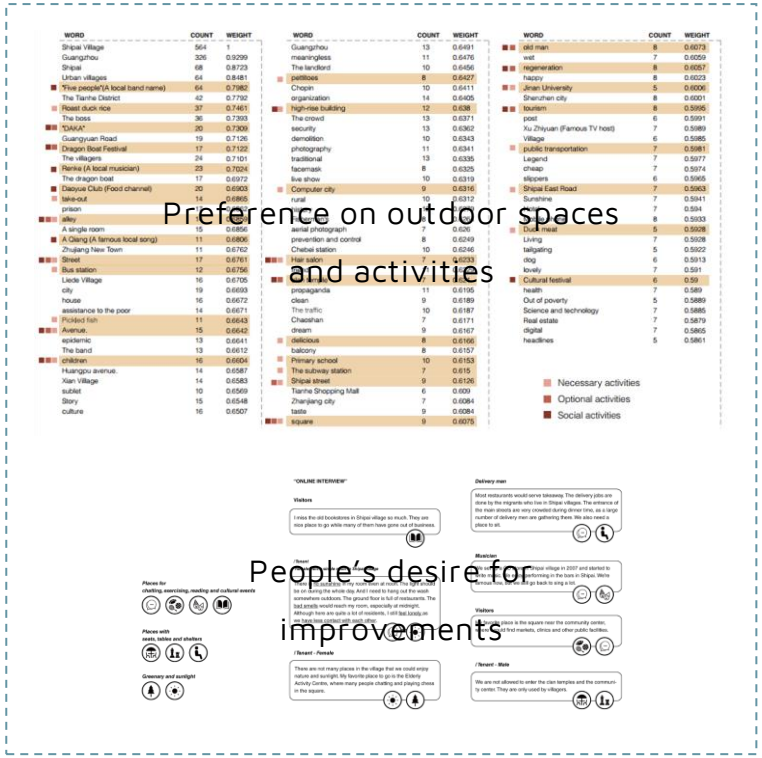


Outcomes

Vision + Strategies + Design test

METHODS





Mapping

- Assess current situation of living environment and the interaction between residents

Data mining on social media

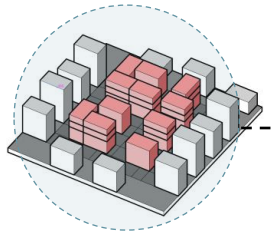
- Residents' preference on outdoor spaces and activities
- Improvements desired by people

A CASE STUDY: SHIPAI VILLAGE

Type A

Type B

Type C



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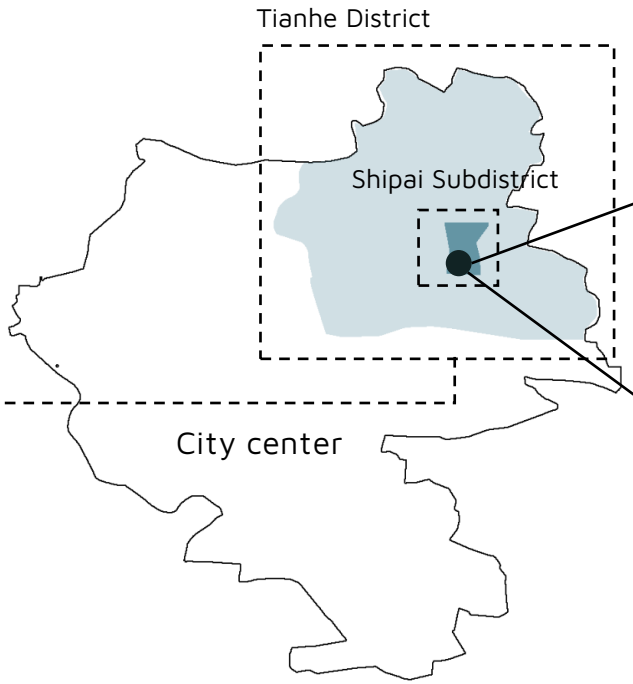
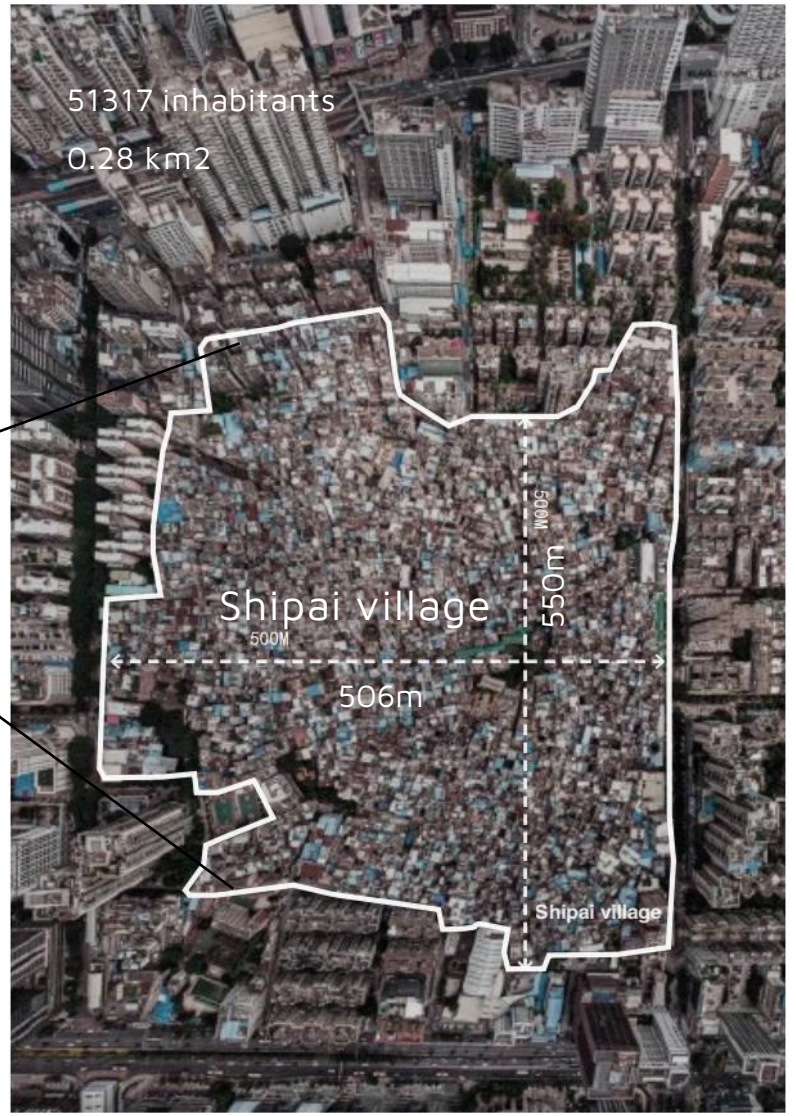
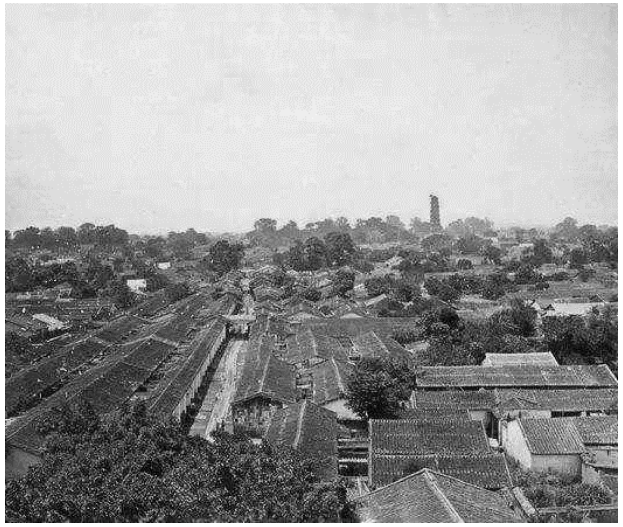




A CASE STUDY: SHIPAI VILLAGE

How did Shipai Village come into being?



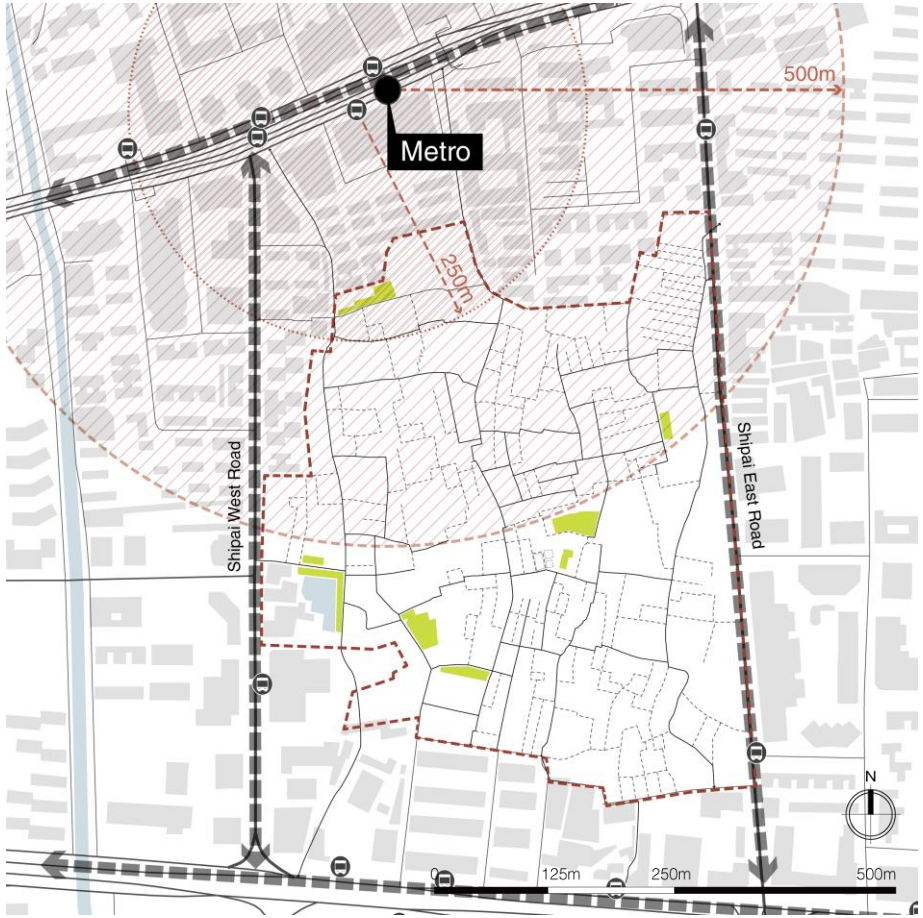
Before 1980s

Began to build sports center and railway station in 1987

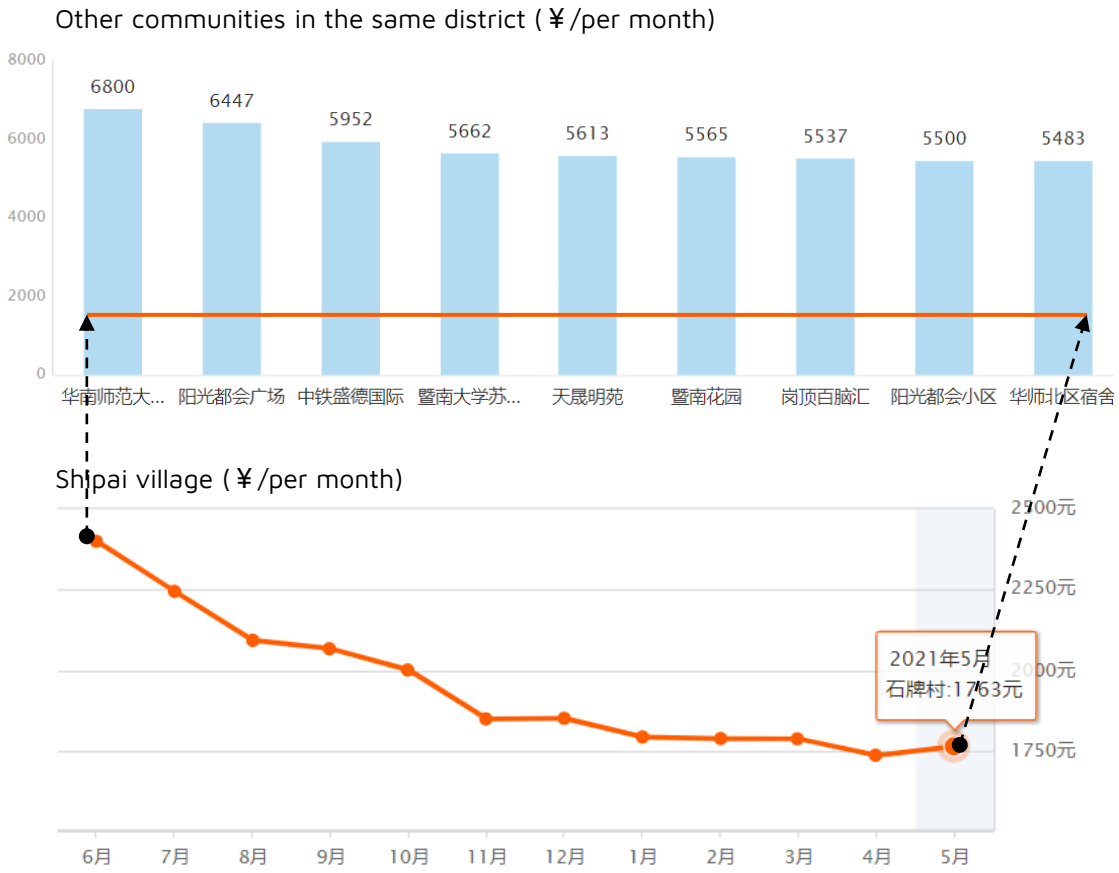
Shipai village, surrounded by high-rise buildings

SITE ANALYSIS

The access to railway station and the low rental attract migrants to move in



Railway station and bus stop

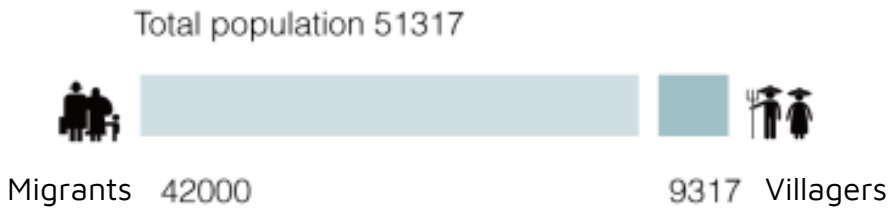


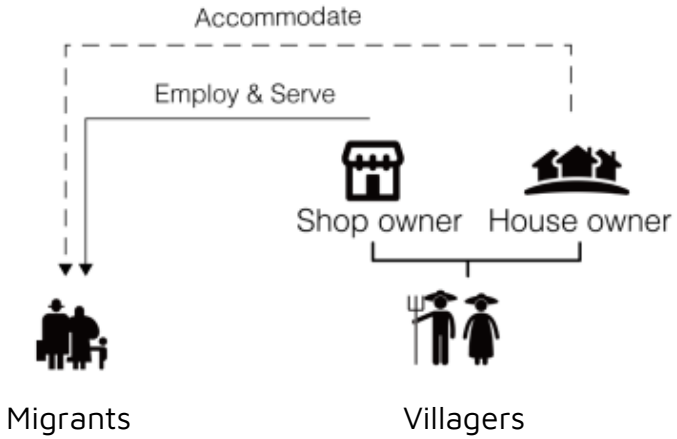
Rental (2021)

Source: Rental in Tianhe district (2021). Retrieved from: https://gz.zu.anjuke.com/xiaoqu/1269003/zujin/ershi/

SITE ANALYSIS

Relationship between villagers and Migrants

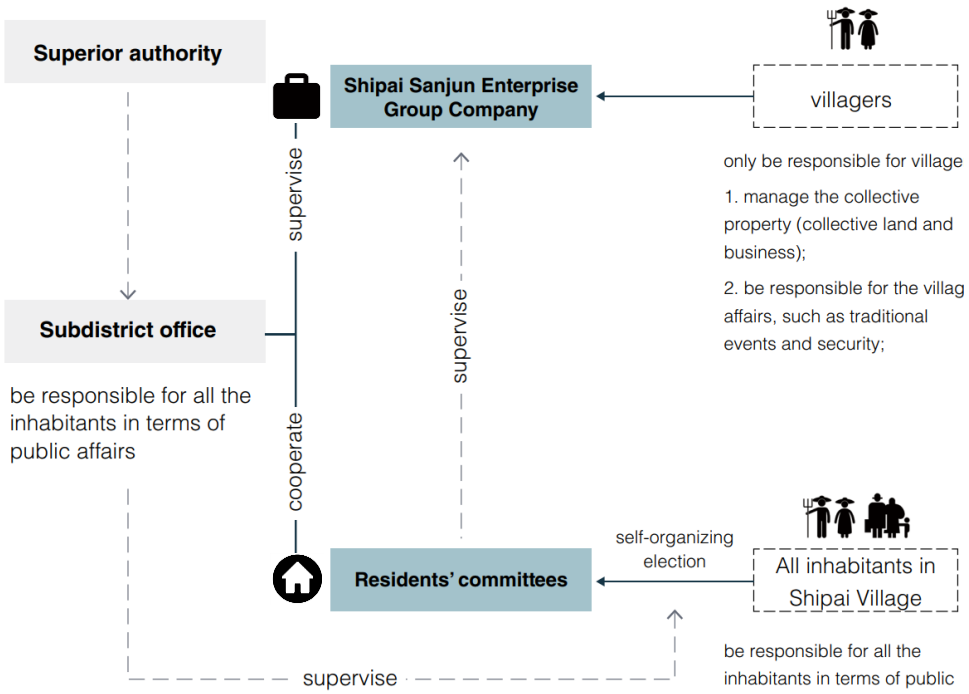


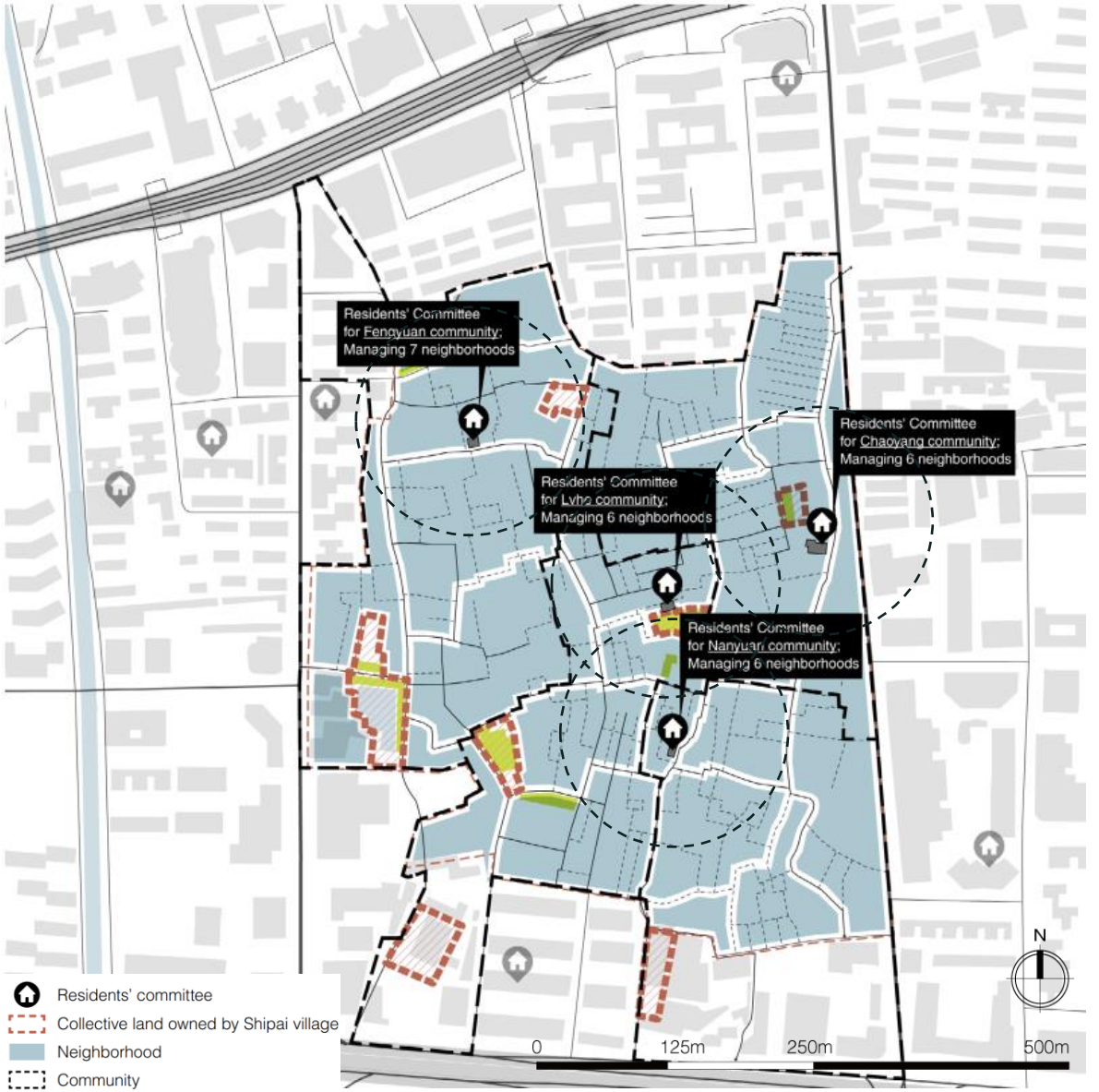


SITE ANALYSIS

Inequality in the self-management process

Management scheme in Shipai village

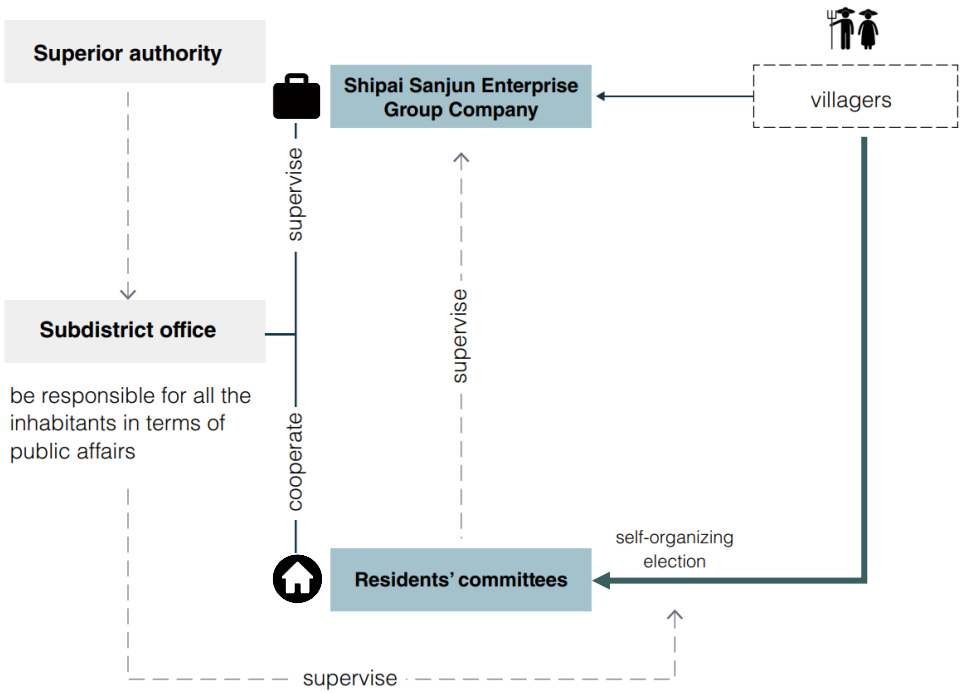


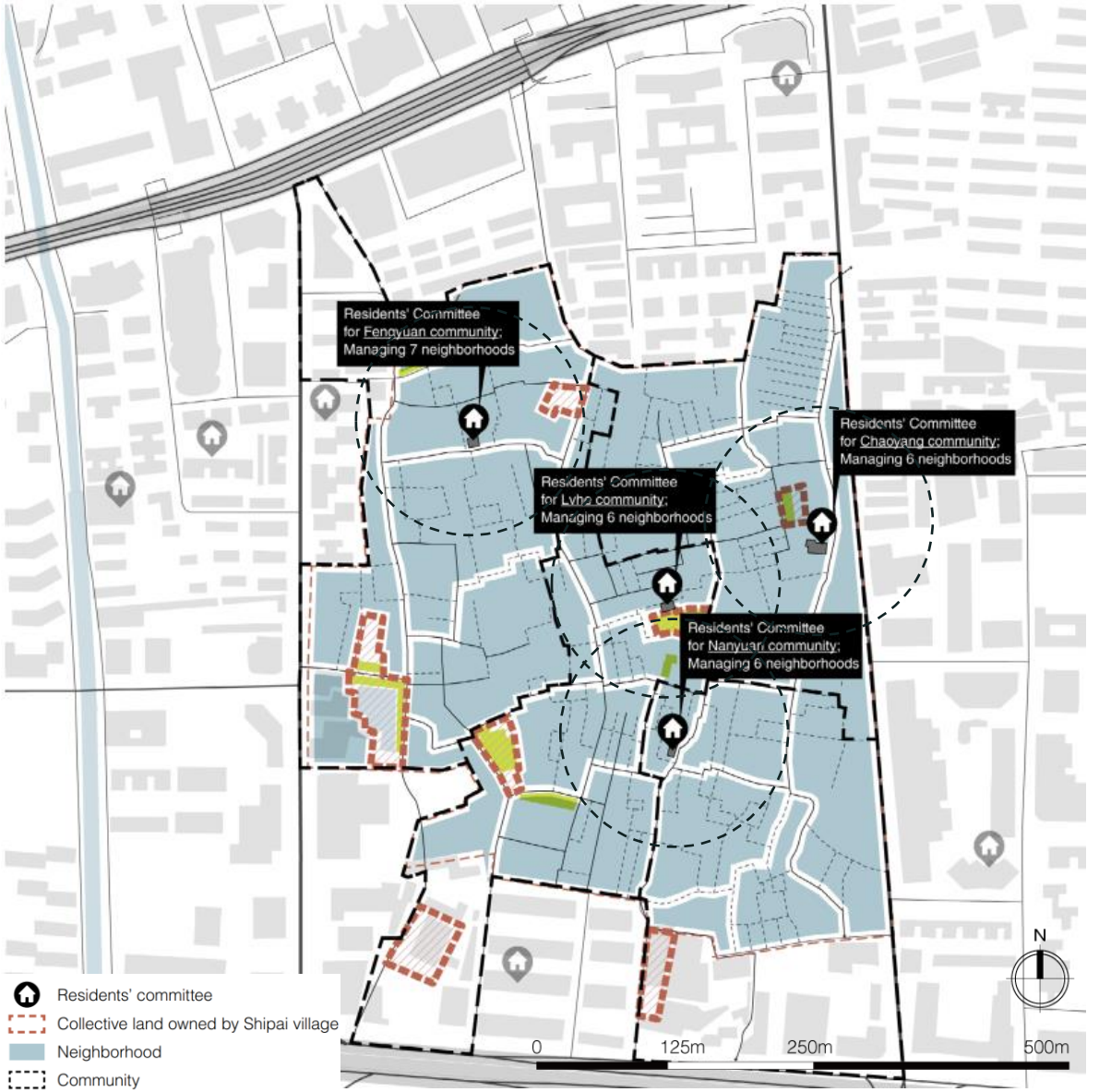


SITE ANALYSIS

Inequality in the self-management process

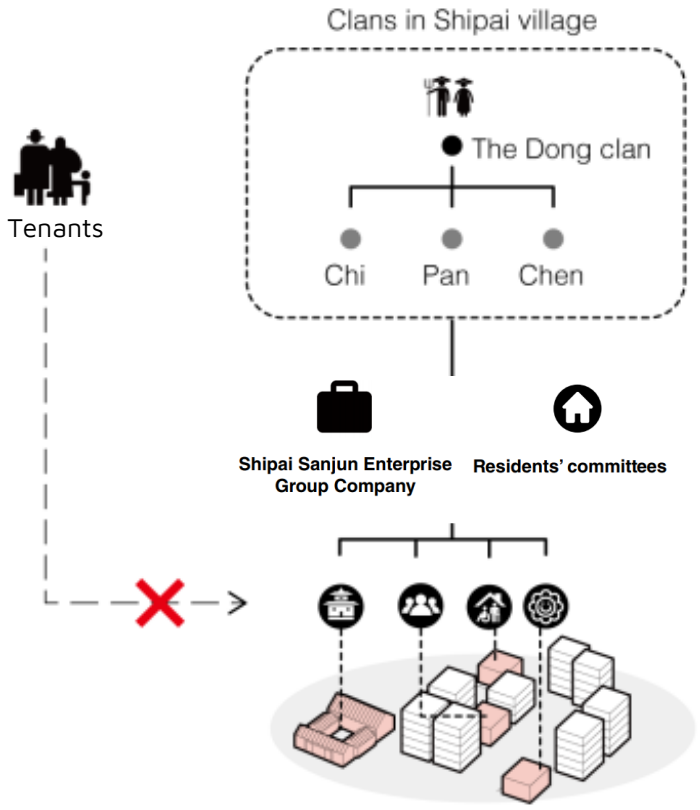
While in in practice...





SITE ANALYSIS

Social segregation caused by the clan culture



Clan temples

Places for ancestor worship

Traditional events for villagers

SITE ANALYSIS

… , which also impacts the access to public facilities

Access to public services

Formal facilities
Formal shop
Hospital
Supermarket
Clinic
Community center
Elderly activity center
School
Clan temple

Informal facilities
Informal shop
Area for street vendors

Access to green & recreation facilities

Access only by Villagers

ONLINE SURVEY

Data mining on social media platform

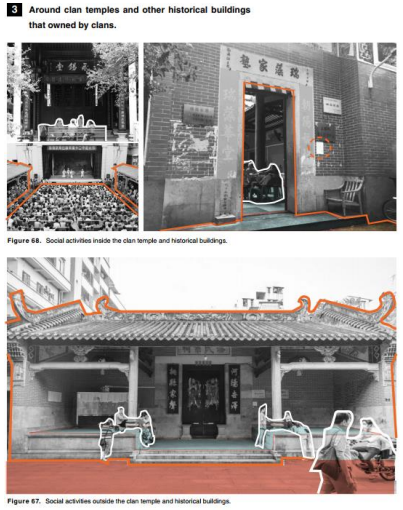
- Residents' preferences on outdoor spaces and activities
- Improvements desired by people

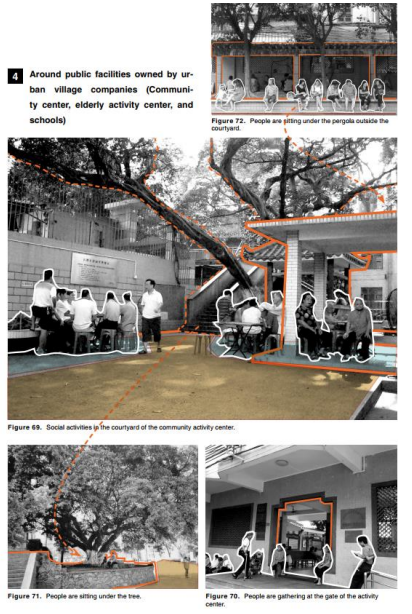
Result:

- 567 posts in total (posted from 2014 to 2021) from users.
- Comments from tourists, passers-by, and residents

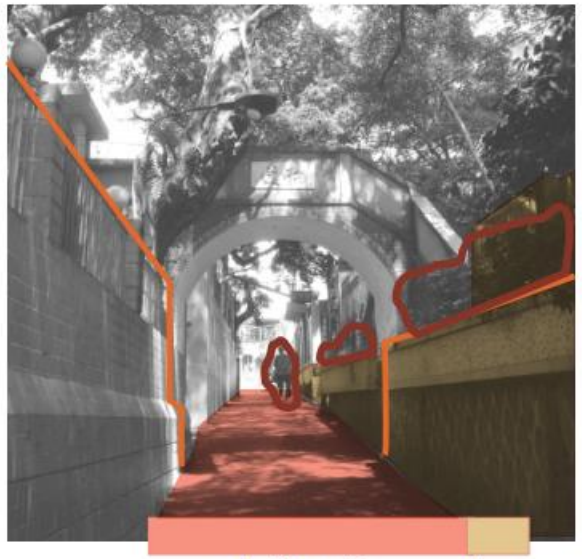
For migrants

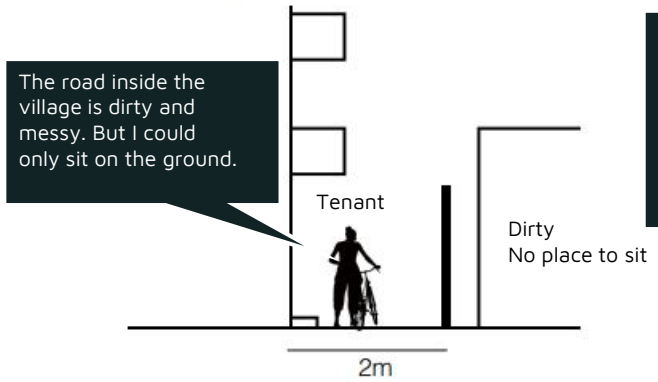
For villagers



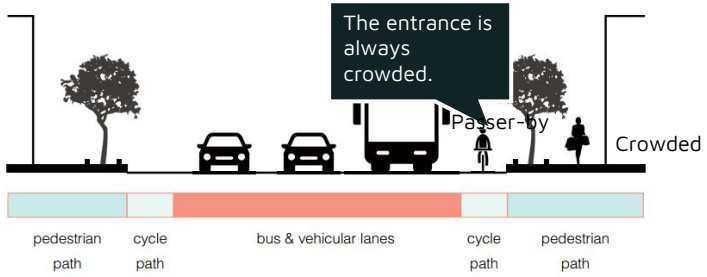


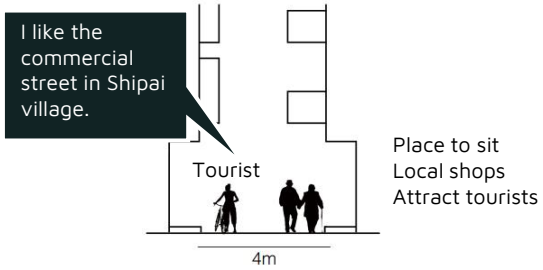
ONLINE SURVEY





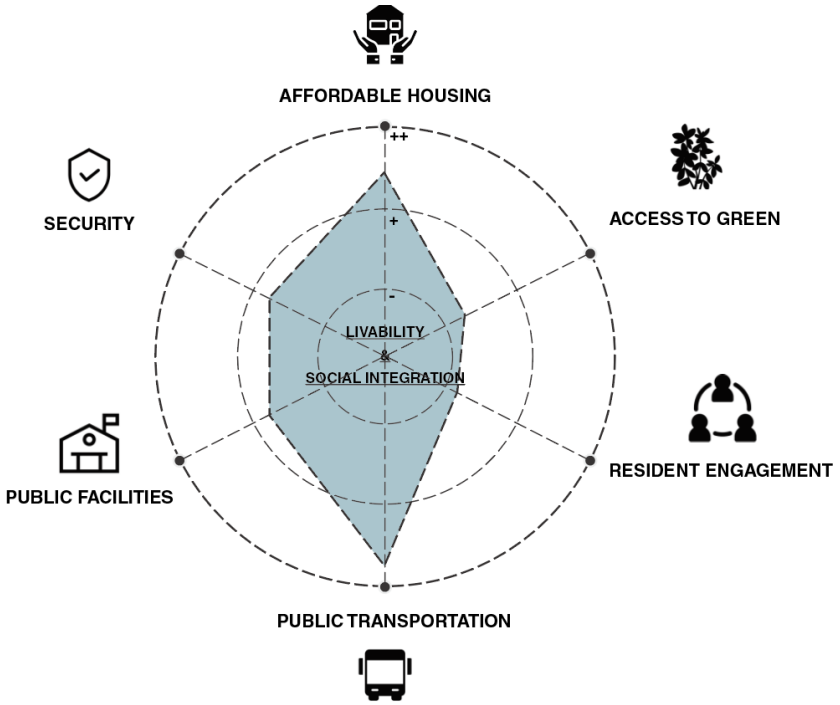
ONLINE SURVEY





SITE ANALYSIS

Assessment of current situation



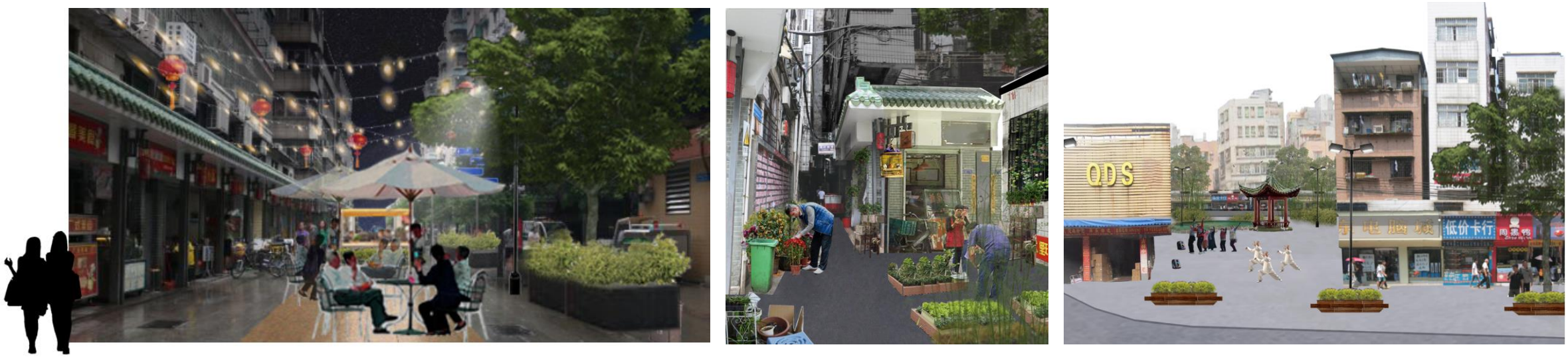
Social segregation between villagers and migrants caused by clan culture

Inequality in the access to public facilities and recreation facilities

Needs for upgrading basic infrastructure for living security

Loss of voice of migrants in self-management process

VISION



Envision a future for Shipai village…

VISION

Shipai village in the future…

Just and livable environment

VISION

Shipai village in the future…

Just and livable environment

Diverse outdoor activities

VISION

Shipai village in the future…

Just and livable environment

Diverse outdoor activities

Affordable housing

VISION

Shipai village in the future…

Just and livable environment

Diverse outdoor activities

Affordable housing

Self-management

Resident engagement

VISION

Shipai village in the future…

Just and livable environment

Diverse outdoor activities

Affordable housing

Self-management

Resident engagement

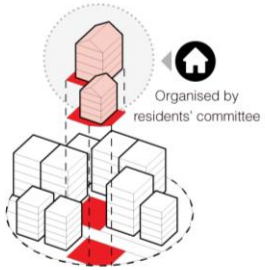
Open to city

STRATEGY

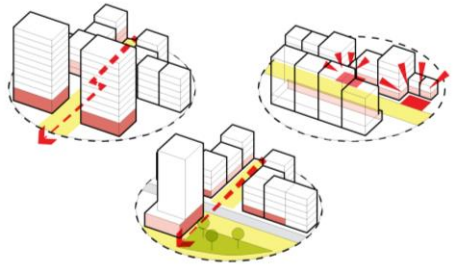
HOUSING

PROVIDE MORE AFFORDABLE HOUSES, AND BREAK THE EDGES

01 Increase affordable housing
Provide policy and financial support on increasing affordable housing on vacant lands.



02 Open the edges
Integrated with surrounding neighborhoods or break up some existing buildings on the edges to open the site up.

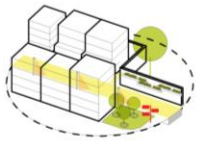


INFRASTRUCTURE

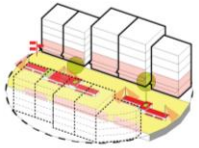
SAFE, LIVABLE, AND BOOST VIVID STREETLIFE

01 Lighten the path
Provide lighting and drains to make the path safer and cleaner.

02 Green the path
Place signal boards for passer-by and tourists to find their way easily. Put small green stuff along the path.



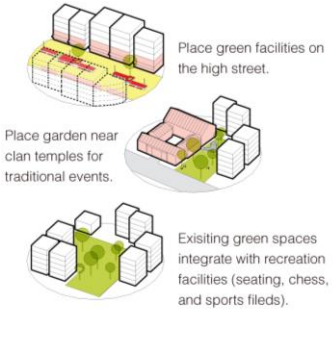
01 Be attractive and interactive
High streets would integrate with informal market, green facilities and interactive facade to make it more walkable.



GREEN

GREEN FOR EVERYONE

01 Public green spaces
Integrated public green spaces and recreation facilities with public facilities and commerical streets.



02 Planting activity and semi-public green spaces
Encourage residents to use vacant lands, courtyards, and house roofs to make semi-public green spaces (community farm, pocket park and roof garden) by their own.

PUBLIC SPACE

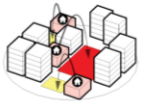
CREATE DIVERSE OUTDOOR SPACES, AND GIVE GUIDELINES FOR SELF-ORGANIZED

A toolbox for public spaces is given. For each tool, it gives discription on the level (for what range are the tool used), main users, main functions and recommadation for where it should be placed.

Public space for Shipai subdistrict

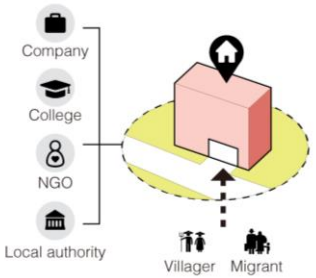
Public spaces for neighborhood

Public spaces for specific groups



MANAGEMENT

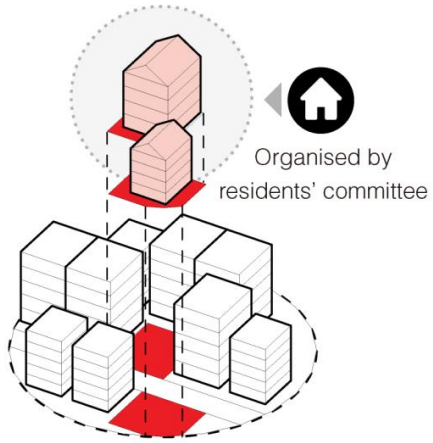
Residents' committee would work as an intermediary to contact with local authority, companies and other institutions for technical and financial supports. A "Tenant Office" will be established in the committee, which encourage tenants to participate in public affairs.



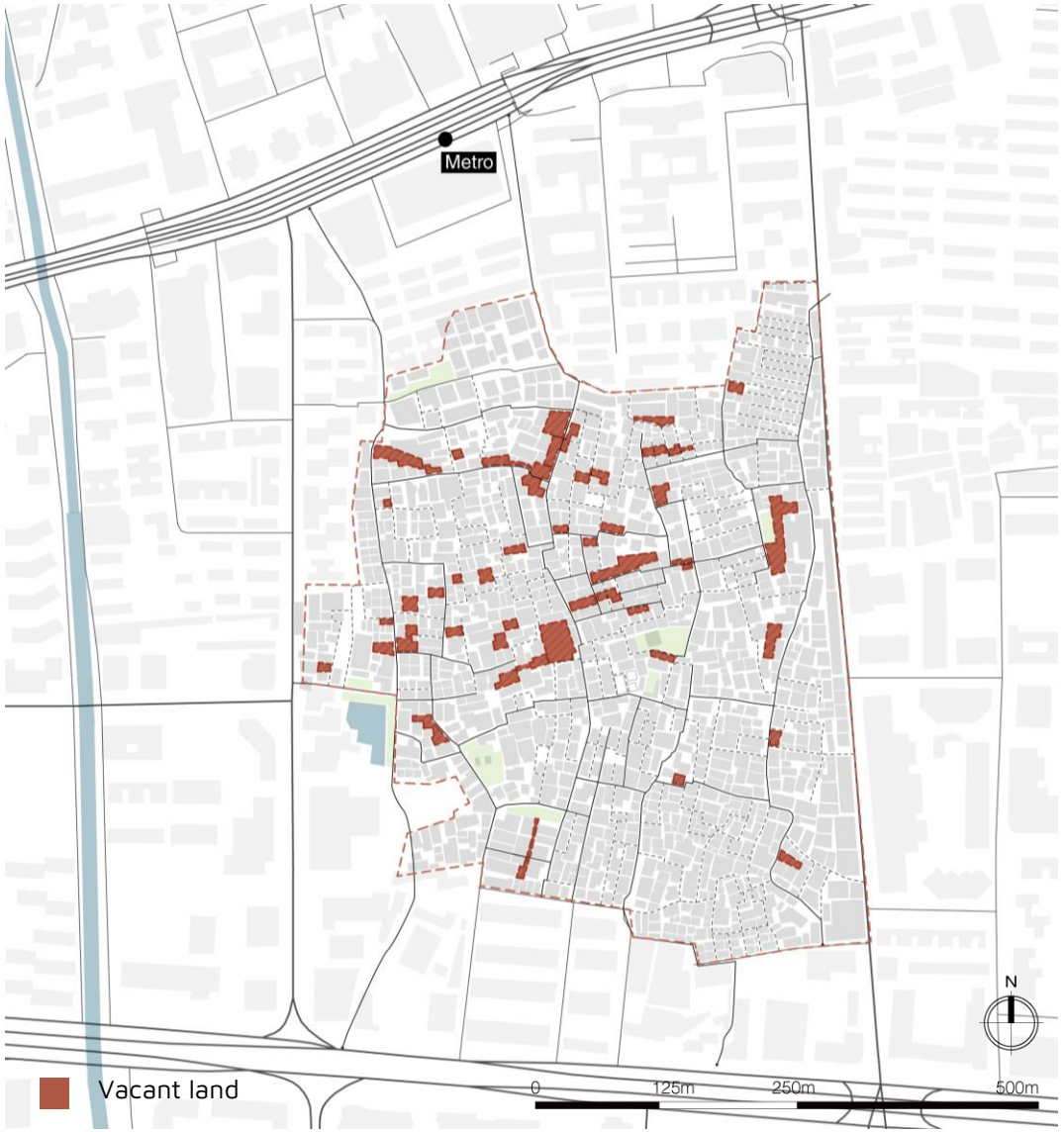
STRATEGY

Housing

Increase affordable housing



"Long-term rental apartment"



<u>Policy support & Financial support</u>:

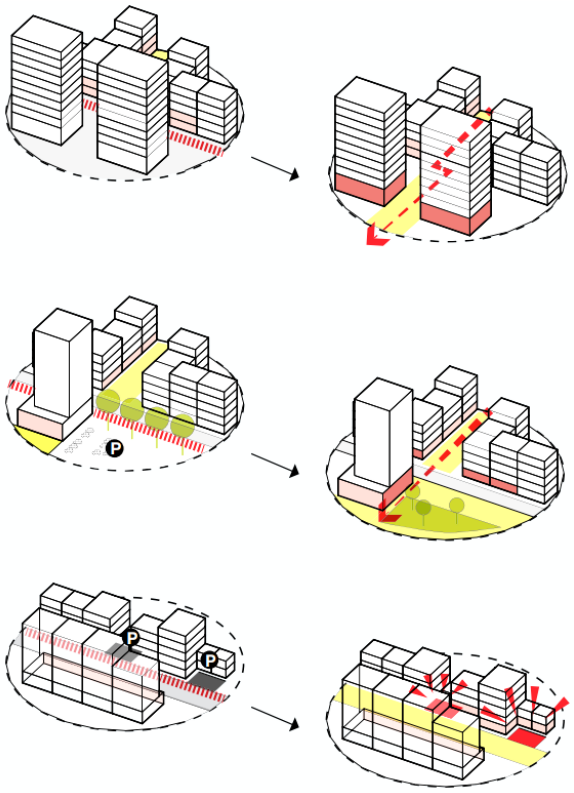
"Long-term rentals" policy in the Guangzhou province;

Residents' Committees are responsible for management and maintenance. Migrants and low-income group have priority on applying for these new apartments.

STRATEGY

Housing

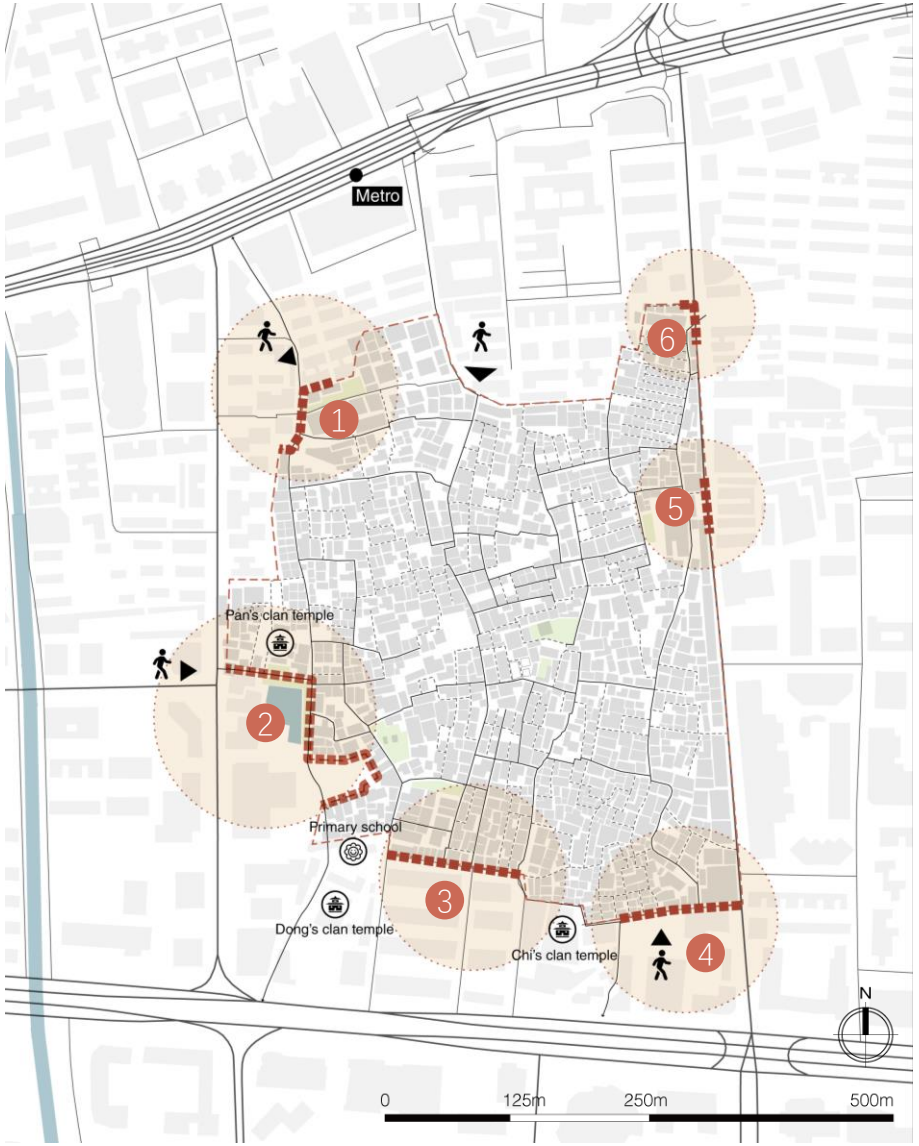
Open the edges



(1) expand the commercial street to the surrounding neighborhoods by reusing the podium and abandoned buildings. 1 2 3

(2) redesign the in-between spaces to connect with surrounding commercial areas. 1 4

(3) remove parking areas along the commercial street and on the main entrance; replace them with sqaures or pocket park. 5 6



Infrastructure

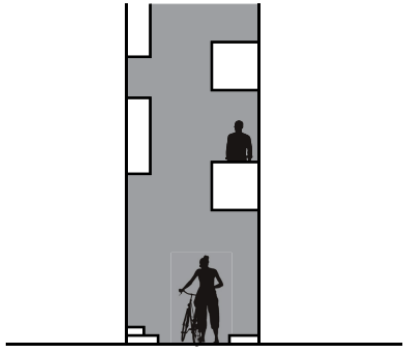
Be safe, livable, and boost street life

- Lighting
- Sewage system
- Recreation facilities
- Greenery

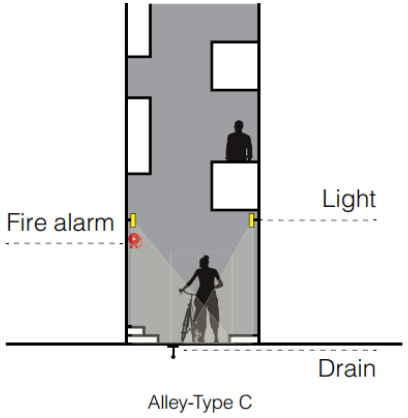
STRATEGY

Step 1

BEFORE

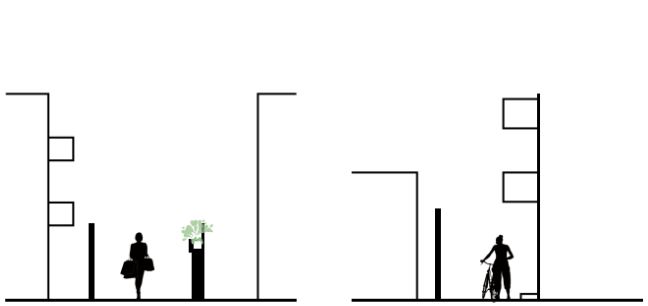


AFTER

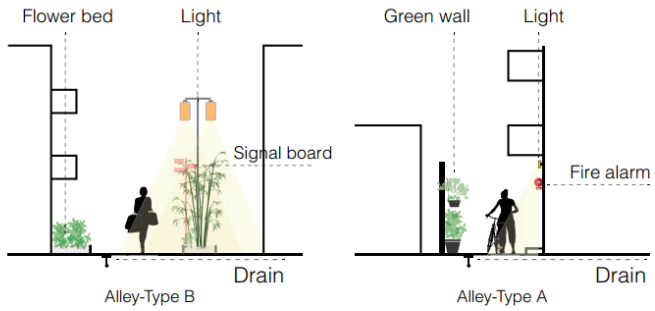


Step 2

BEFORE



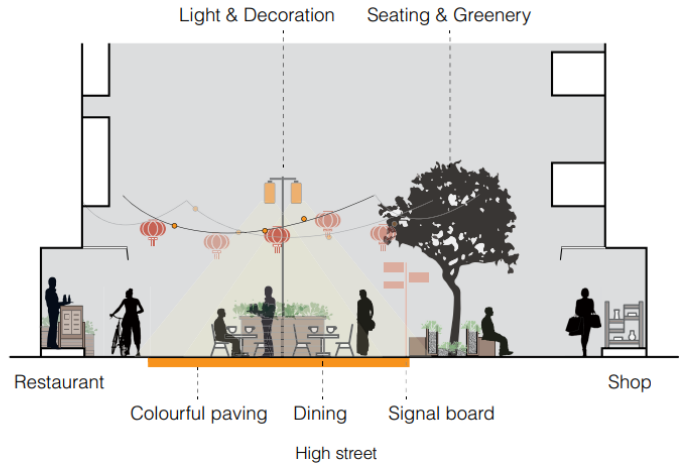
AFTER



Step 3

BEFORE

AFTER



STRATEGY

Green

- Public green spaces:

Negotiate with locals to open the "village owned" green spaces.

- Planting activities on semi-public spaces

Encourage residents to use vacant lands, courtyards, and house roofs to make community farms, pocket parks and roof gardens.

Public space

Toolbox for Shipai village

- For whom?
- For what activities?
- Where should it be placed?

Based on the comments from different social groups

Places for chatting, exercising, reading and cultural events

Places with seats, tables and shelters

Greenary and sunlight

Visitors

I miss the old bookstores in Shipai village so much. They are nice place to go while many of them have gone out of business.

/Tenant

Female, rent a single room in Shipai Village

There is no sunshine in my room even at noon. The light should be on during the whole day. And I need to hang out the wash somewhere outdoors. The ground floor is full of restaurants. The bad smells would reach my room, especially at midnight. Although here are quite a lot of residents, I still feel lonely as we have less contact with each other.

/ Tenant - Female

There are not many places in the village that we could enjoy nature and sunlight. My favorite place to go is the Elderly Activity Centre, where many people chatting and playing chess in the square.

Delivery man

Most restaurants would serve takeaway. The delivery jobs are done by the migrants who live in Shipai villages. The entrance of the main streets are very crowded during dinner time, as a large number of delivery men are gathering there. We also need a place to sit.

Musician

We set up a CD store in Shipai village in 2007 and started to write music. We enjoy performing in the bars in Shipai. We're famous now, but we still go back to sing a lot.

Visitors

My favorite place is the square near the community center, where I could find markets, clinics and other public facilities.

/ Tenant - Male

We are not allowed to enter the clan temples and the community center. They are only used by villagers.

Source: Part of the comments from social media, https://weibo.com/

STRATEGY

Public space

Toolbox for Shipai village

- For whom?
- For what activities?
- Where should it be placed?

Users

Inhabitant

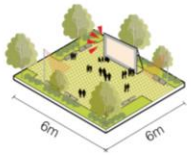
Tourist & Passers-by

Activities

chatting, exercise, party, cultural events, sitting, outdoor games, worship, garden, shopping

FOR SHIPAI SUBDISCTRICT

URBAN SQUARE

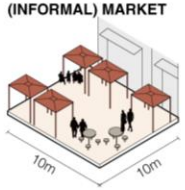


User: All

Function

This facility should be in a place with high accessibility and should be integrated with existing community center or (new) cultural buildings (library, museum, theatre etc.).

(INFORMAL) MARKET

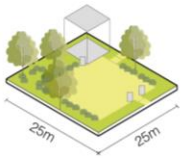


User: All

Function

An important eating and shopping place for all social groups. It should be placed on main squares or high streets. Provides shopping events during holidays.

GARDEN



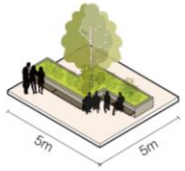
User: Traditional festival - Locals; Other time - All

Function

This tool provides shade, seats and places for ancestor worship. It needs to be integrated with clan temples or other religious facilities. The design should base on local religious culture.

FOR VILLAGE

SEATING AREA 1

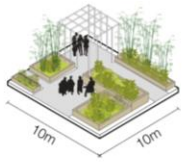


User

Function

It could be placed anywhere along high streets and better to be integrated with shops with high social interaction (bookshop, tea house etc). It provides shade, seats and small green stuffs.

ROOF GARDEN



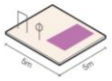
User

Function

This tool can be placed on residential buildings to provide semi-private green spaces for gardening. It can also be placed on public buildings, integrated with chessing area and seats.

PLAYGROUND 1

Type A Single Pingpong



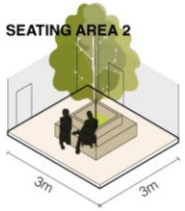
Type B Multi-function

User

Function

A place for all social groups to do sports. Located in places with high accessibility or vacant lands surrounded by buildings. It can be integrated with the gargen, park or square.

SEATING AREA 2

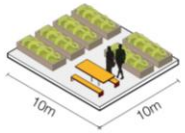


User

Function

Located in streets (width>m) or integrated with other tools (square, playground, garden ect.). A small seating area provides shade and seats for 2-4 people.

COMMUNITY FARM

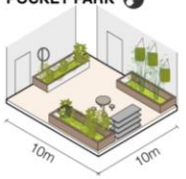


User

Function

A place for all residents! This tool can be placed in community center or on top of public buildings. It provides green spaces for gardening and party.

POCKET PARK



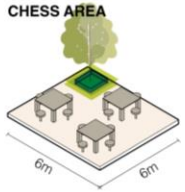
User

Function

A small green space in between buildings to provide shade and sitting place. This tool can be placed on vacant lands within the residential blocks.

FOR SPECIFIC GROUPS

CHESS AREA

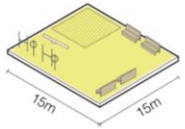


User

Function

Popular place for retired people. It can be placed near nursing home or community center. It can combine with other tools (park, playgroud, square, etc.)

PLAYGROUND 2



User

Function

A place for children. It should be placed near kindergarten, primary and middle school; in neighborhoods with more children. It should be in a safe and quiet area where parents can easily watch the children.

Activities

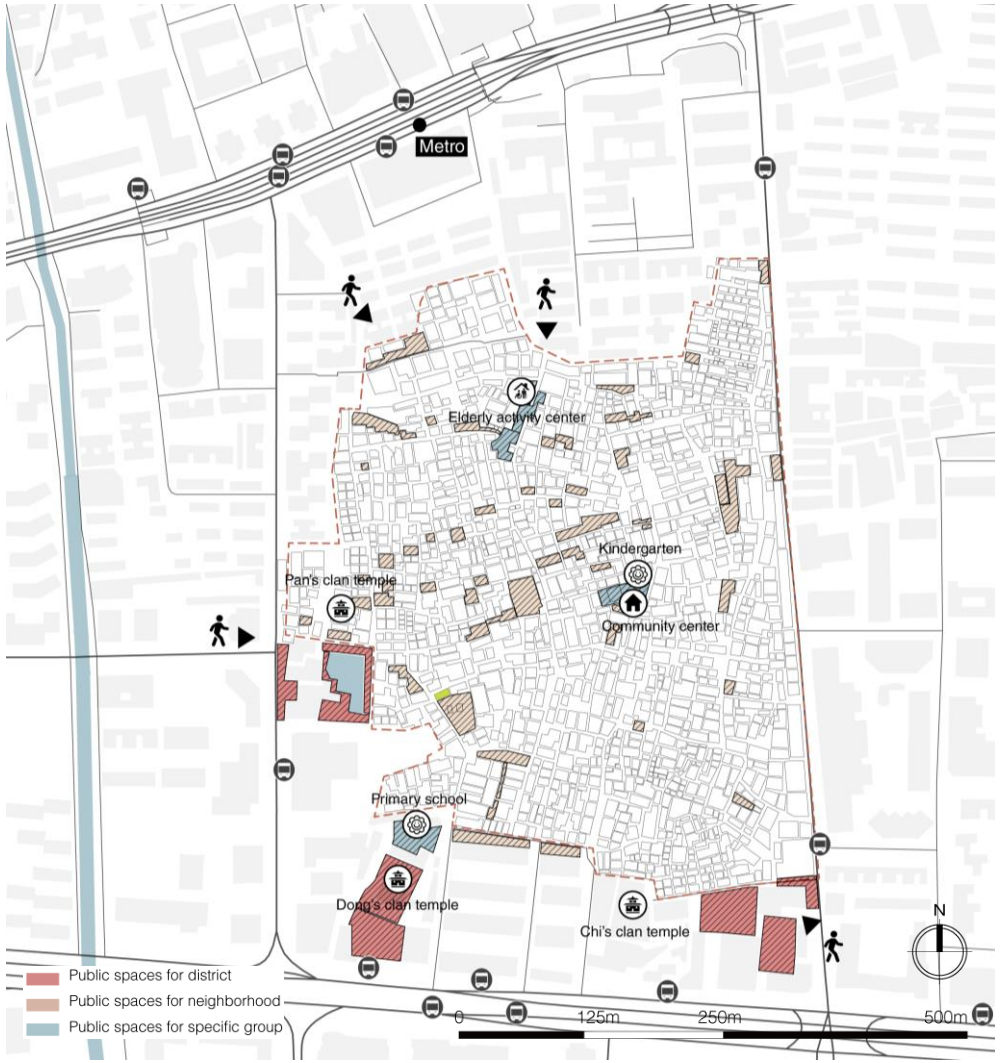
chatting, exercise, party, cultural events, sitting, outdoor games, worship, garden, shopping

Users

*This tool is organised and maintained by (local) residents.

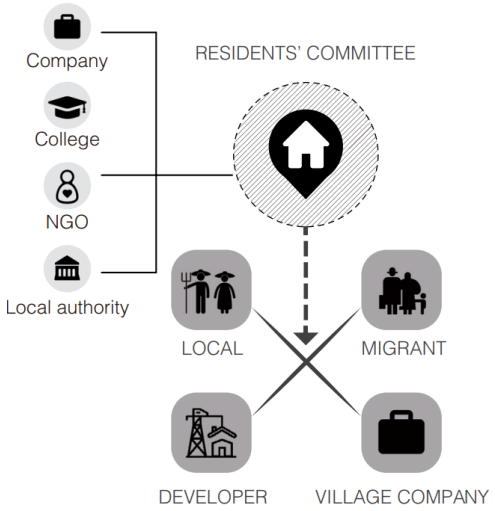
Public space

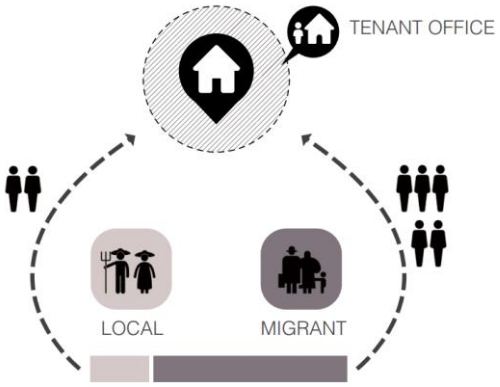
Strategic plan

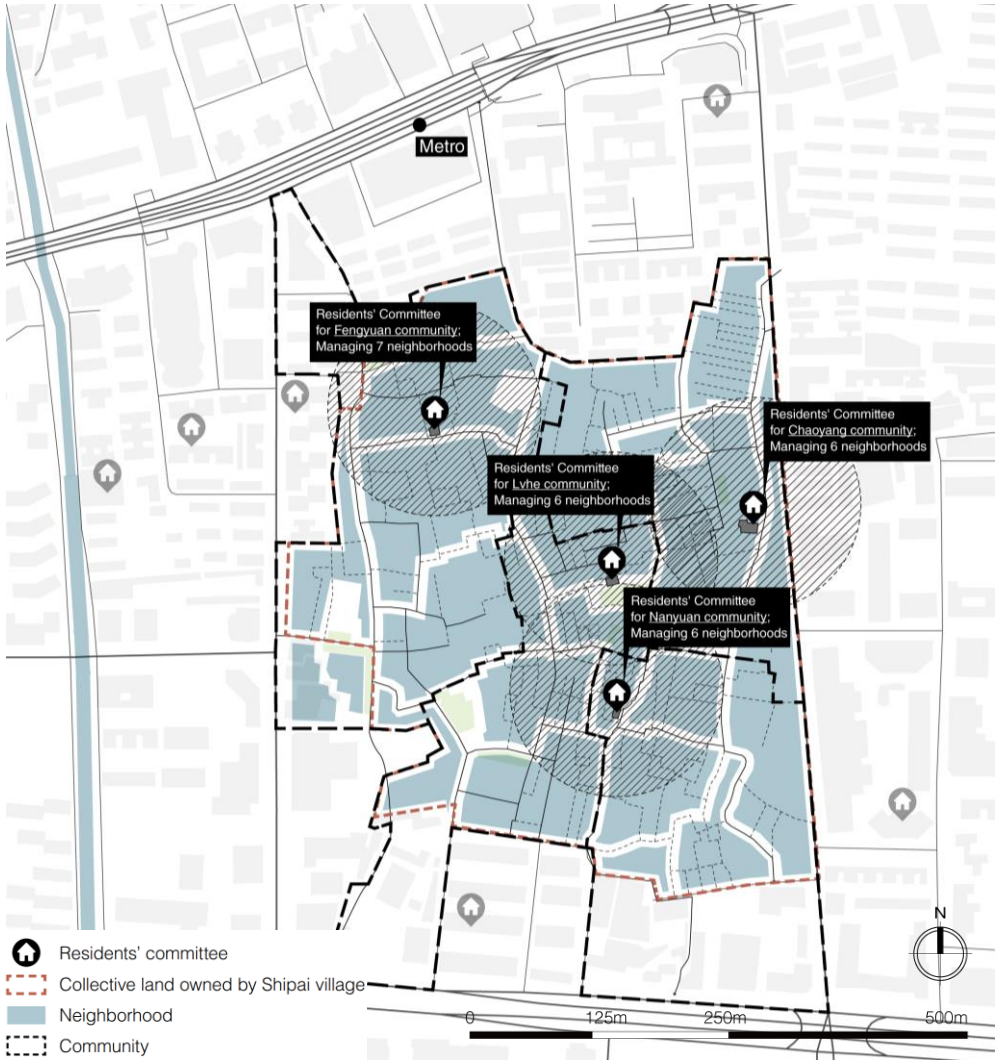


STRATEGY

Management







Residents' committee

work as an intermediary to contact with local authority, companies and other institutions for technical and financial supports.

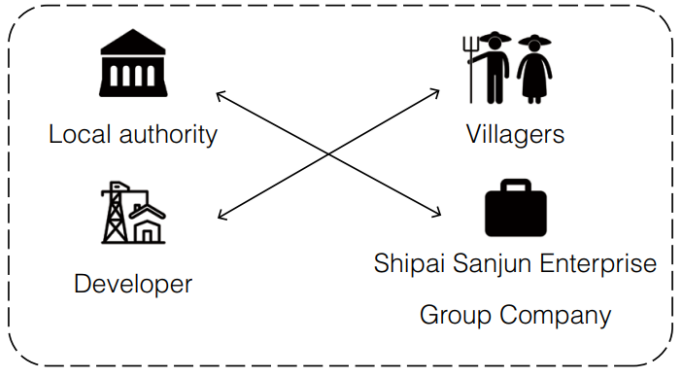
Tenants' office

will be established in the committee, which encourage tenants to participate in community management.

STRATEGY

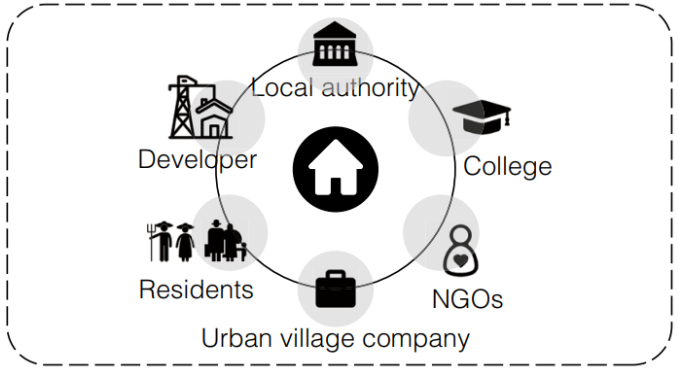
Management

Before

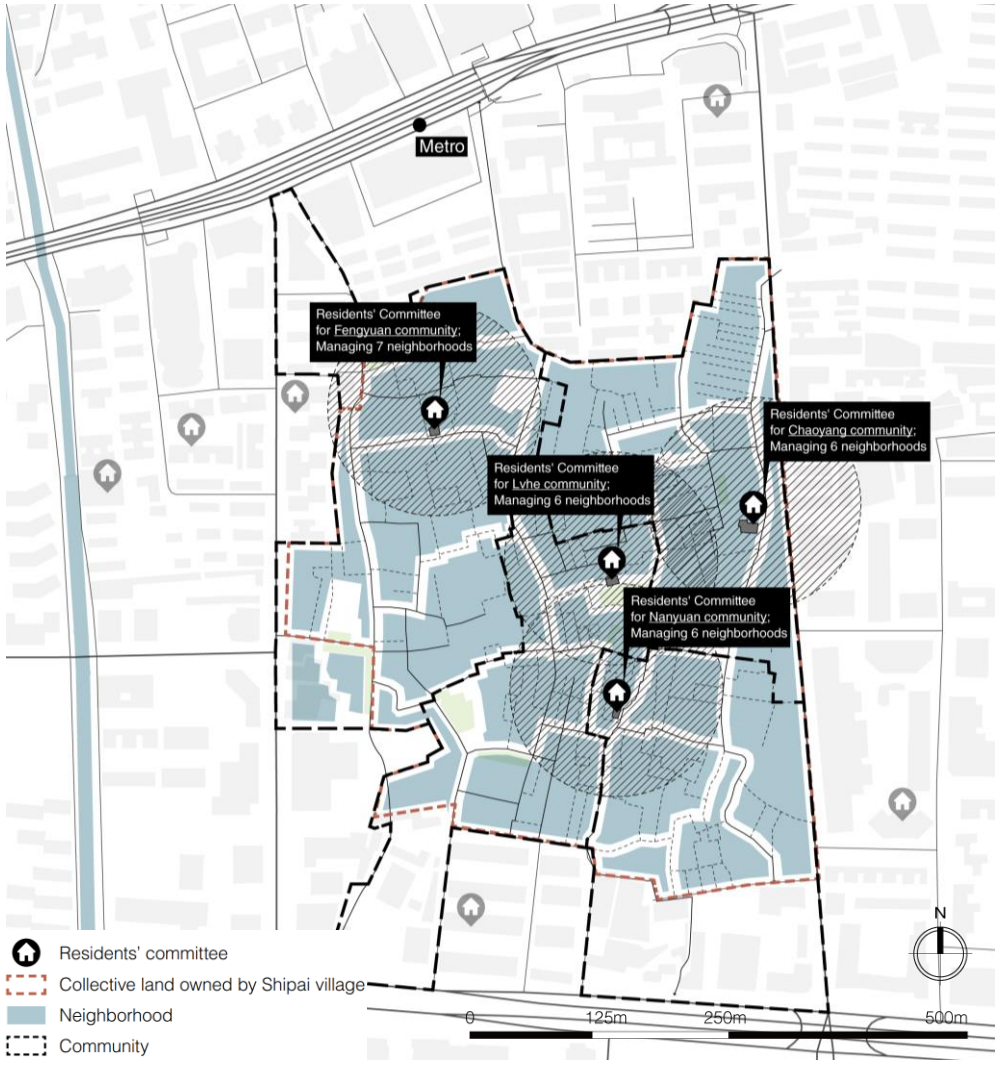


Market-driven

After



Cooperative



STEPS TOWARD VISION

How to implement the strategies?

STEPS TOWARD VISION

Phase 1 ----------> Phase 2 ----------> Phase 3

2025 2030 2040

STEPS TOWARD VISION

Phase 1 ----------> Phase 2 ----------> Phase 3

2025 2030 2040

New affordable housing
Path upgrading

Improve living security and provide more affordable housing

Tenants' office
Path upgrading
Public space

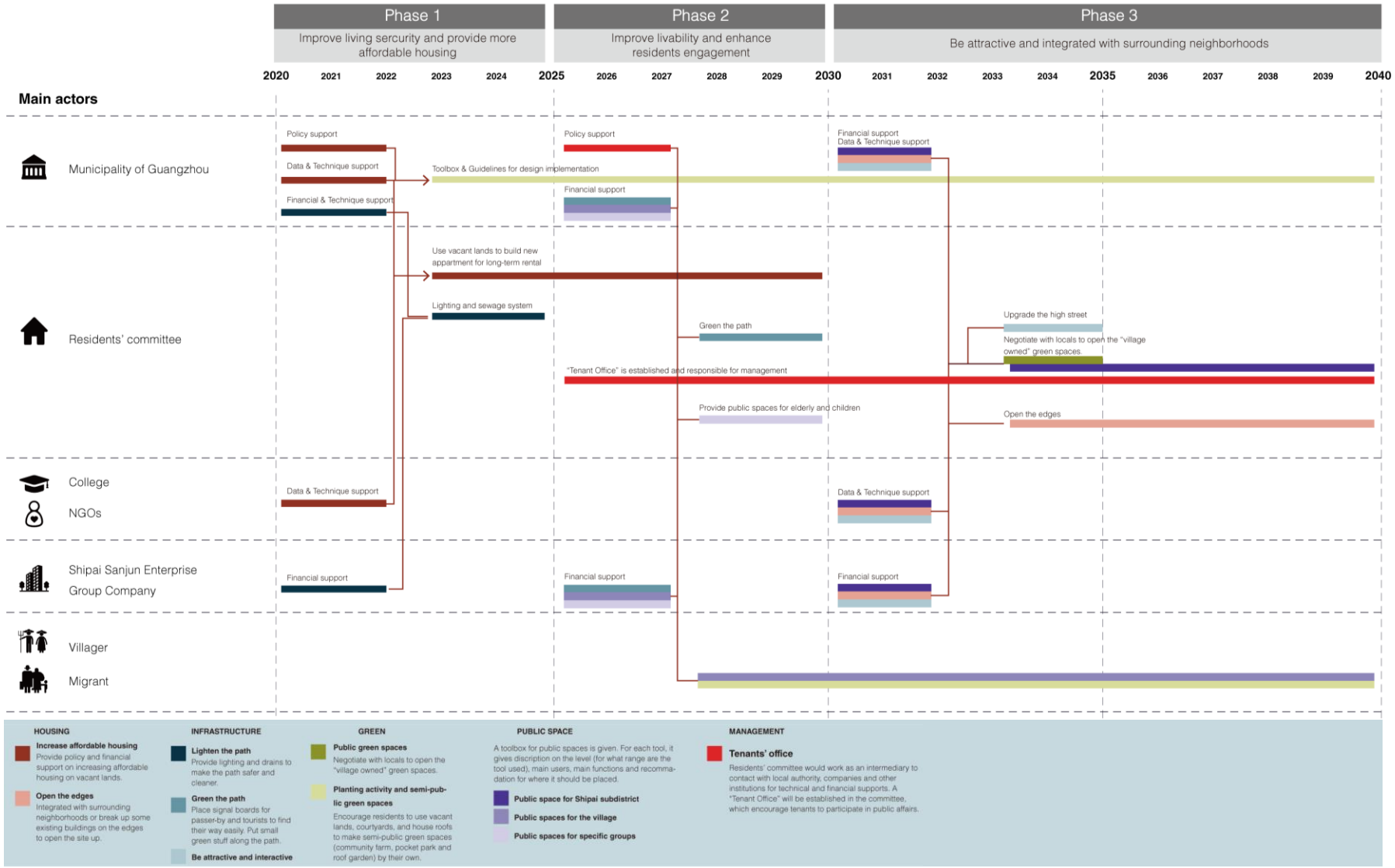
Be livable and enhance resident engagement

Open the edges
Commercial street upgrading
Public space

Be attractive and integrated with surrounding neighborhoods

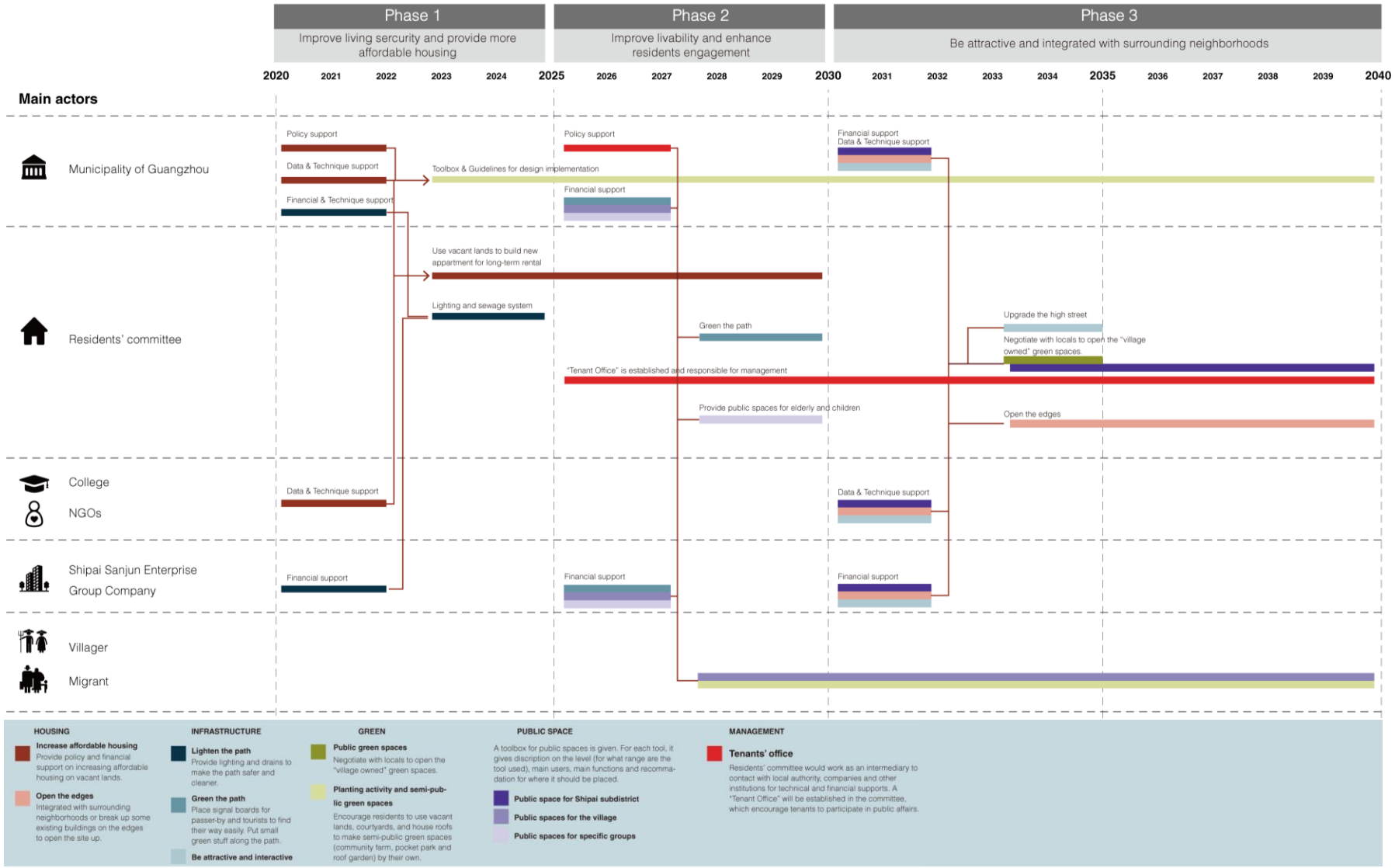
GENERAL TIMELINE

Actions



GENERAL TIMELINE

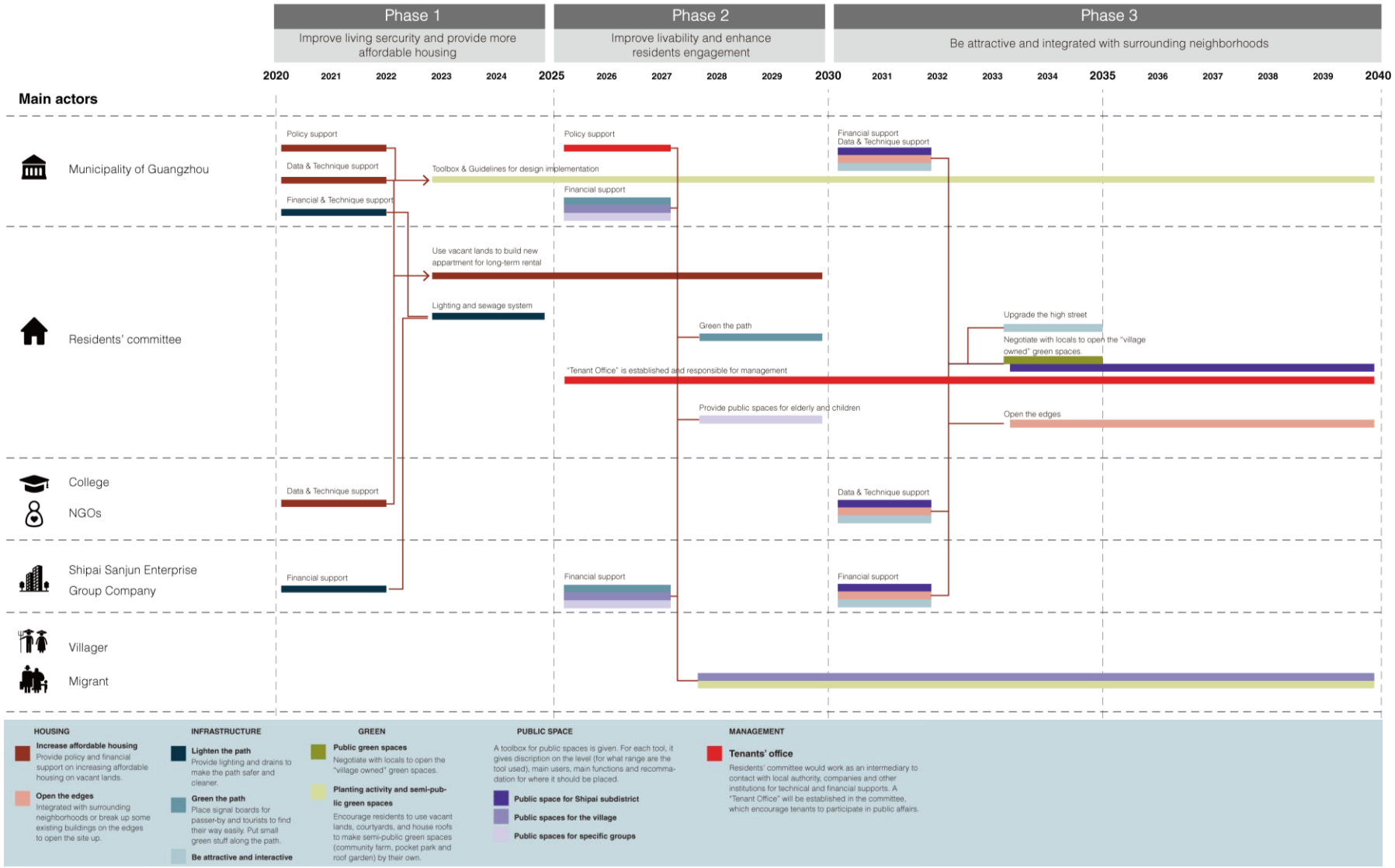
Actions



Finance

GENERAL TIMELINE

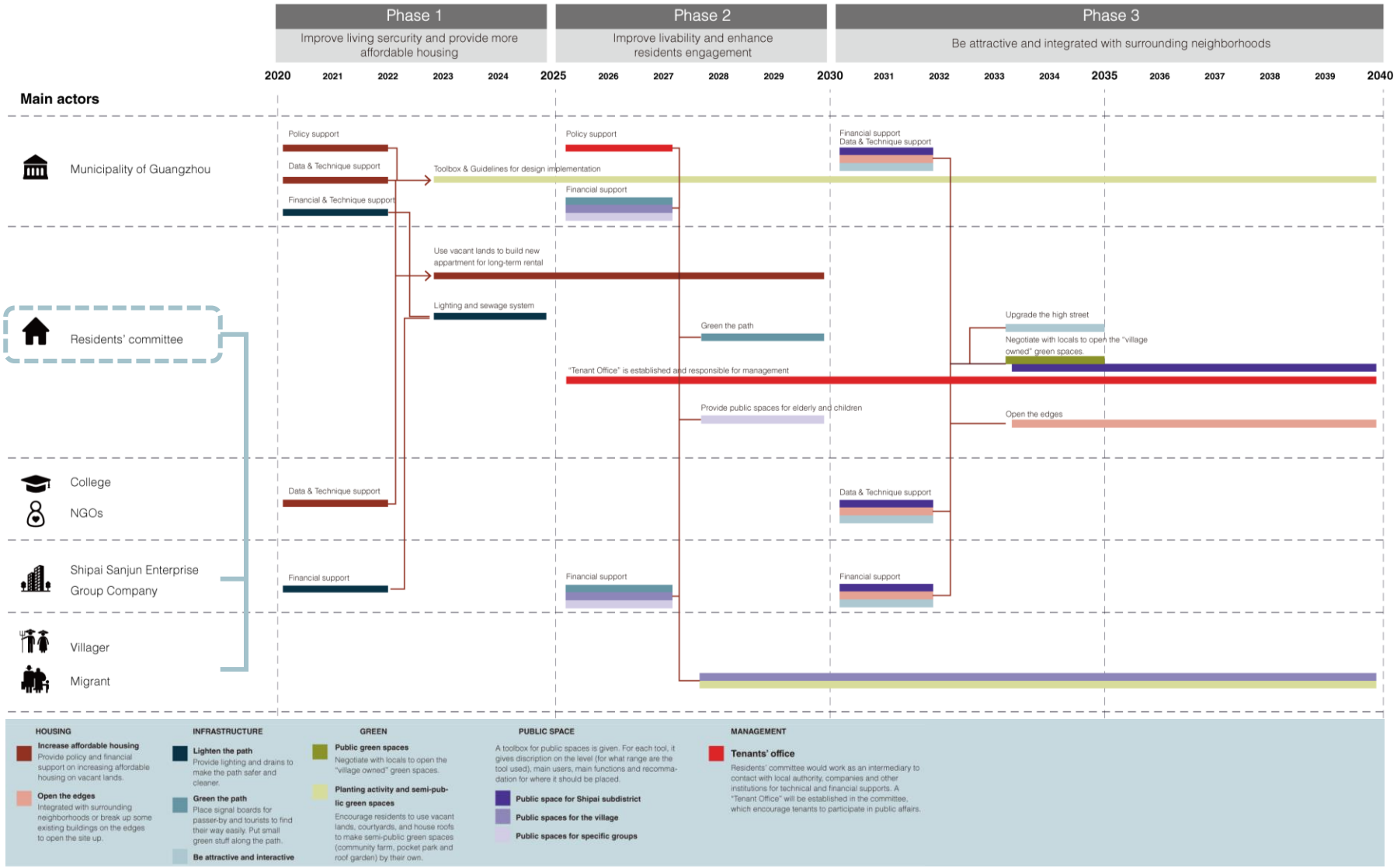
Actions



Finance
Data & Technique
Policy

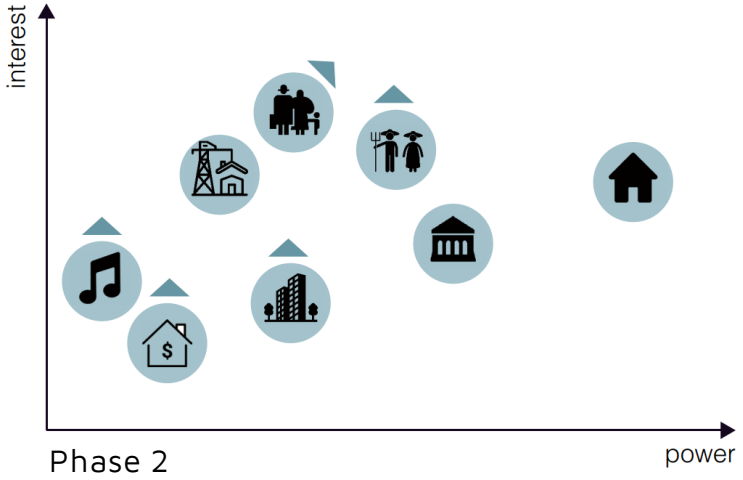
GENERAL TIMELINE

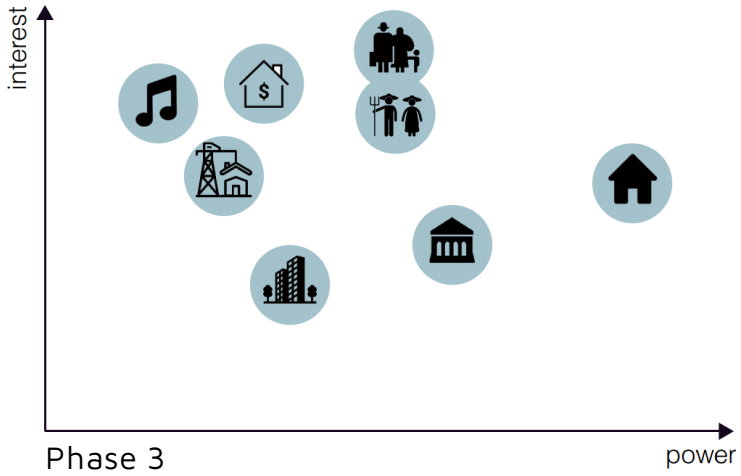
Actions



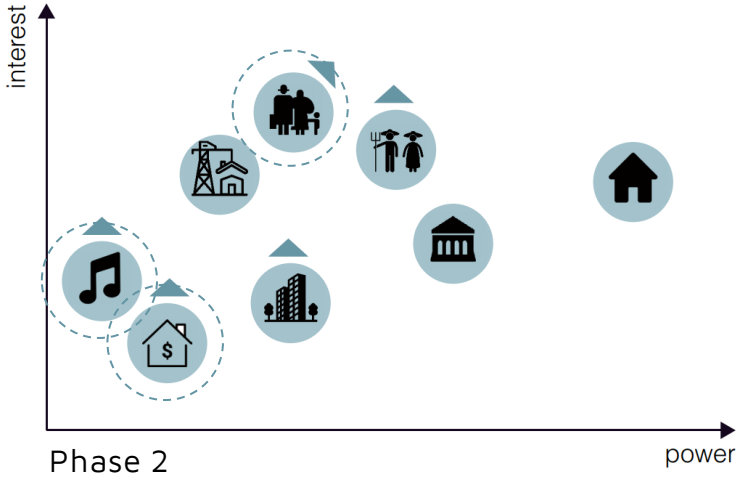
Finance
Data & Technique
Policy

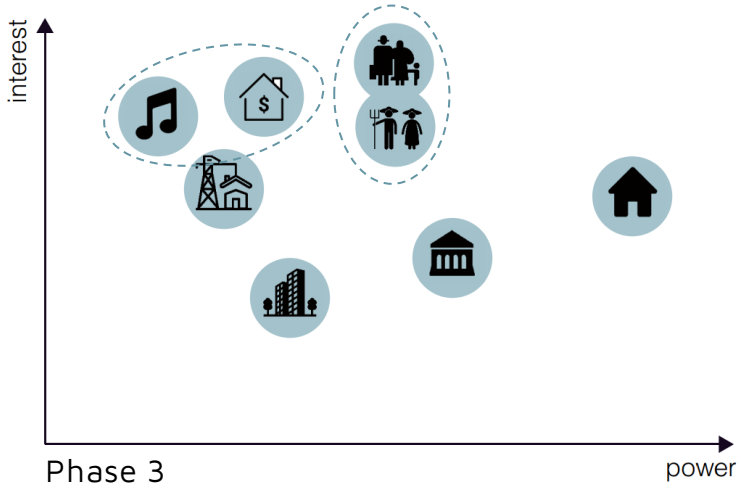
STAKEHOLDERS





STAKEHOLDERS





- Municipality of Guangzhou
- Residents' committees
- Real estate developer
- Shipai Sanjun Enterprise Group Company
- Culture & Recreation
- Villager
- Migrant
- Local shops

DESIGN TEST

Bus stop
Clan temple
Store (ground floor)
Residential

The deign test shows how strategies integrated with specific context. The chosen site is around the west entrance of Shipai village.

DESIGN TEST

Phase 1

1

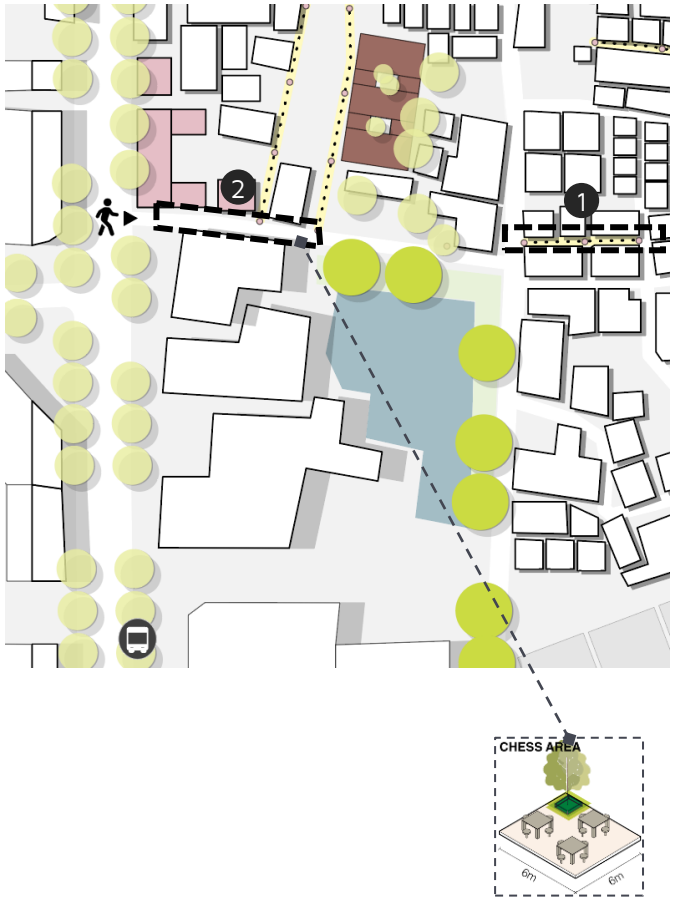
Before

After

Ensure the living security and keep the village clean

DESIGN TEST

Phase 1

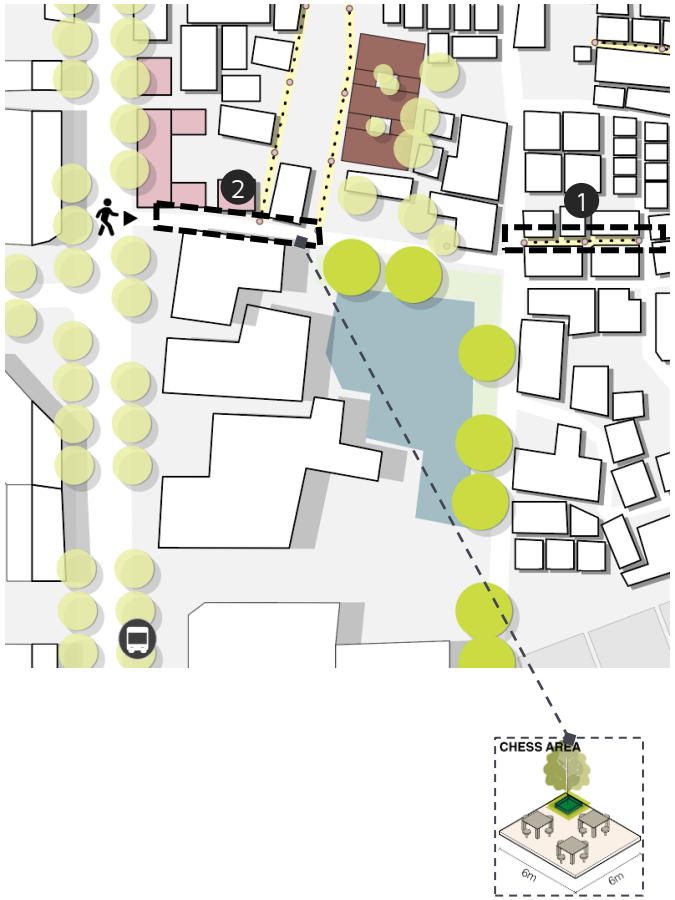


2

Before

DESIGN TEST

Phase 1



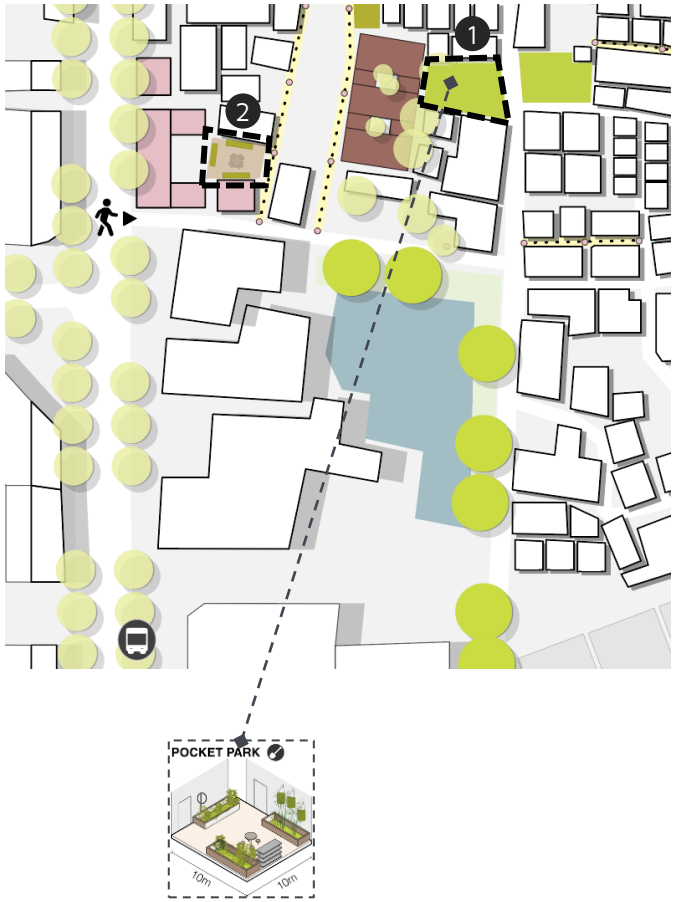
2

After

New apartments for migrants

DESIGN TEST

Phase 2

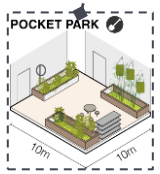


1

Before

DESIGN TEST

Phase 2



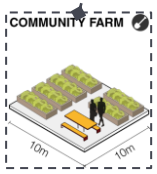
1

After

A tiny pocket park for traditional activities and gardening

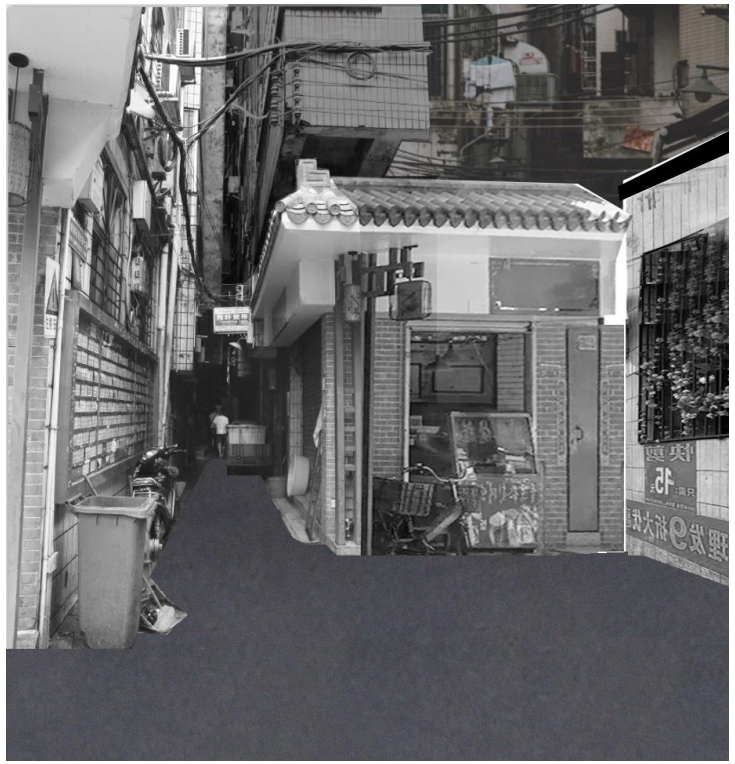
DESIGN TEST

Phase 2



2

Before

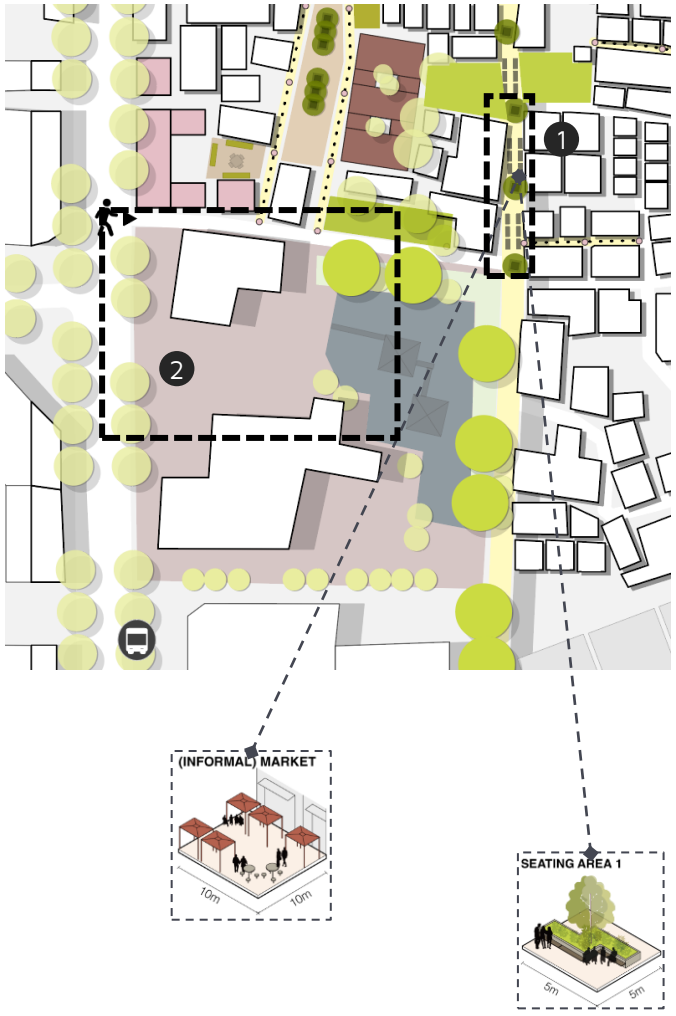


After

Community farm

DESIGN TEST

Phase 3

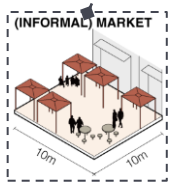


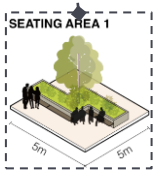
1

Before

DESIGN TEST

Phase 3





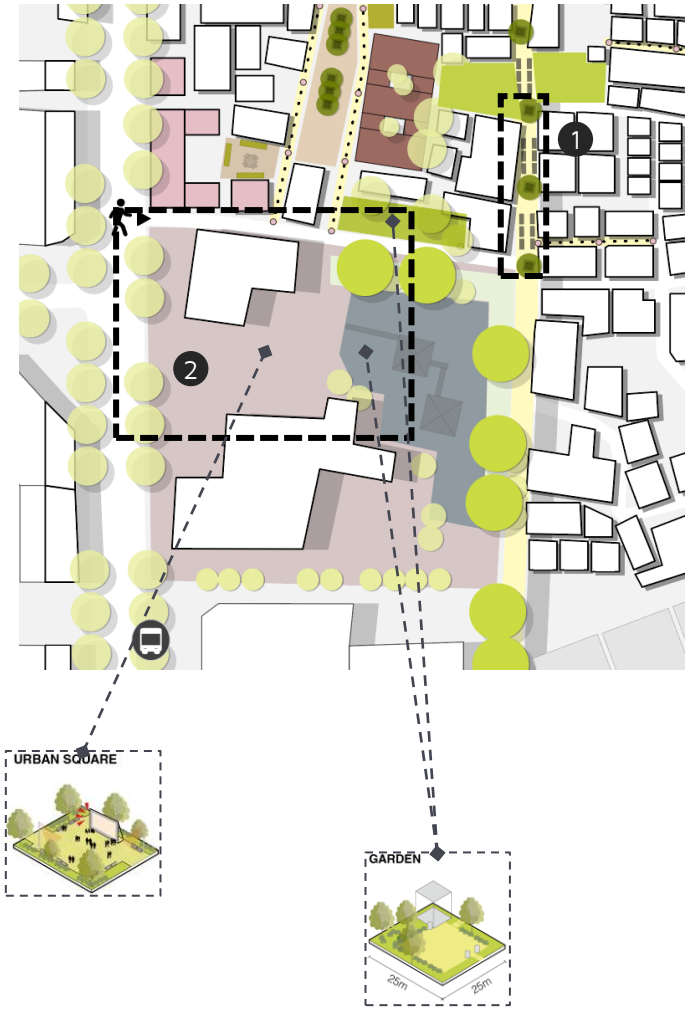
1

After

High streets become the new urban attraction for the whole subdistrict

DESIGN TEST

Phase 3

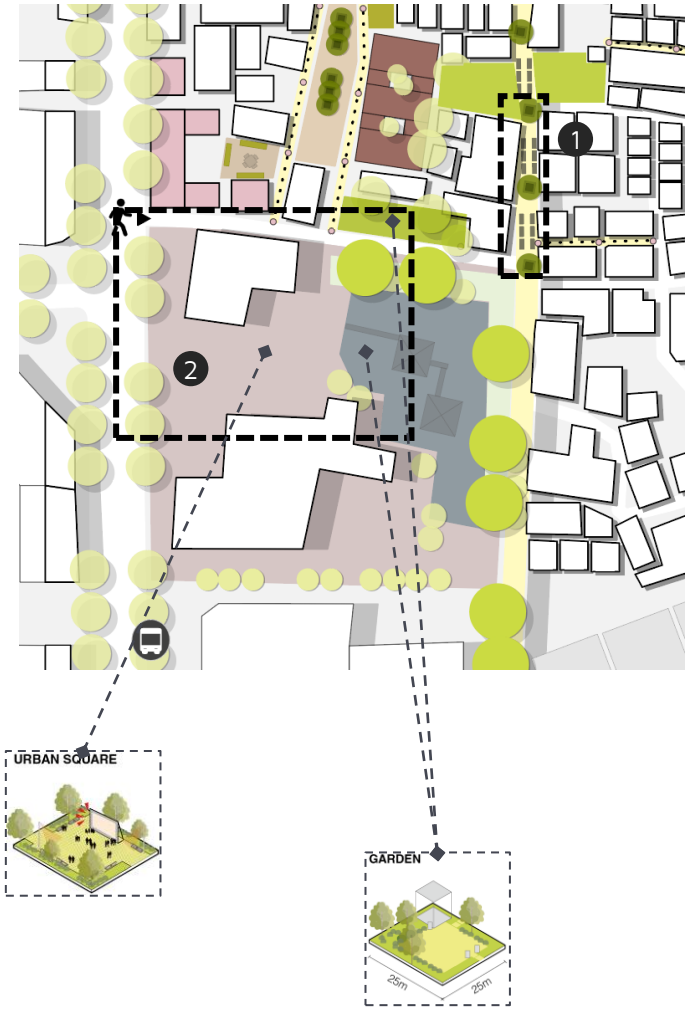


2

Before

DESIGN TEST

Phase 3



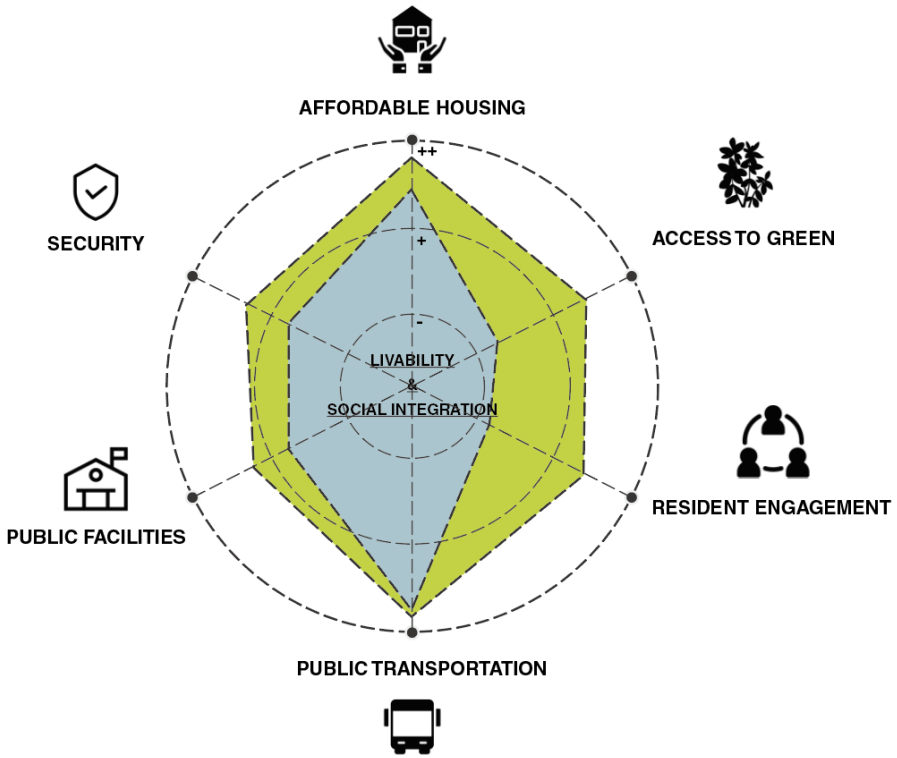
2

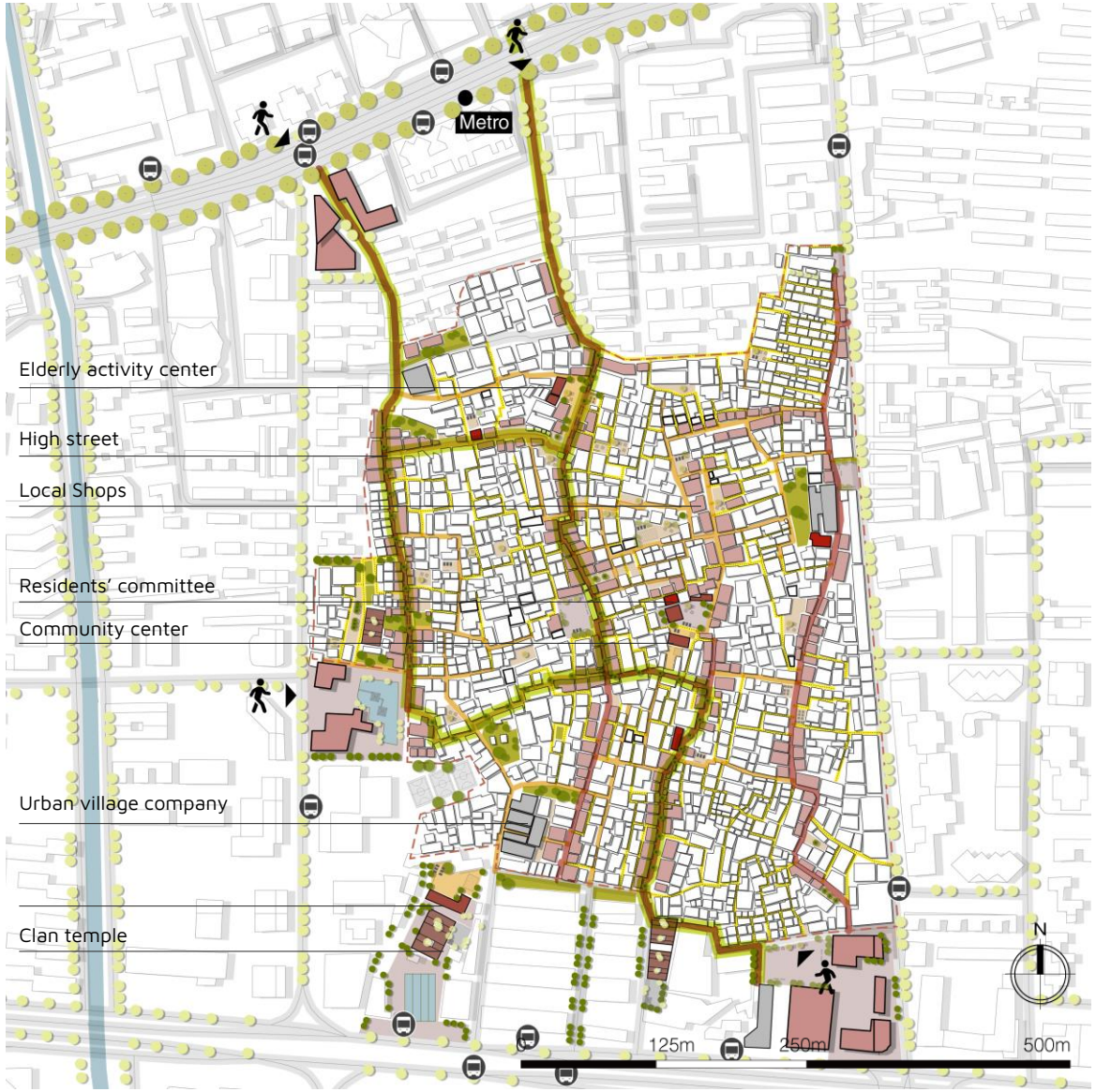
After

The square and garden allow people to do exercise and hold events

CONCLUSION

Assessment of proposed vision





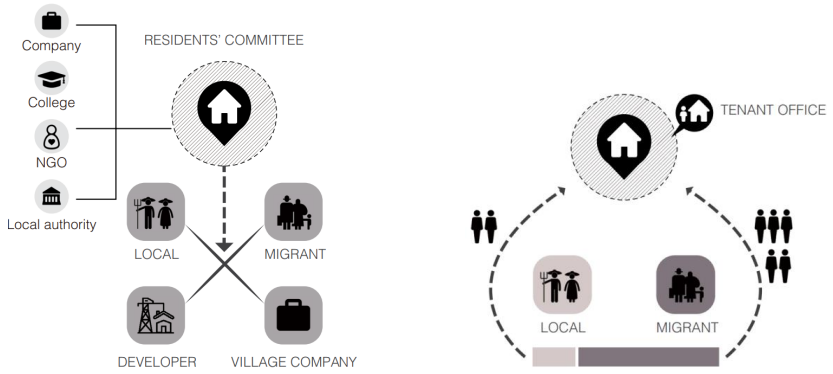
REFLECTION

How could the project contribute to other informal settlements?

REFLECTION

Changes in current planning and management process

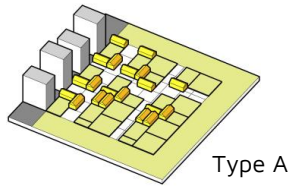
- Ideas of migrants participating into redevelopment process
- Spatial interventions



Changes in the self-management process

Spatial strategies to improve livability

REFLECTION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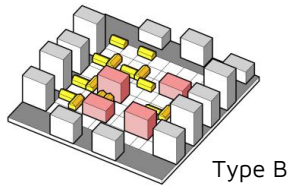
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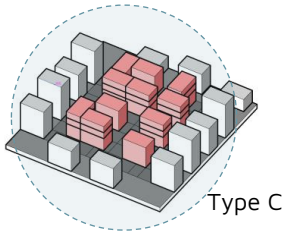
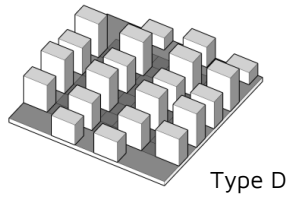
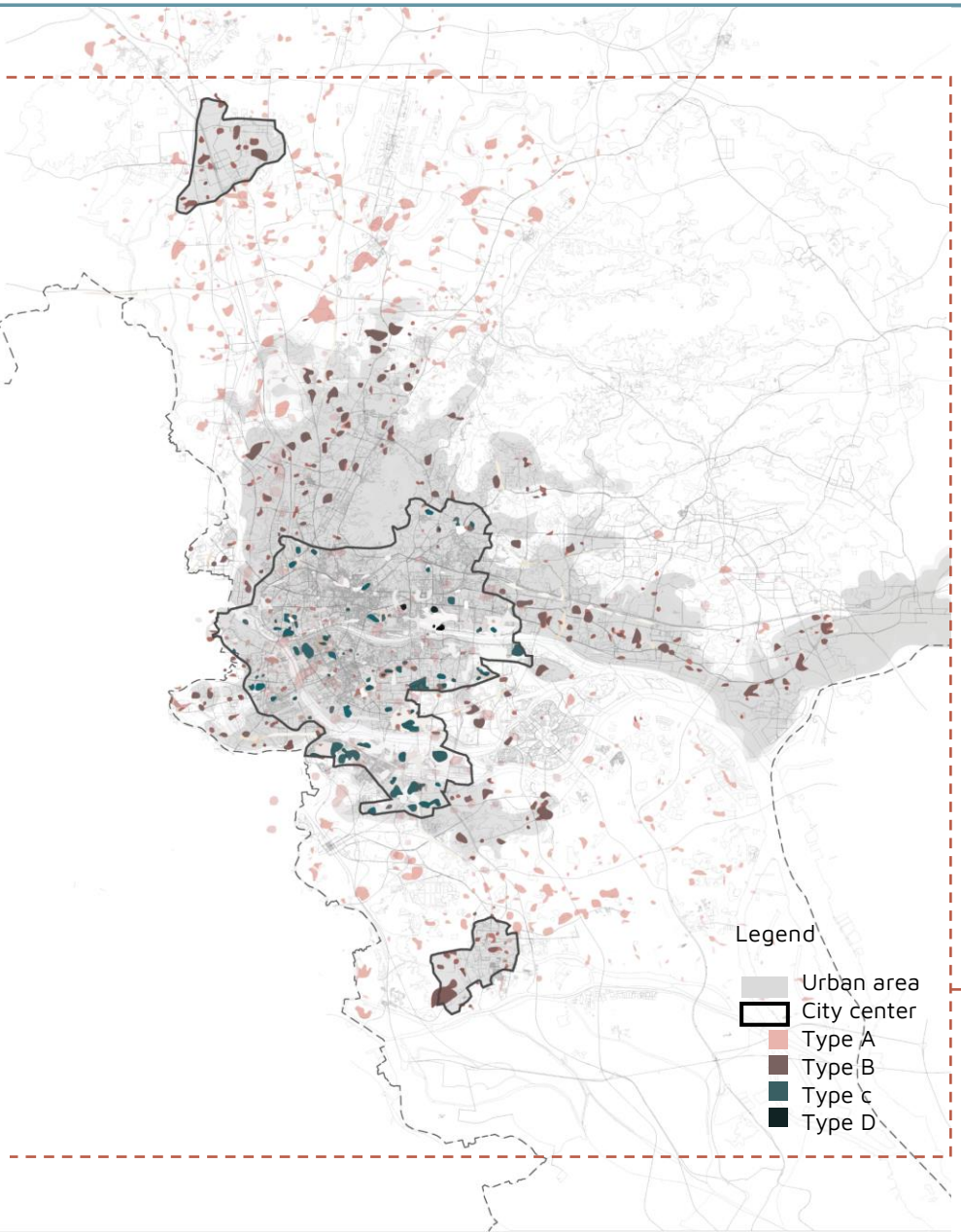

Type C


Type D



REFLECTION

Transferability

- Only used in Shipai village

- Urban villages with similar conditions in Guangzhou (Density, position, *Hukou* state, land ownership, farmland)

- Other types urban villages in Guangzhou city

- Informal settlements in other regions

	DATA	METHOD	PRODUCT
ANALYSIS	Urban scale • Density • Position • Hukou state • Management • Farmland Village scale • Social network • Infrastructure • Facilities • Public space & activities	Online survey on social media • Word frequency analysis • "Interview" Mapping	Urban scale • Categorization Village scale • Layer-analysis Assessment
DESIGN			Strategies • Spatial • Managerial Toolbox • Public space

OVERALL CONCLUSION

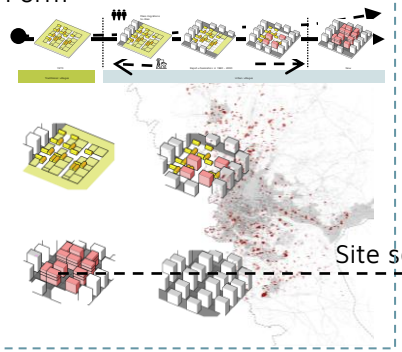
Main Research question

How to facilitate the redevelopment of urban villages in Guangzhou in a more inclusive and sustainable manner,

which provides a livable environment and promotes social integration?

ANALYSIS	EXPOSE	PROPOSE	
Sub Group 1	Sub Group 2	Sub Group 3	Generalize the results
Form Role Governance	Criteria for livability and social integration Spatial & social characteristics Demand of different stakeholders	Strategies and implementation	

Form



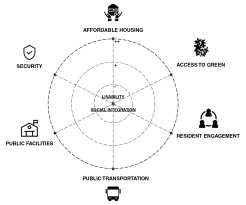
Site selection

Role

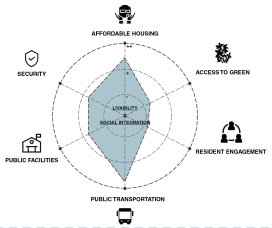
For villagers For migrants

Governance

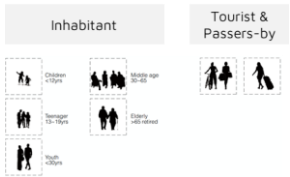
Criteria



Assess current situation

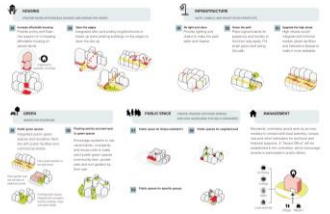


Survey

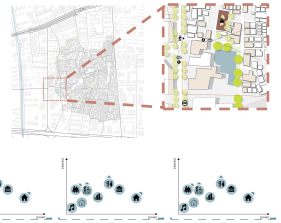


Vision

Strategies

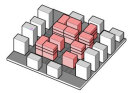


Design test & Stakeholders



For villages in Guangzhou

The propose solutions could be applied in other same type villages in Guangzhou.



For other types: Redo the assessment to define the problems

For villages in other cities

Methods

Thank you for your listening!