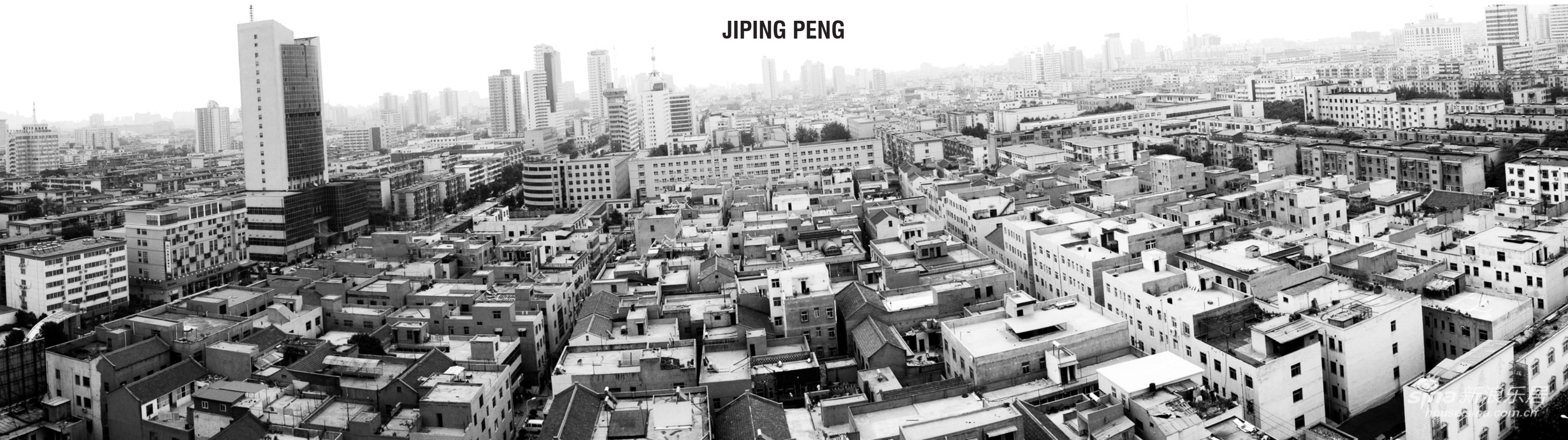# INSIDE-OUT TRANSITION

URBAN VILLAGES TRANSFORMATION STRATEGY IN SHENZHEN CHINA

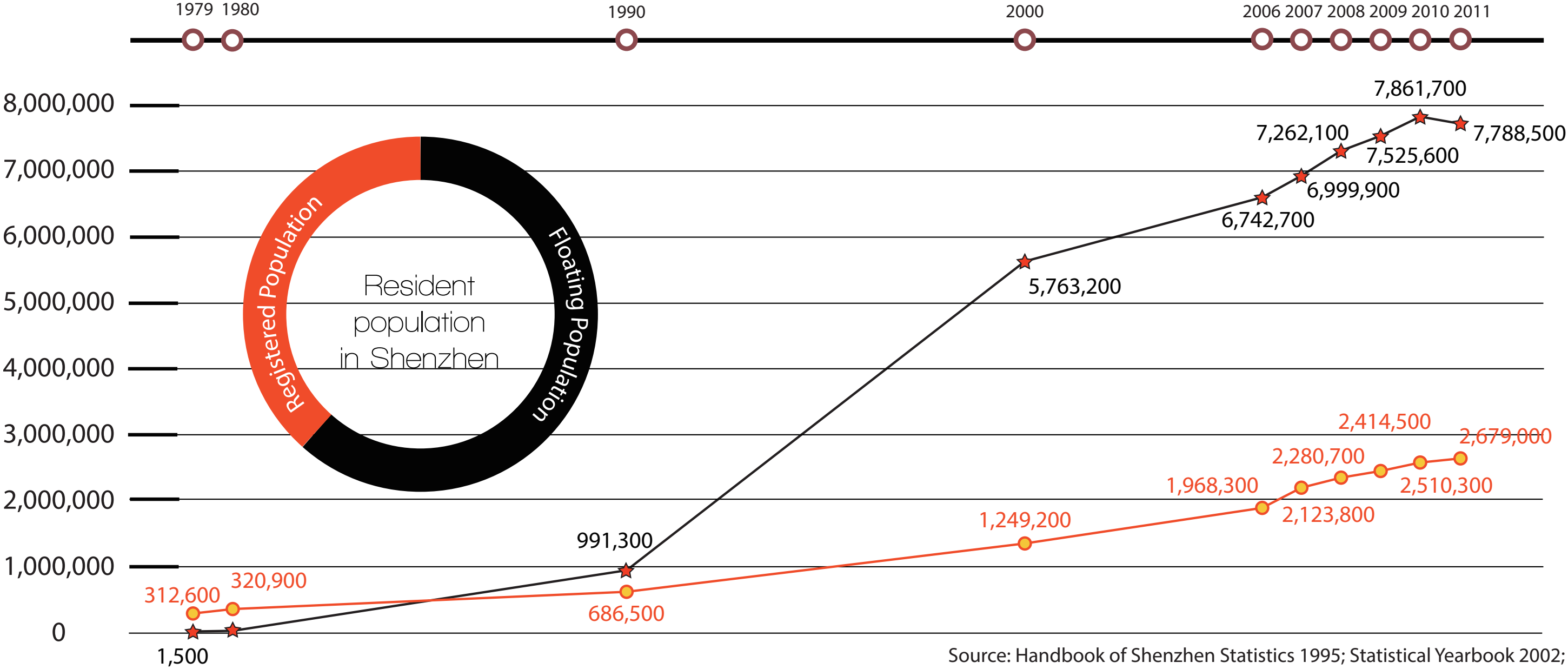JIPING PENG

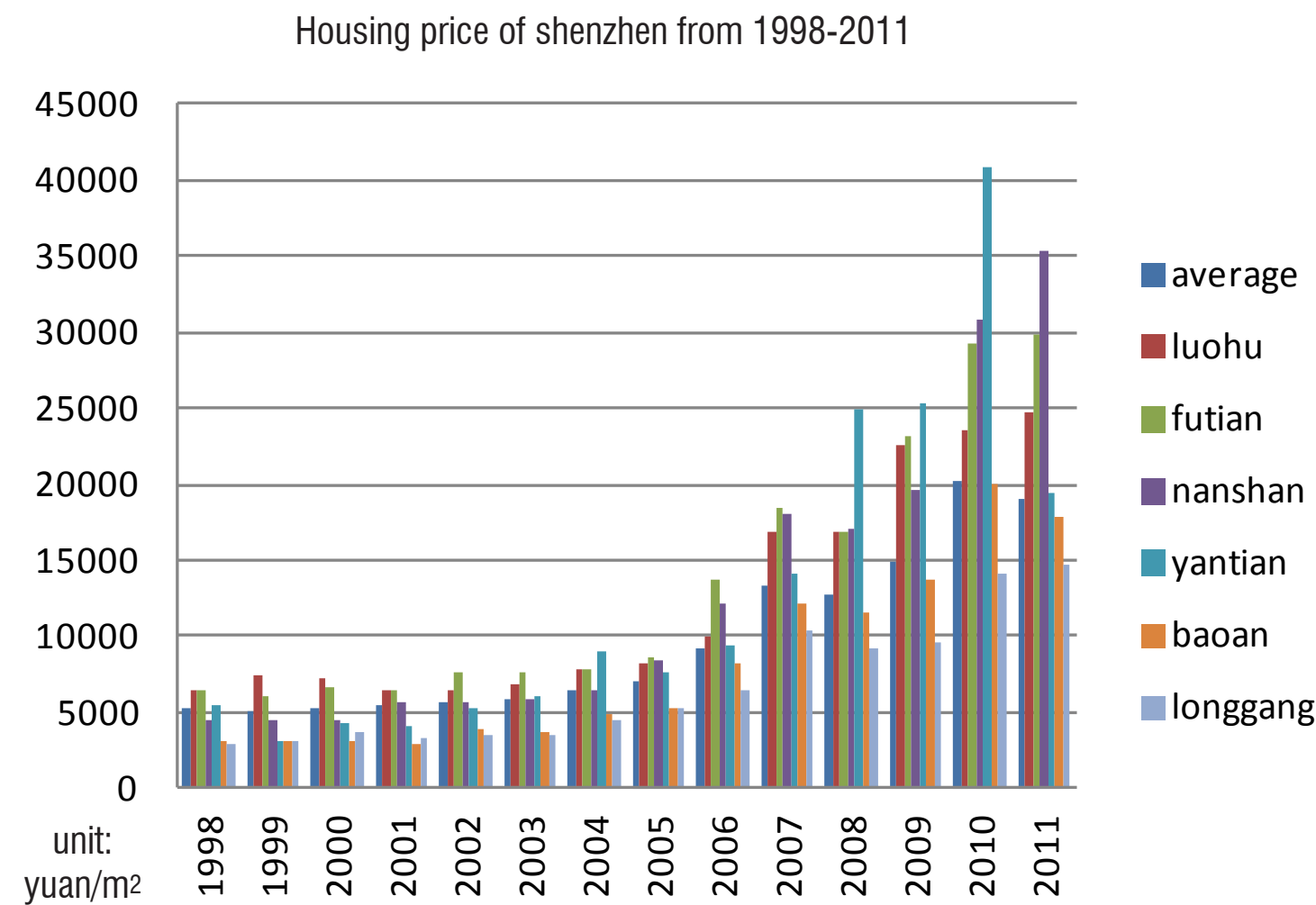# 1. INTRODUCTION
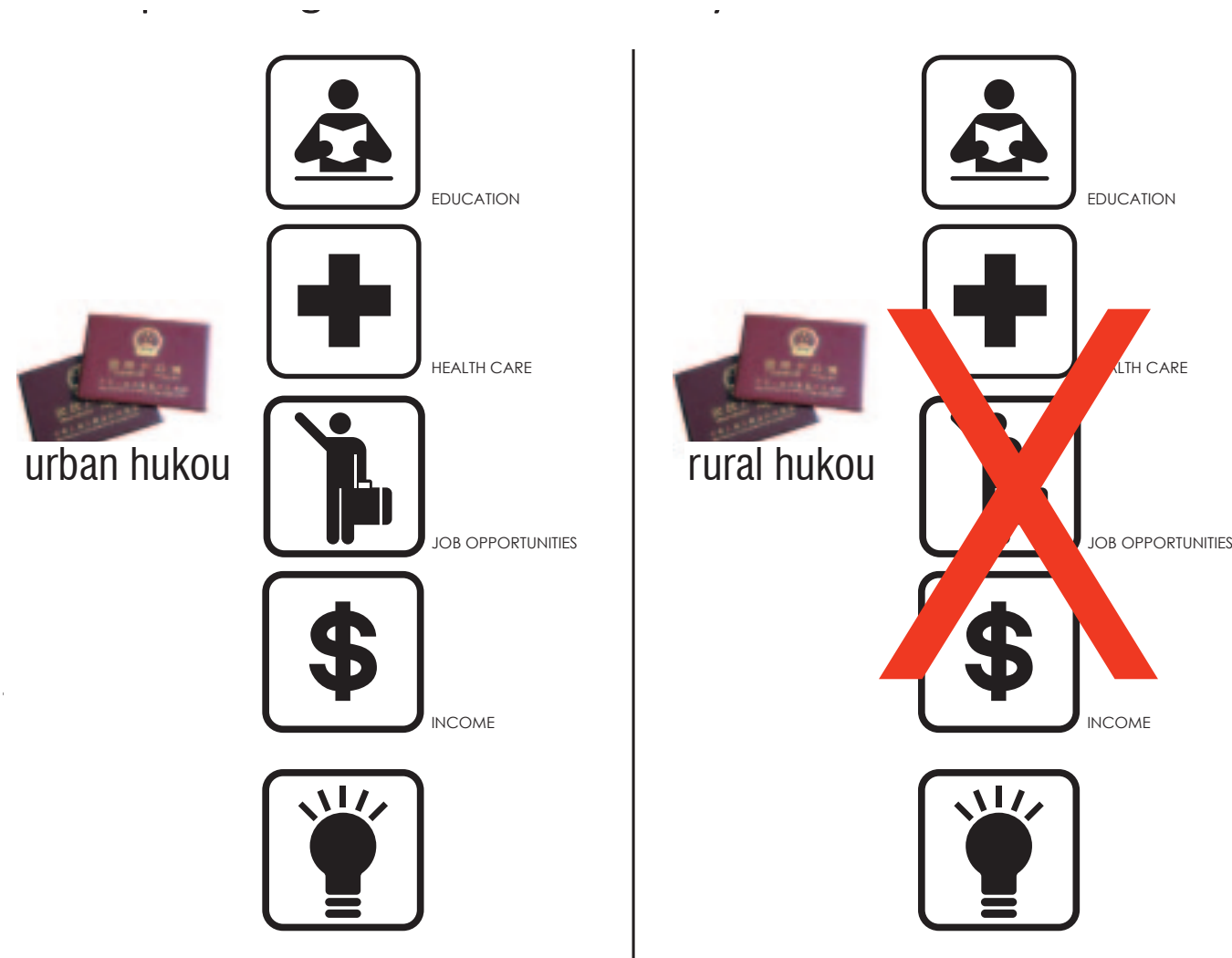
RURAL-URBAN MIGRATION
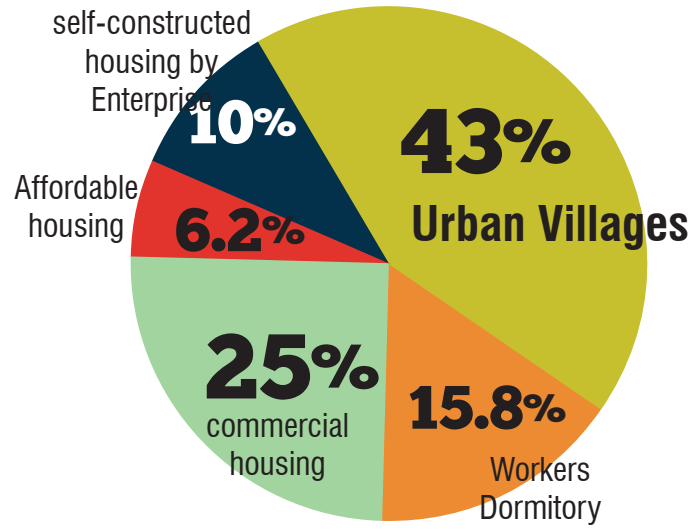# THE TIDE NOBODY CAN STOP

SHENZHEN-MIGRANT CITY

1979 1980   1990   2000   2006 2007 2008 2009 2010 2011

8,000,000

7,000,000

6,000,000

5,000,000

4,000,000

3,000,000

2,000,000

1,000,000

0

Registered Population

Resident
population
in Shenzhen

Floating Population

7,861,700

7,788,500

7,262,100

7,525,600

6,999,900

6,742,700

5,763,200

2,414,500

2,679,000

2,280,700

2,510,300

1,968,300

2,123,800

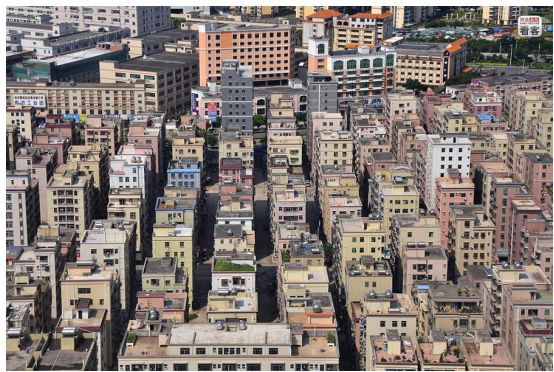1,249,200

991,300

686,500

320,900

312,600

1,500
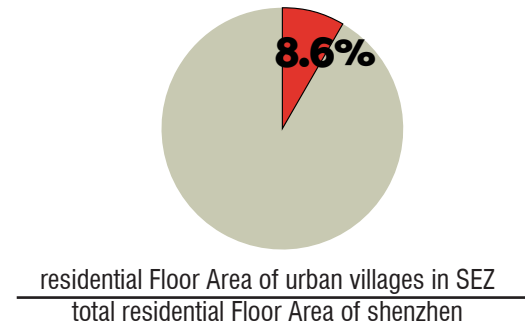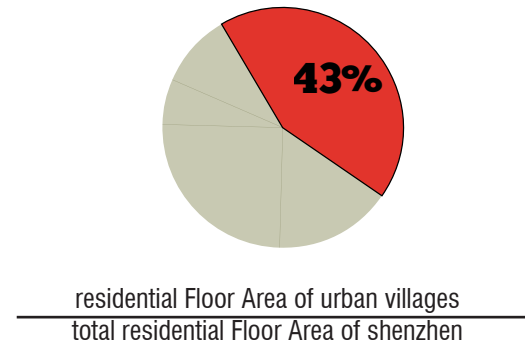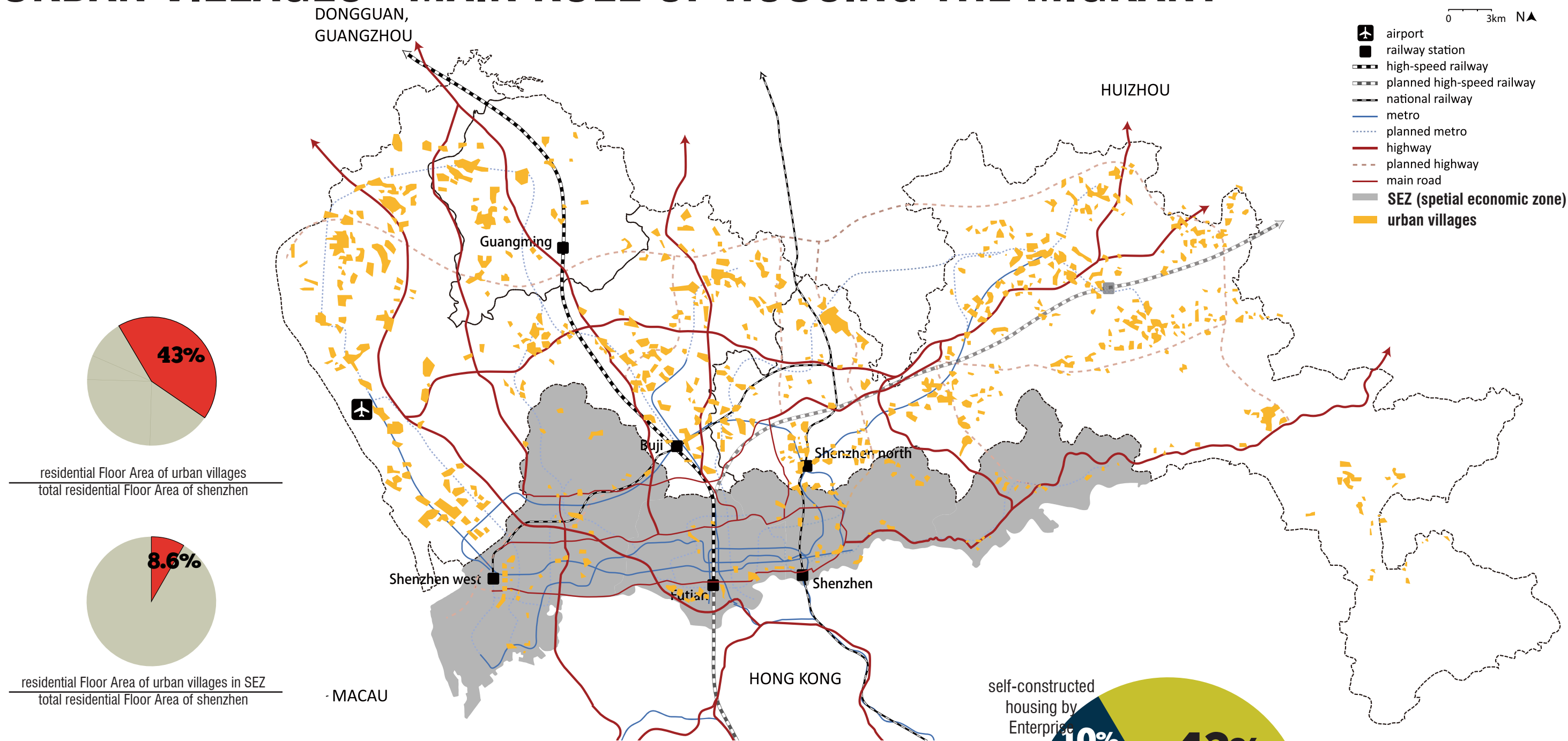
Source: Handbook of Shenzhen Statistics 1995; Statistical Yearbook 2002;
Shenzhen Government Online 2012 at http://english.sz.gov.cn/gi/, 30-10-2012

CONTEXT

THE MARGINAL STATUS OF RURAL MIGRANTS IN FORMAL HOUSING

urban hukou

EDUCATION

HEALTH CARE

JOB OPPORTUNITIES

INCOME

rural hukou

EDUCATION

HEALTH CARE

JOB OPPORTUNITIES

INCOME

Housing price of shenzhen from 1998-2011

45000
40000
35000
30000
25000
20000
15000
10000
5000
0

average
luohu
futian
nanshan
yantian
baoan
longgang

1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011

unit:
yuan/m2

CONTEXT

URBAN VILLAGES - MAIN ROLE OF HOUSING THE MIGRANT

✈ airport
■ railway station
▄▄▄ high-speed railway
▄▄▄ planned high-speed railway
▄▄▄ national railway
─── metro
···· planned metro
─── highway
- - - planned highway
─── main road
SEZ (spetial economic zone)
urban villages

DONGGUAN,
GUANGZHOU

HUIZHOU

Guangming

Shenzhen north

Buji

Shenzhen west

Futian

Shenzhen

HONG KONG

- MACAU

43%

residential Floor Area of urban villages
─────────────────────────────────
total residential Floor Area of shenzhen

8.6%

residential Floor Area of urban villages in SEZ
──
total residential Floor Area of shenzhen

self-constructed
housing by
Enterprise

10%

Affordable
housing

6.2%

25%
commercial
housing

43%
Urban Villages
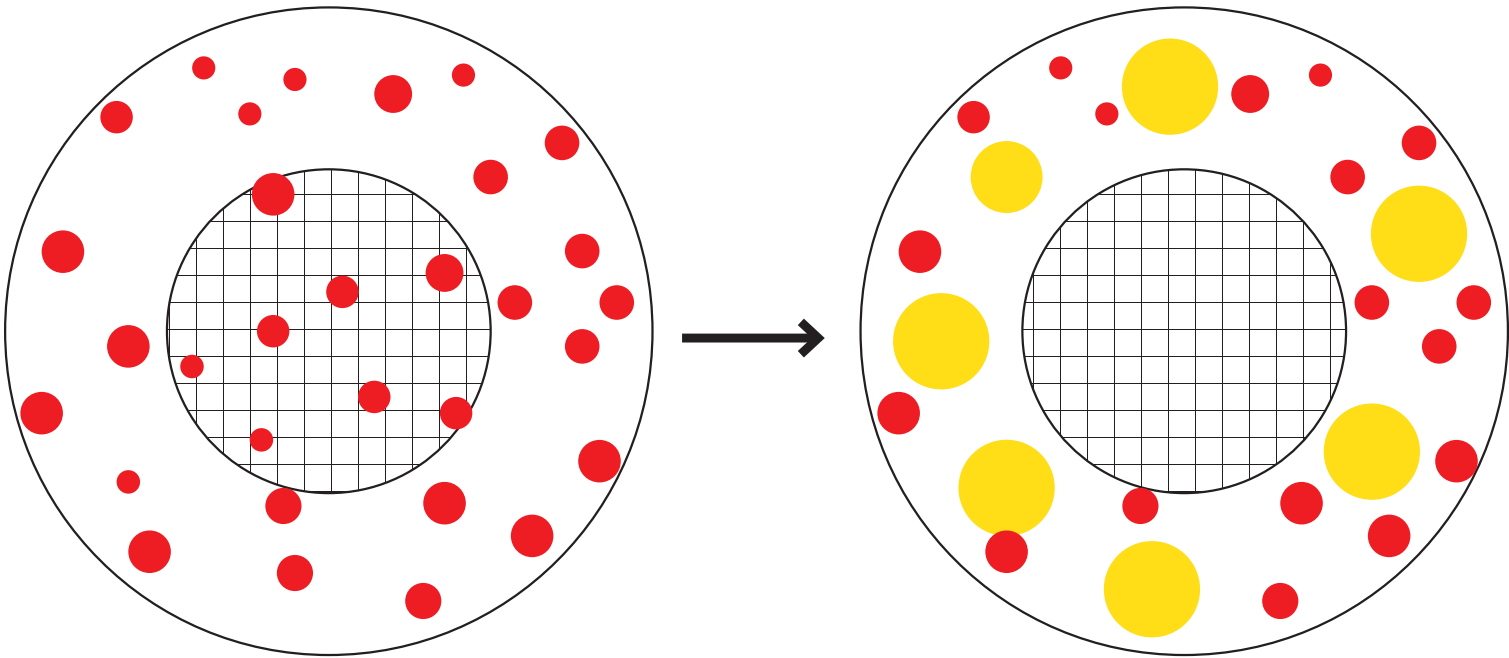
15.8%
Workers
Dormitory

Housing category and proportion

CONTEXT

URBAN VILLAGE REDEVELOPMENT AND AFFORDABLE HOUSING DEMAND

Current approach balance urban villages redevelopment and affordable housing demand

- urban villages
- central districts
- shenzhen city
- social housing neighborhoods

PROBLEM FIELD

CONSTRAINTS OF CURRENT APPROACH

1. Conflict between huge affordable housing demand and government's financial constraints

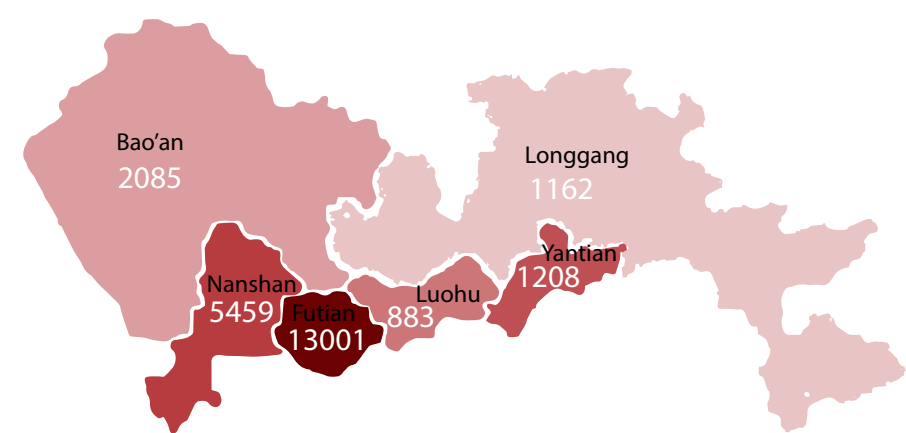Fig1.9 The completed amouts of affordable housing in Shenzhen from 2006-2010.

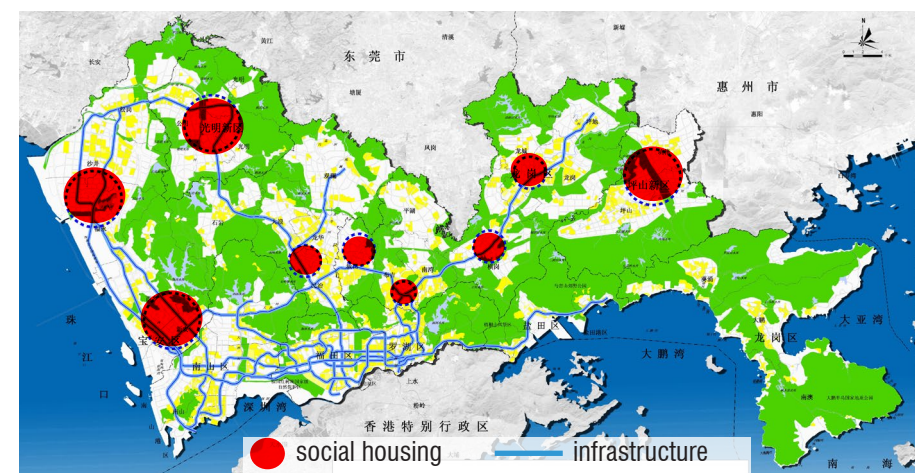**2. Conflict between affordable housing location demand and government's land constraints**

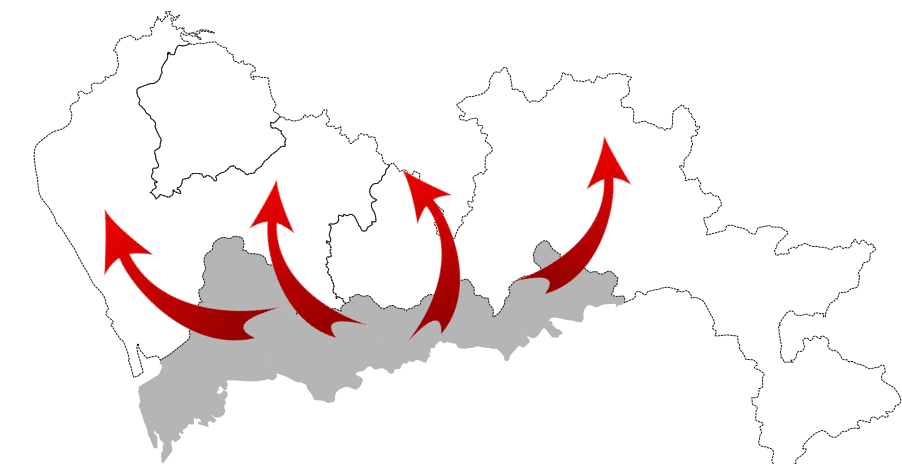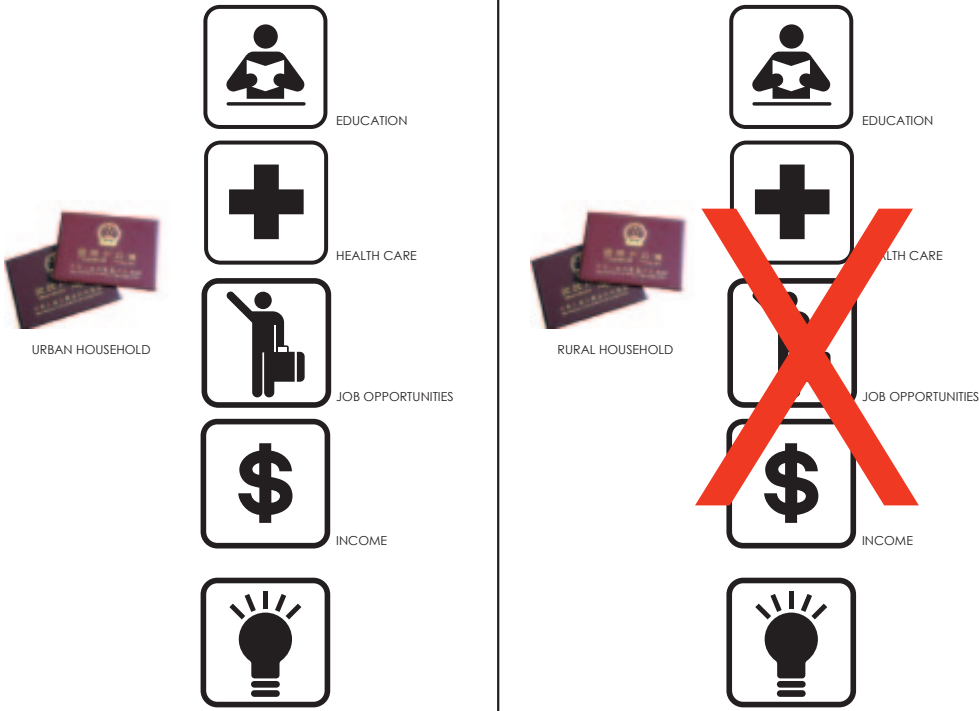Fig 1.10 The plan of affordable housing in Shenzhen from 2011-2015

Fig 1.11 SHENZHEN development during transitional period

3. Institutional constraints

PROBLEM FIELD

To preserve and upgrade the urban villages then use them as effective tools to house the migrants, especially during the SHENZHEN transitional period.

PROJECT AIM

How to transform the urban villages into liveable neighbourhoods through improving the living environment and dealing with both the problems and opportunities of self-organizing systems in urban villages, and retain their roles as housing the migrants during SHENZHEN transitional period?

1. How to improve the living environment in urban villages?

2. What are the problems and opportunities of self-organizing systems in urban villages?

3. How to retain roles of upgrading urban villages as housing the migrants during SHENZHEN transitional period?

SELF-ORGANIZING SYSTEM?

LIVING ENVIRONMENT IMPROVEMENT?

PROBLEMS?

OPPORTUNITIES?

HOUSING THE MIGRANT?

UNCERTAIN FUTURE?

?

PROBLEMFIELD

urban villages redevelopment

affordable housing demand

PROJECT AIM

upgrade the urban villages then use them as effective tools to house the migrants

RESEARCH QUESTIONS

How to transform the urban villages into liveable neighbourhoods through improving the living environment and dealing with both the problems and opportunities of self-organizing systems in urban villages, and retain their roles as housing the migrants during SHENZHEN transitional period?

TEST SITE ANALYSIS

self-organizing system
methods:site visit, interview,

opportunities   **problems**

challenage of living environment
methods:site visit,Mapping,Data

THEORETICAL FRAMEWORK

self-organizing system
methods:Literature Research, case

opportunities   **problems**

planning approach
methods:Literature Research, case

visions   **actions**

living environment design principles
methods:Literature Research

basic human   **control over**

STRATEGY

visions and partnerships at different scale

city scale   **district**

upgrading self-organizing system
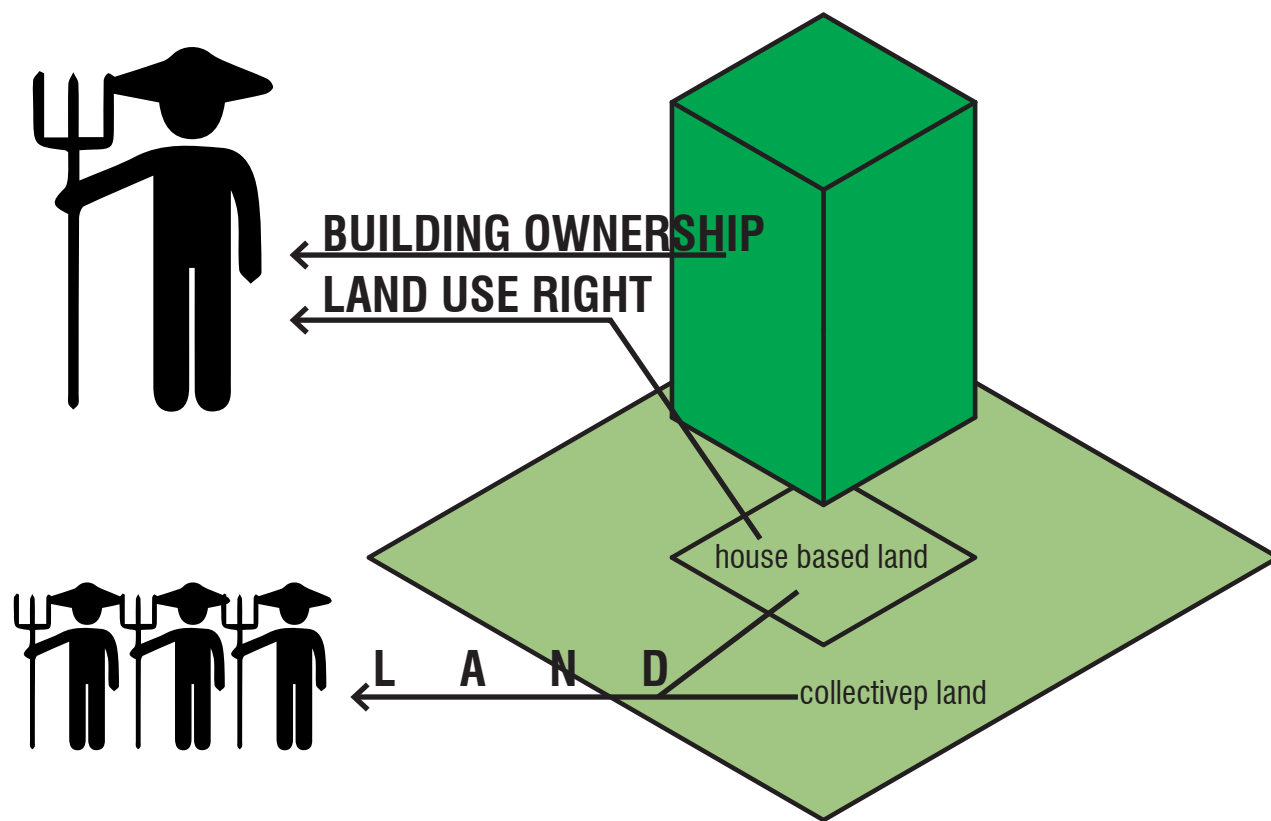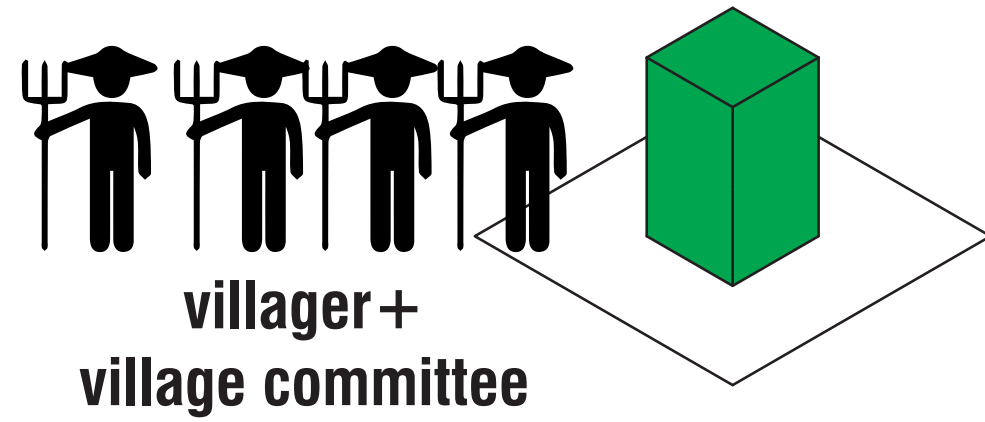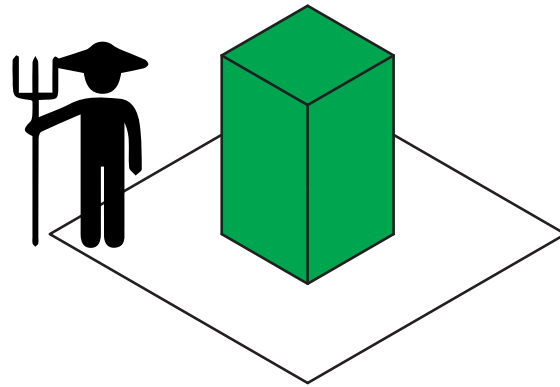
actions of living environment improvement

CONCLUSION

METHODOLOGY

2. THEORETICAL FRAMEWORK

BUILDING OWNERSHIP

LAND USE RIGHT

house based land

L A N D

collectivep land

villager

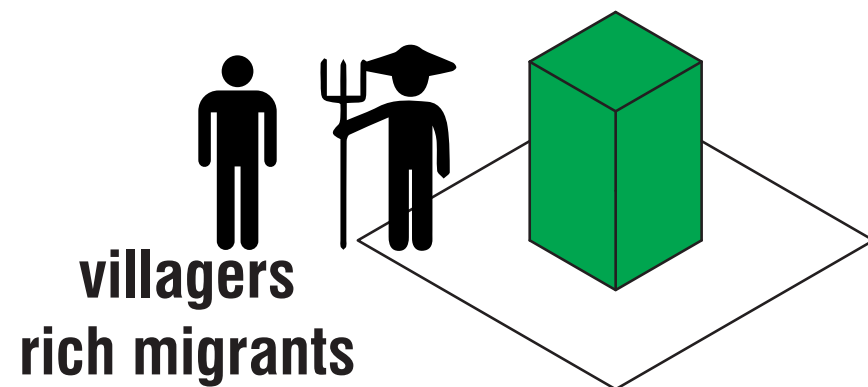villager +
village committee
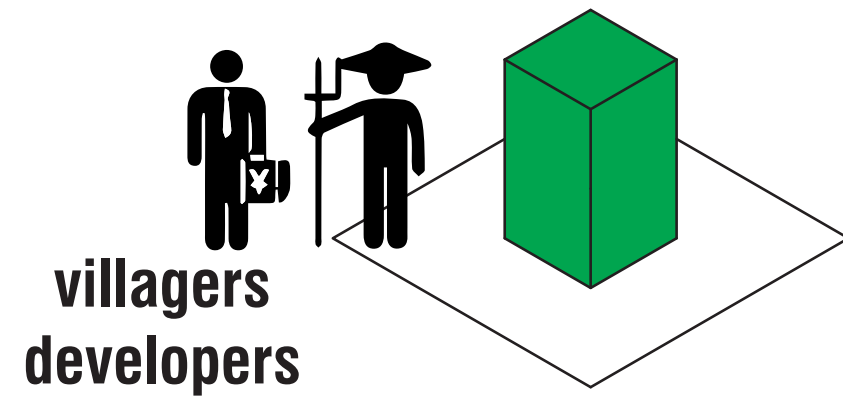
villagers
developers

villagers
rich migrants
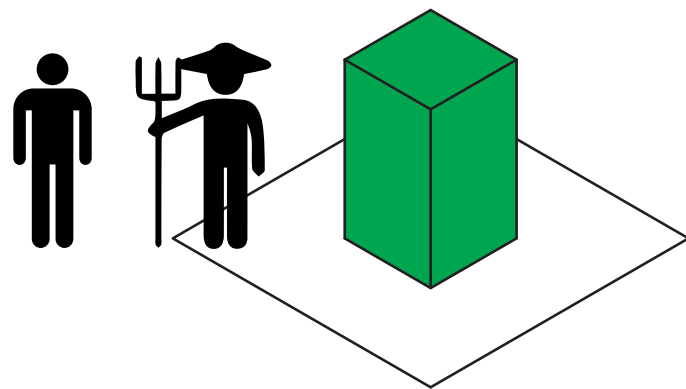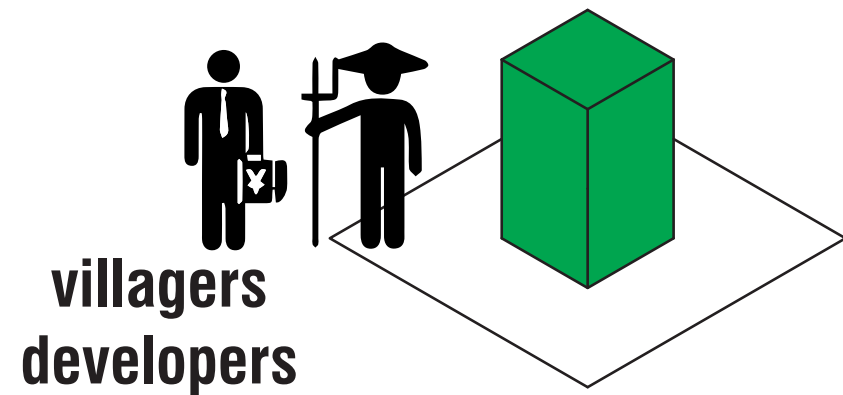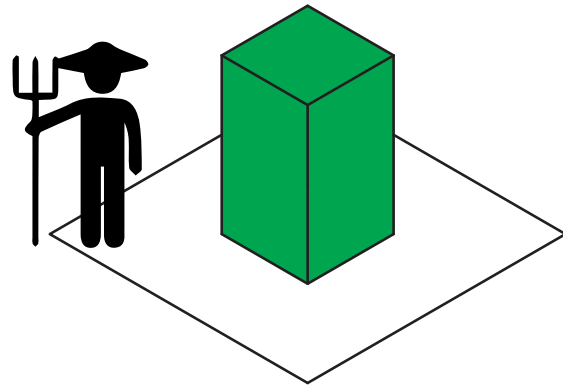
villager
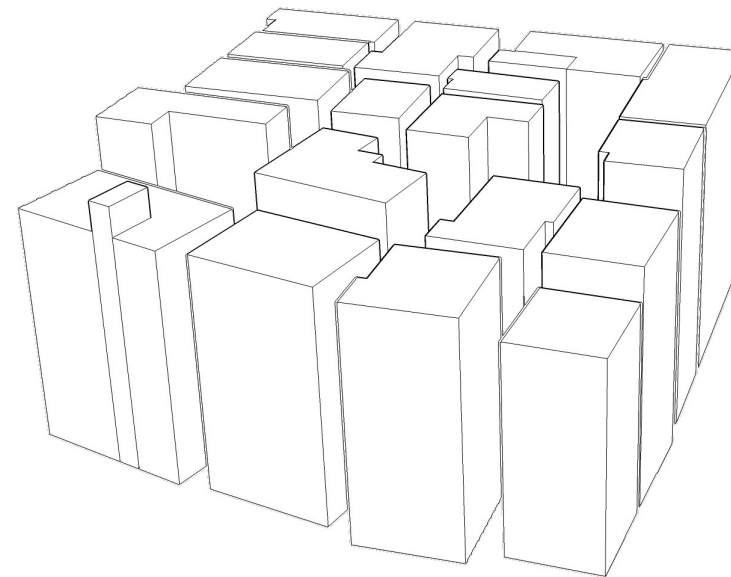
villager +
village committee

villagers
developers

SELL

Low-income citizens who can
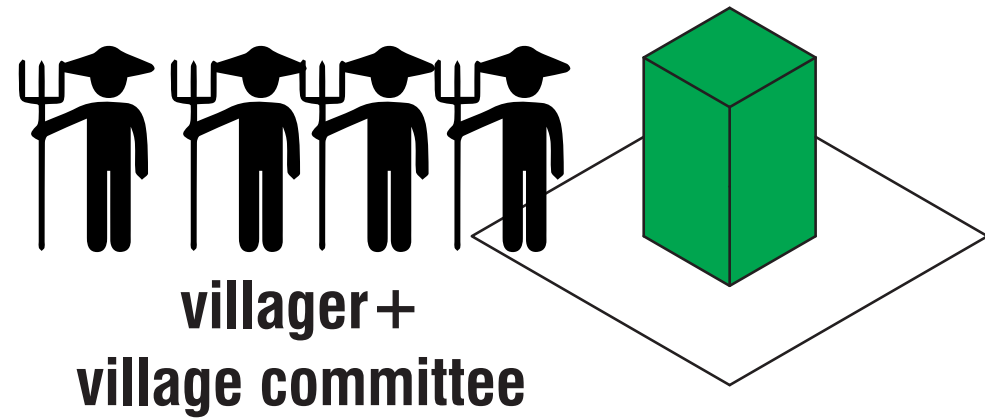not afford formal houseing;
housing speculators
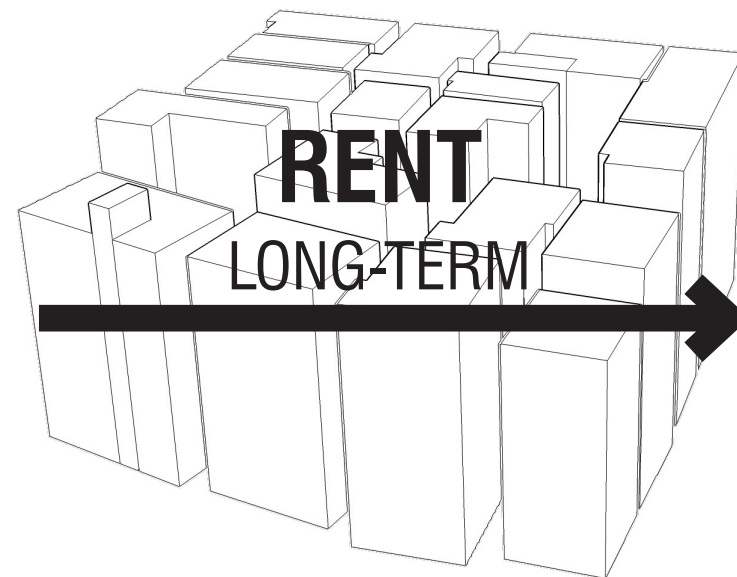
RENT
LONG-TERM

informal sectors estabilished
by groups of migrants

RENT
SHORT-TERM

individual migrant

opportunities

Informal but efficient housing trade

Informal but vibrant economic activities

Informal but necessary public facilities

Job opportunities in urban villages

problems

Conflict between public and private interest

Lack of effective regulation and maintenance

Lack of tenure security

Lack of tenant management

STRATEGIC URBAN PROJECT APPROACH

stakeholders Partnerships

Visions at different scales

Specific actions in strategic locations

basic human needs for living environment

escape temporarily from the physical stresses of the urban environment;
experience nature;
privacy;
security and safety
affiliation and belonging;
social recognition and status;
physical exercise;
tension-release

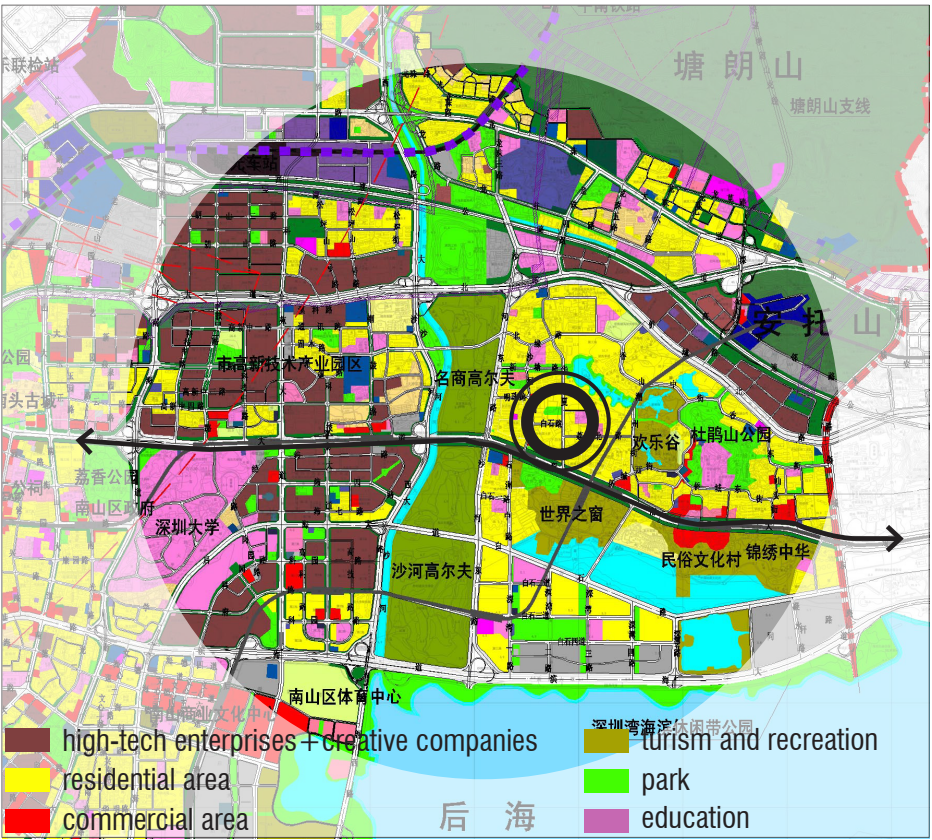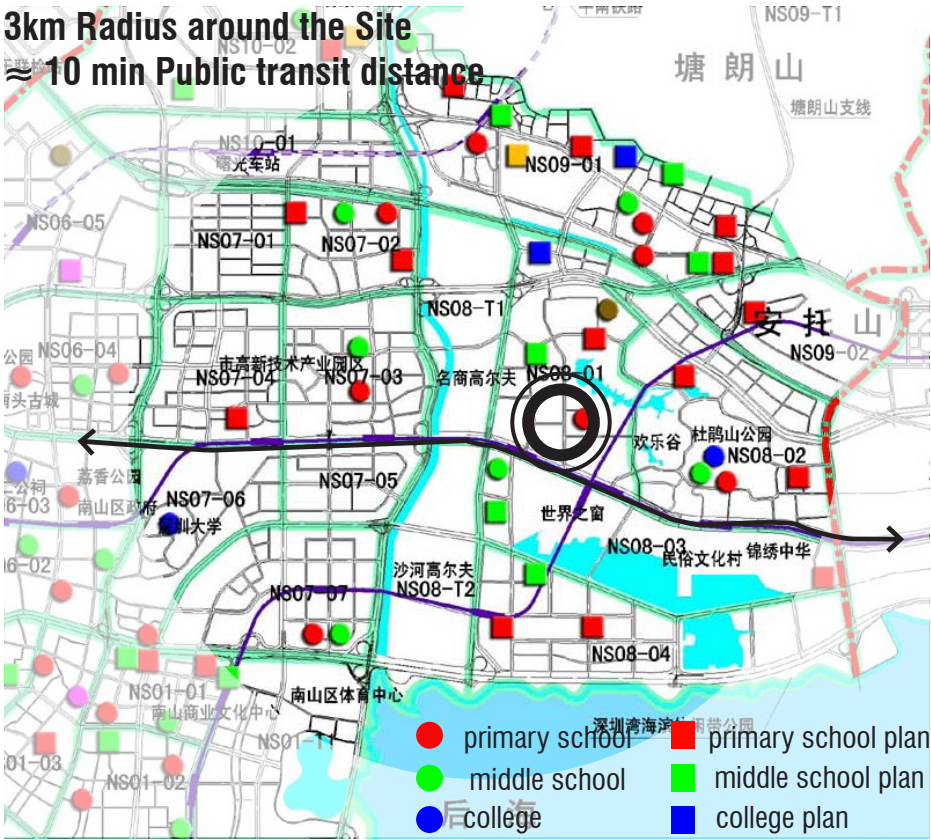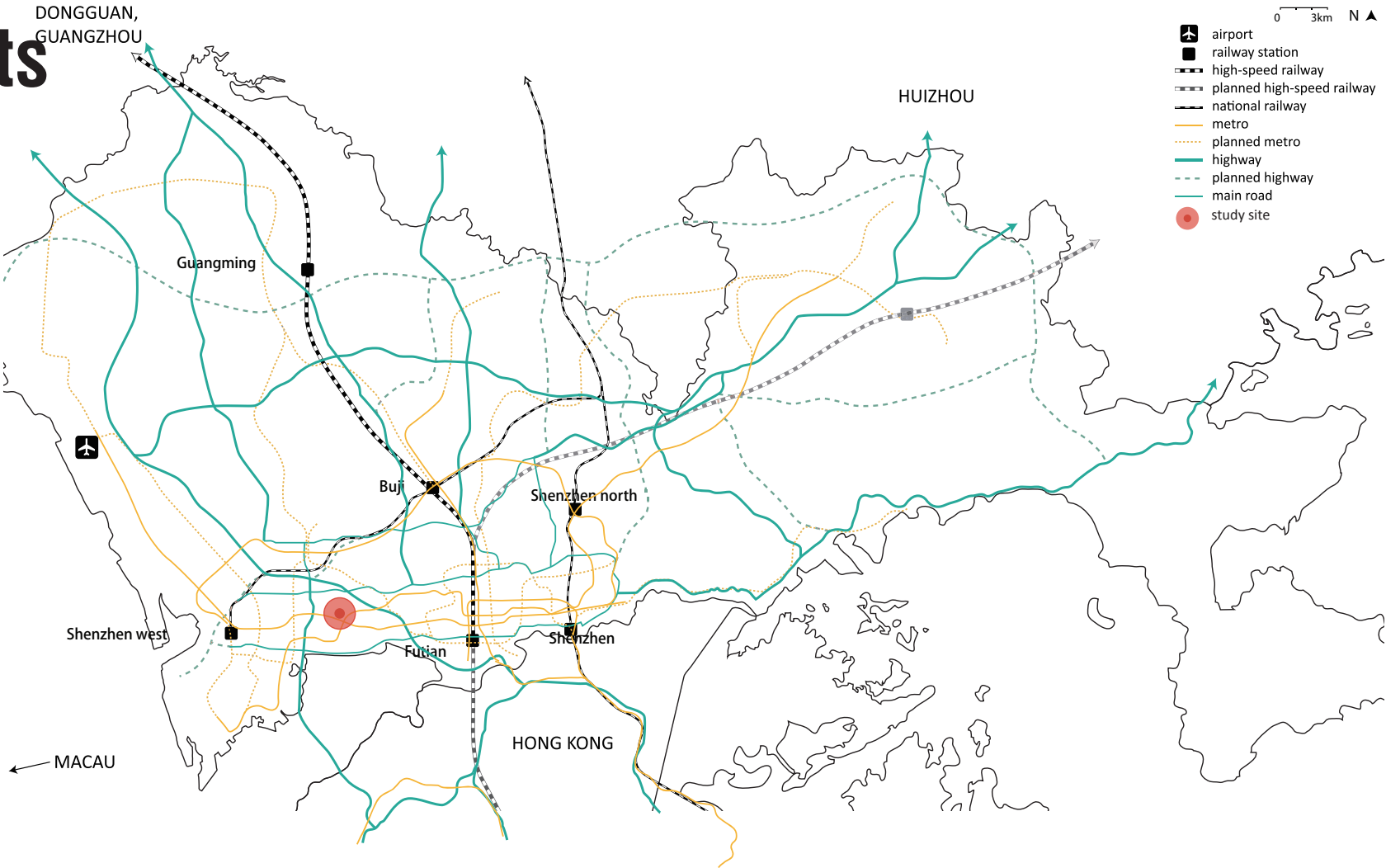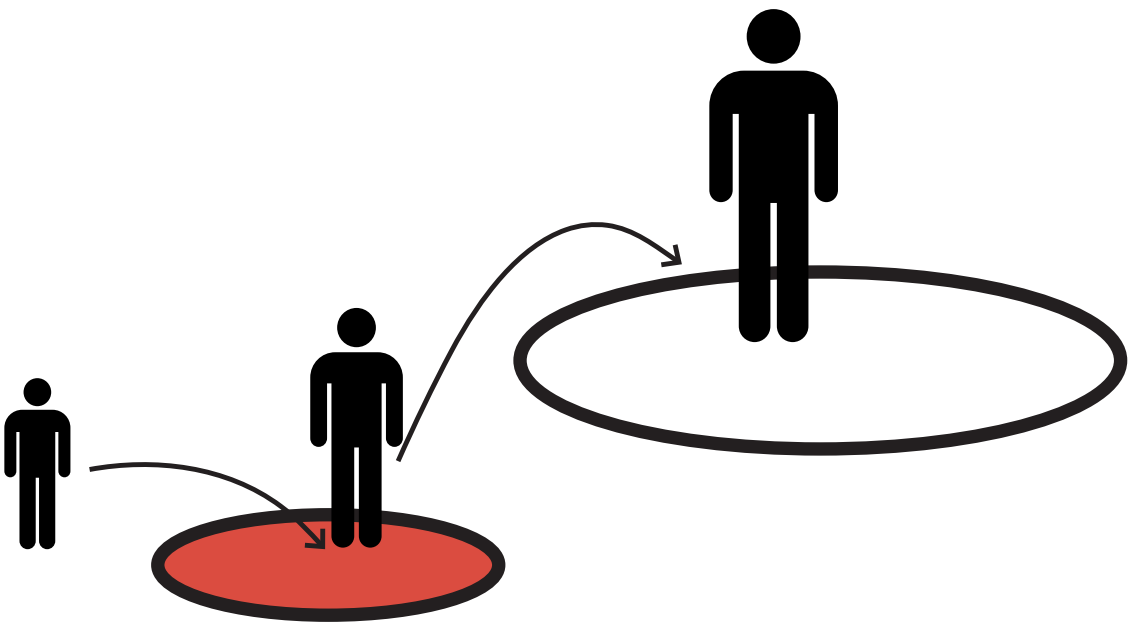## control over social environment

INTERPERSONAL DISTANCE ZONE
TERRITORIAL BEHAVIOUR
DIFFERENT ZONES OF PRIVACY

3. TEST SITE-BAISHIHZOU

Efficient tools to house the migrants

DONGGUAN, GUANGZHOU

HUIZHOU

Guangming

Shenzhen north

Buji

Shenzhen west

Futian

Shenzhen

MACAU

HONG KONG

0   3km   N ▲

3km Radius around the Site
≈ 10 min Public transit distance

- primary school
- middle school
- college
- primary school plan
- middle school plan
- college plan

- hospital
- cultural center
- swimming pool
- stadium
- library
- hospital (plan)
- cultural center(plan)
- swimming pool(plan)
- stadium(plan)
- library(plan)
- Children's Hall(plan)

- high-tech enterprises+creative companies
- residential area
- commercial area
- Turism and recreation
- park
- education

INTRODUCTION   **THEORETICAL FRAMEWORK**   **BAISHIZHOU**

Efficient tools to house the migrants

800M
400M

100   500
0m   200

- gated community
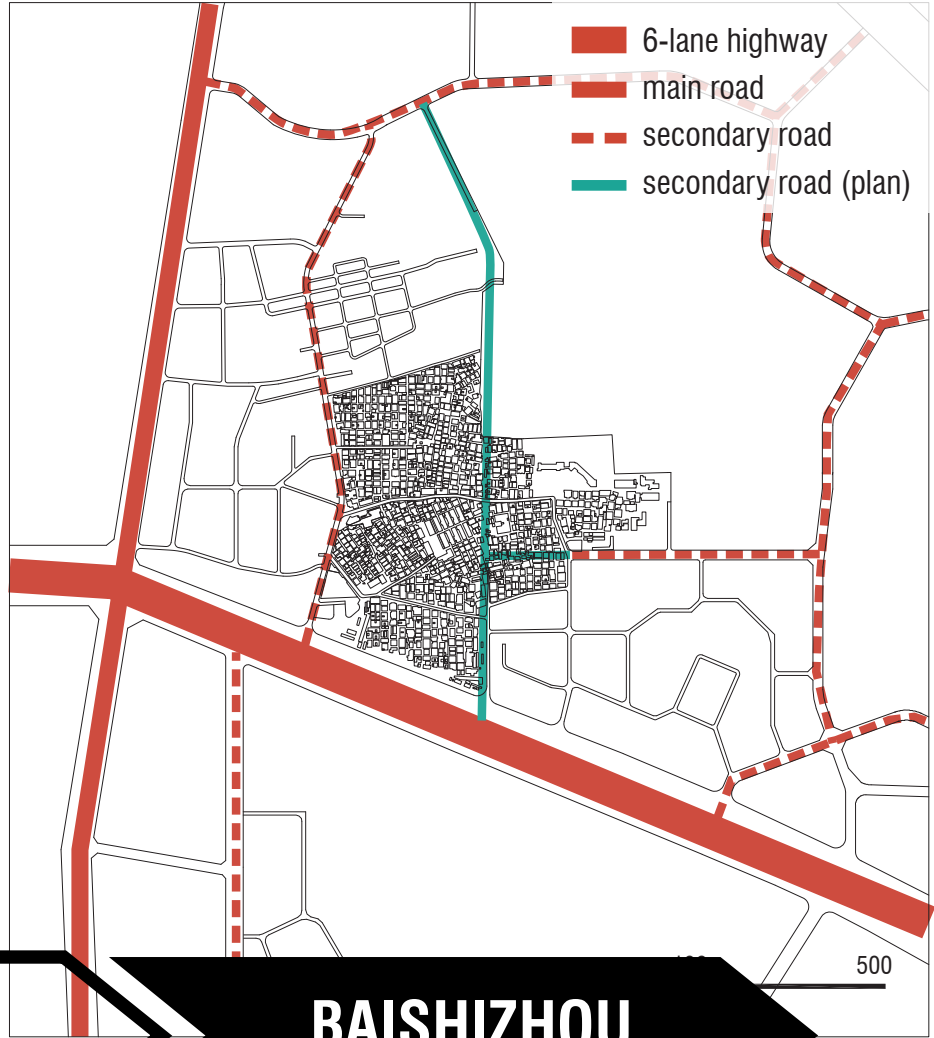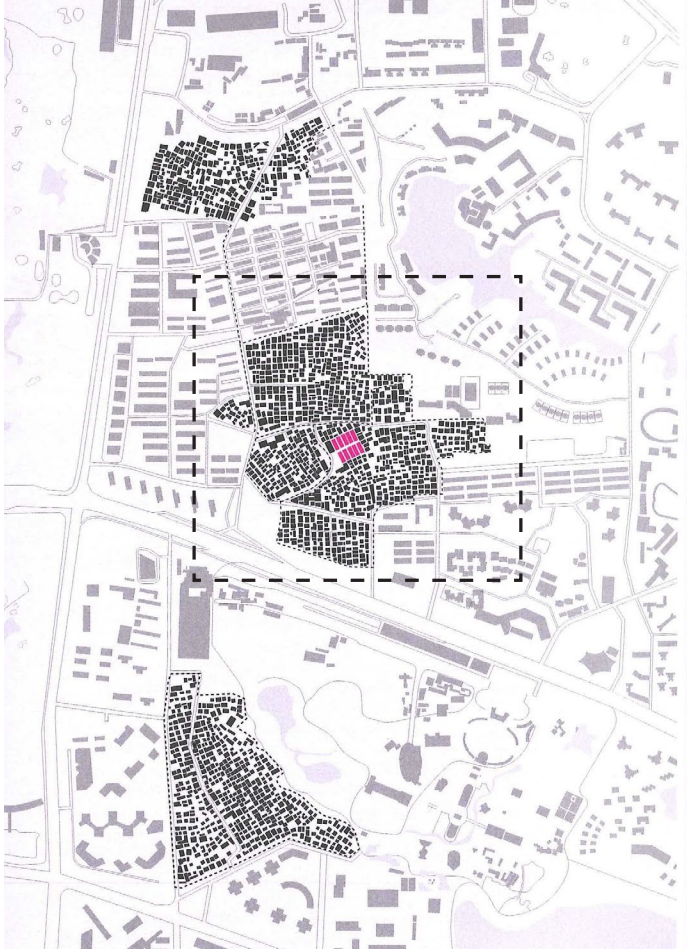- industrial zone
- industrial dormitory
- primary school
- commercial center
- other urban village
- theme park

100   500
0m   200

- 6-lane highway
- main road
- secondary road
- secondary road (plan)

500

- public transit
- **B** bus stops
- **M** metro station

100   500
0m   200
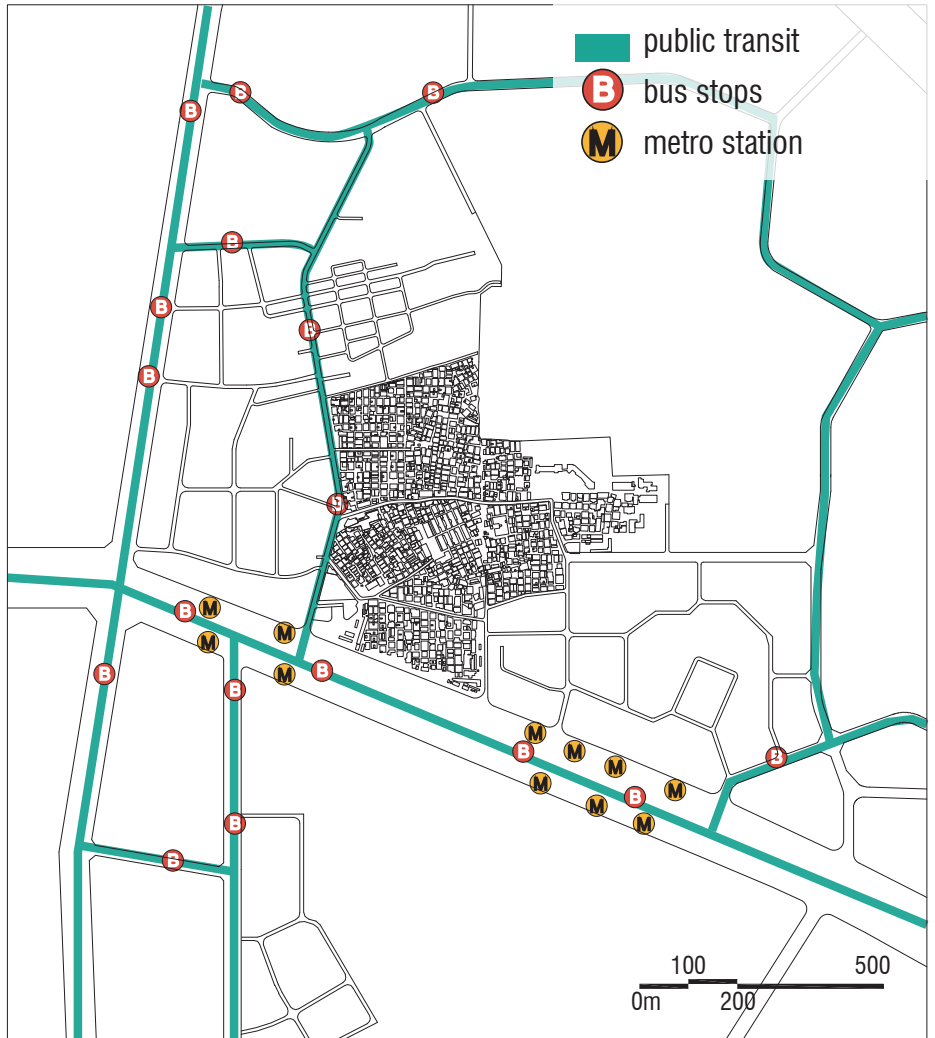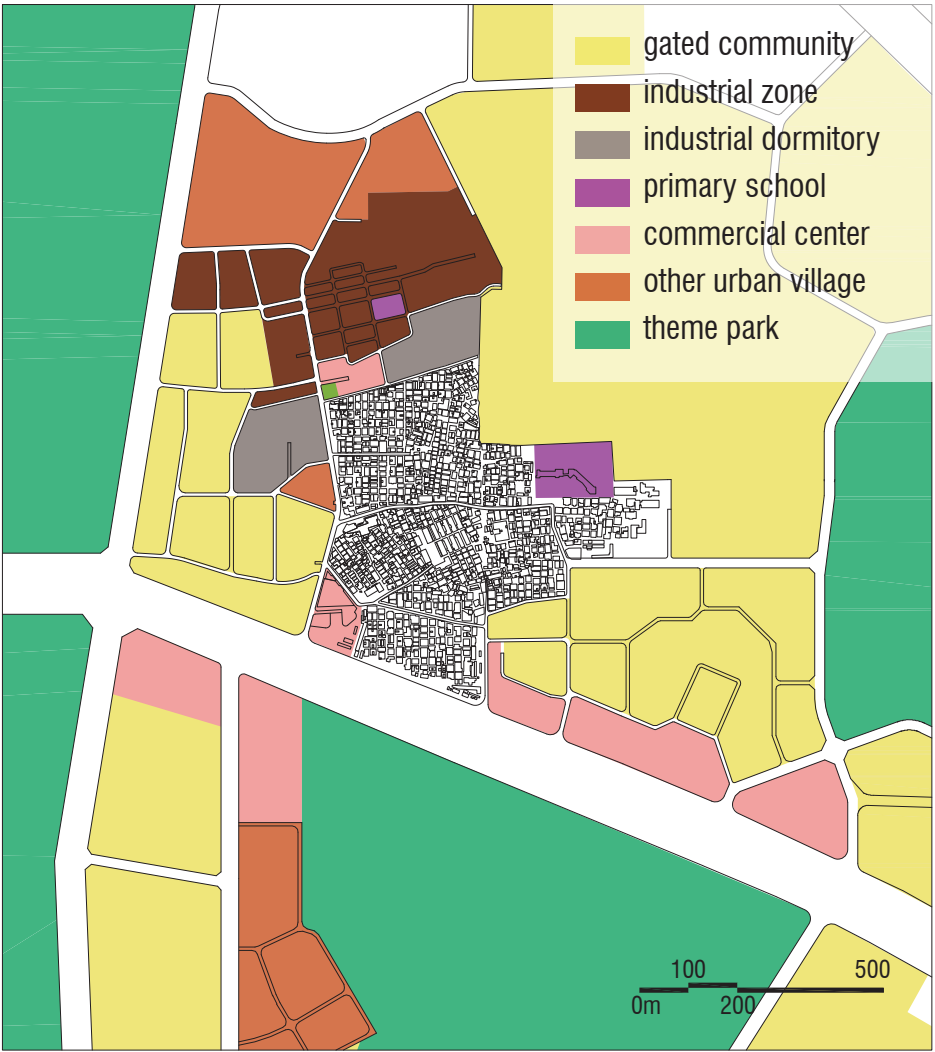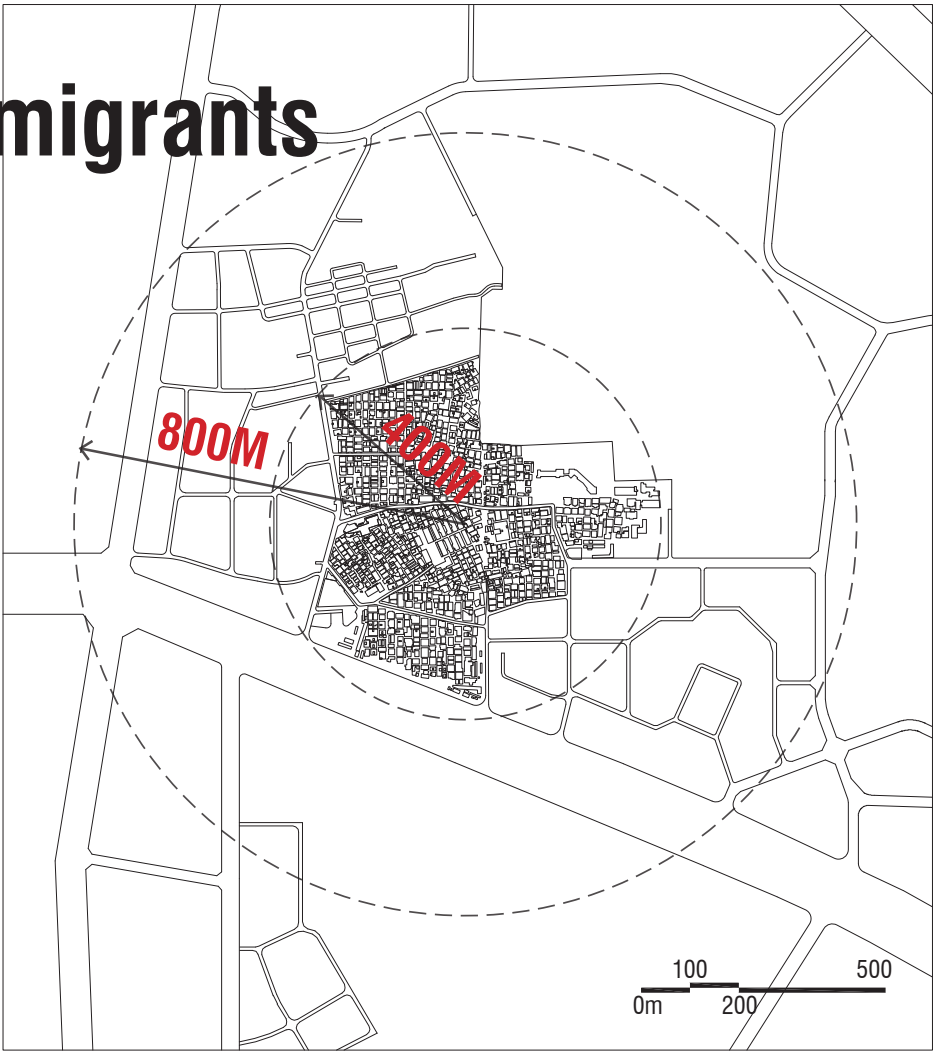
Demolition-redevelopment pressure

31,031/m2

30RMB/m2/mon

64,650/m2

239,526/m2

30RMB/m2/mon

20,400/m2
26,568/m2

90,000/m2
25,239/m2

26,954/m2
26,066/m2

34,645/m2

25,668/m2

24,277/m2

30,052/m2

47,429/m2

30RMB/m2/mon

22,509/m2

49,159/m2

39,807/m2

62,589/m2

47,224/m2

URAN VILLAGES

GATED COMMUNITY
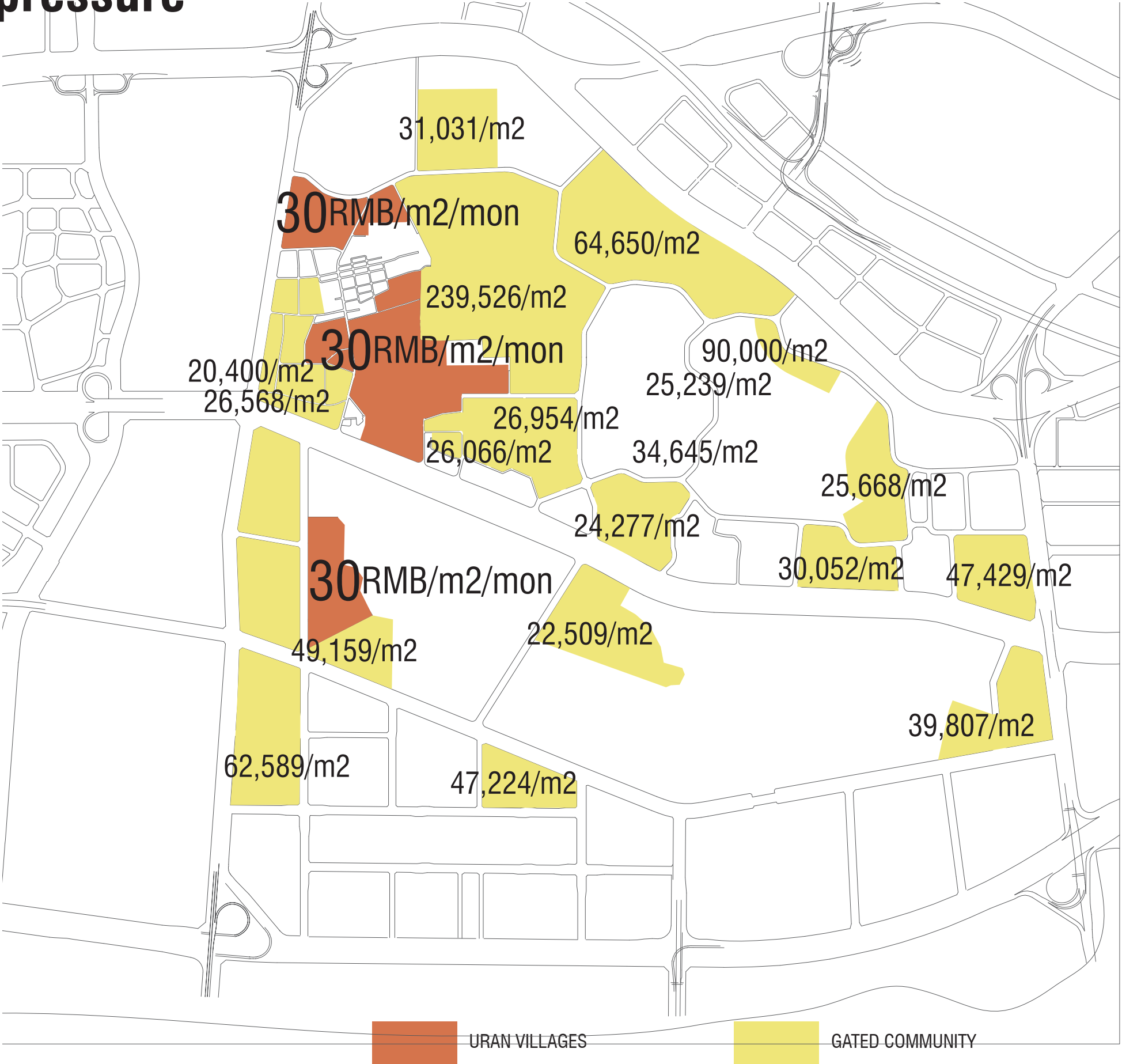
Dynamic self-organizing system in BAISHIZHOU

BASIC HUMAN NEEDS ← threaten **SPATIAL PROBLEMS**

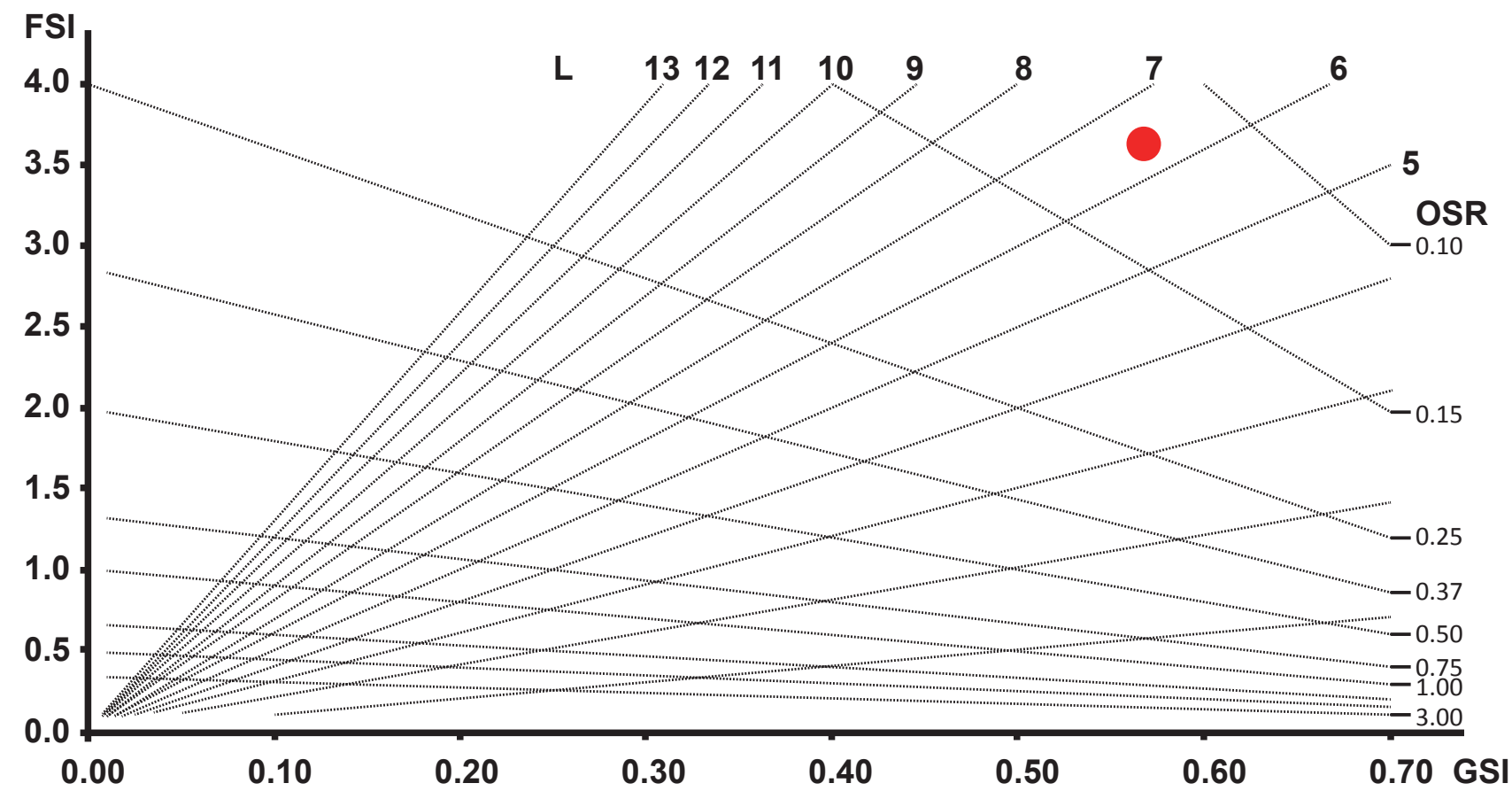| BASIC HUMAN NEEDS	SPATIAL PROBLEMS
temporary escape	extremely high density
experience nature	insufficient public space
physical exercise	unorganized public-private interface
tension release	homogenous alley
privacy	handshake buildings
security and safety	building with bad technical problem
affiliation and belonging	problematic dwelling layout
social recognition and status	isolated network

INTRODUCTION THEORETICAL FRAMEWORK LIVING ENVIRONMENT

EXTREMELY HIGH DENSITY

FSI=3.6   GSI=0.57   L =6.3   OSR=0.12

INSUFFICIENT PUBLIC SPACE NETWORK

car lane
pedestrian
market street
snooker
well
square
exercise facilities

0m   20   50   100   200
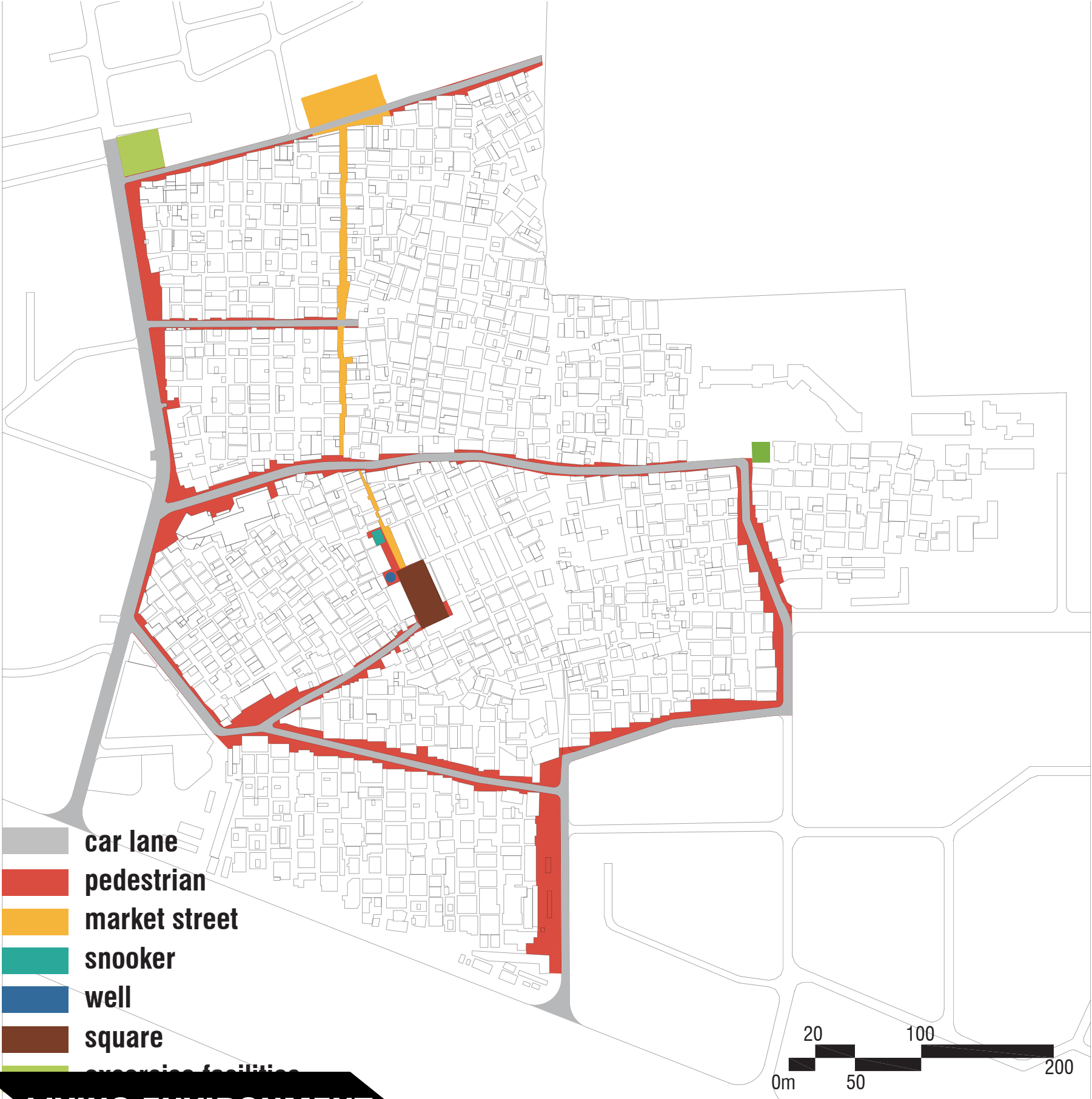
ACTIVITIES IN THE PUBLIC SPACE NETWORK

pedestrian and car lane
car lane: dead end, low connectivity with the surrounding urban network, bad quality.

excercise facilities
people show the desire of physical exercise.

well
small groups of women gather, washing the

market street
pedestrian and market street: be companied with commercial frontage, which with similar spatial form and neccessary consumer goods. There are only necessarily activities (e.g. going to school

snooker
one of few recreation choice in BAISHIZHOU.

square
the only square in BAISHIZHOU.small bunisee at daytime, night market at night.

UNORGANIZED PUBLIC-PRIVATE INTERFACE

HOMOGENOUS ALLEY

local needs for the outdoor space? ➔

'HANDSHAKE' BUILDINGS

BUILDING WITH BAD TECHNICAL QUALITY
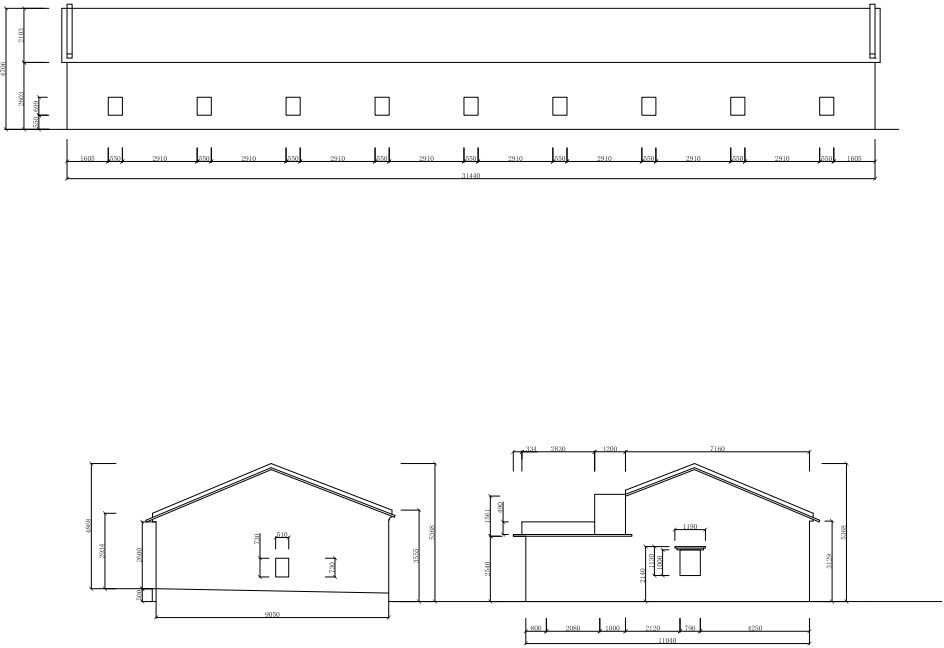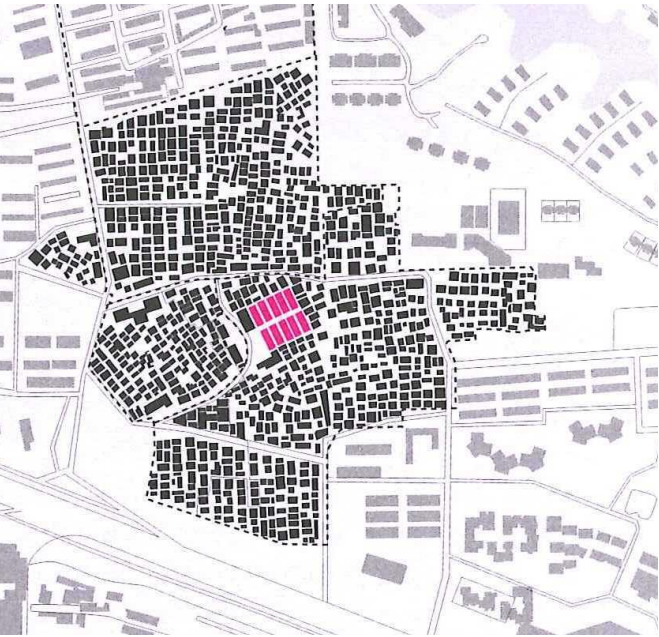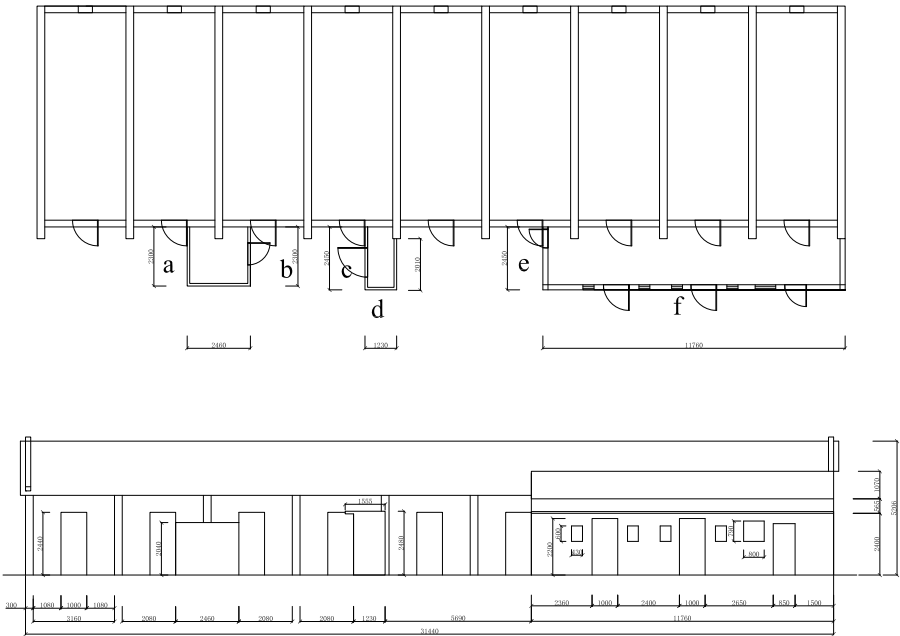
PLAN AND ELEVATION OF OLD VILLAGE BUILDING

INTRODUCTION

THEORETICAL
FRAMEWORK

LIVING ENVIRONMENT

PROBLEMATIC DWELLING LAYOUT
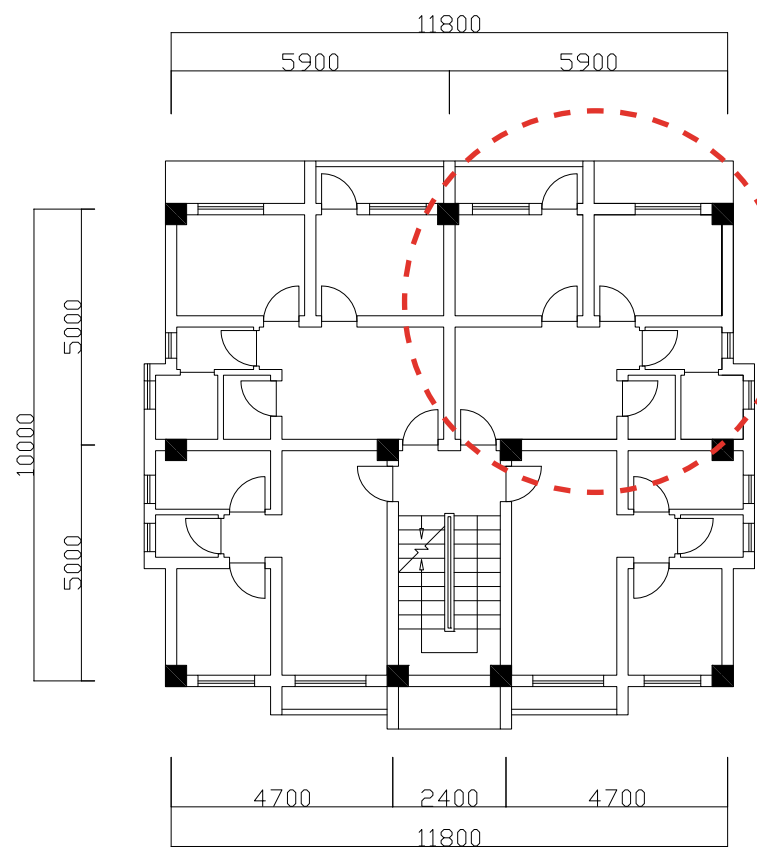
FLOOR PLAN OF TYPICAL HOUSING STOCK
IN URBAN VILLAGES

UNIT PLAN BEFORE

灶台
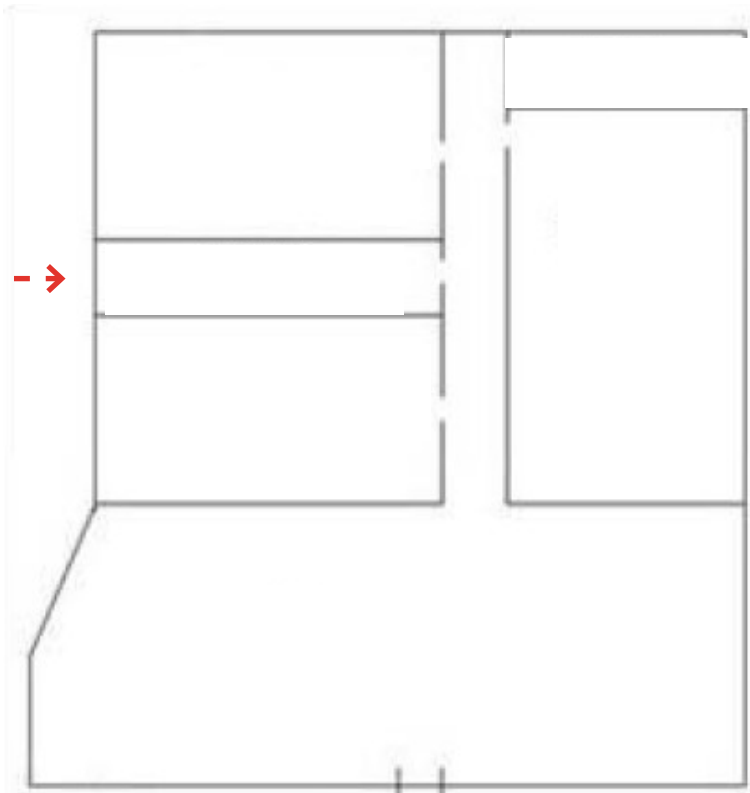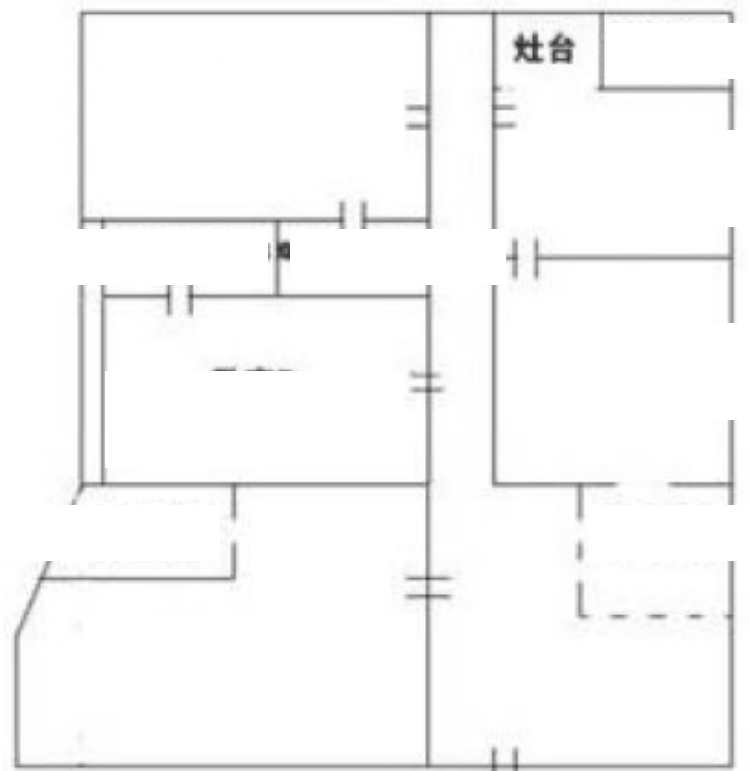
UNIT PLAN AFTER

INTRODUCTION   **THEORETICAL FRAMEWORK**   **LIVING ENVIRONMENT**

ISOLATED NETWORK

fence
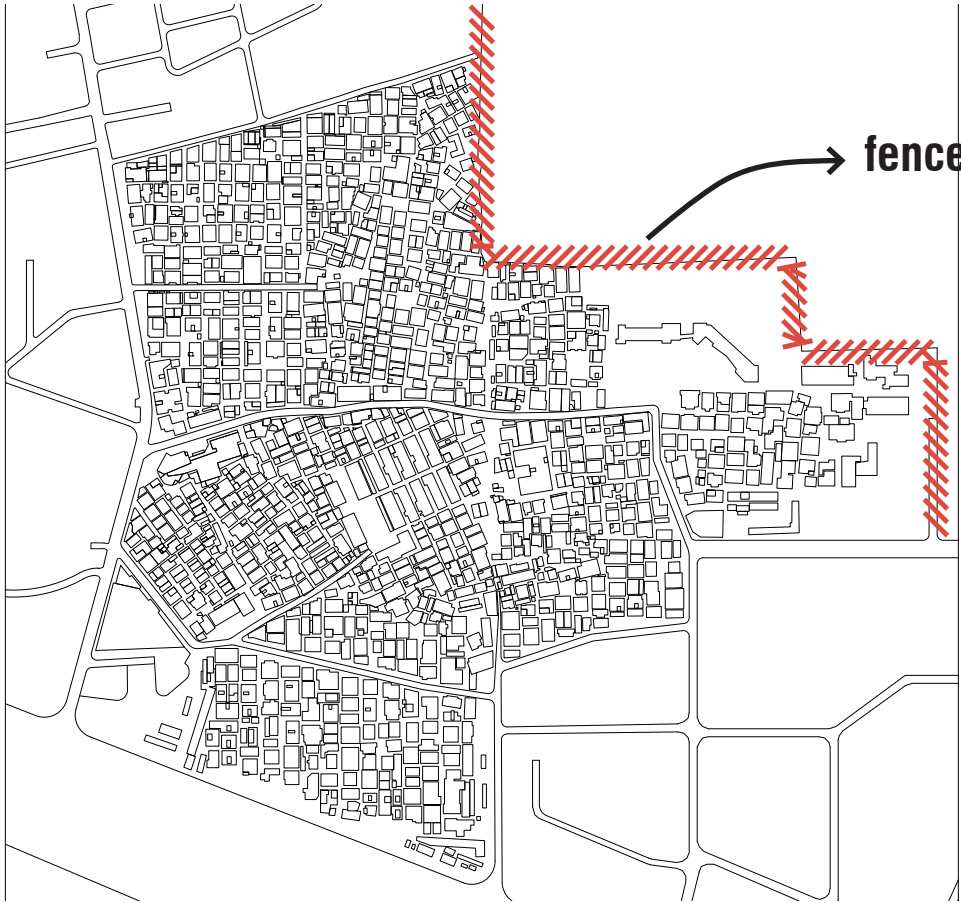
Conflict between public interest and private interest

BUILDING OWNERSHIP
LAND USE RIGHT

INDIVIDUAL

house based land

LAND OWNERSHIP   LAND OWNERSHIP

collectivep land

STATE-OWNED   COLLECTIVE-OWNED
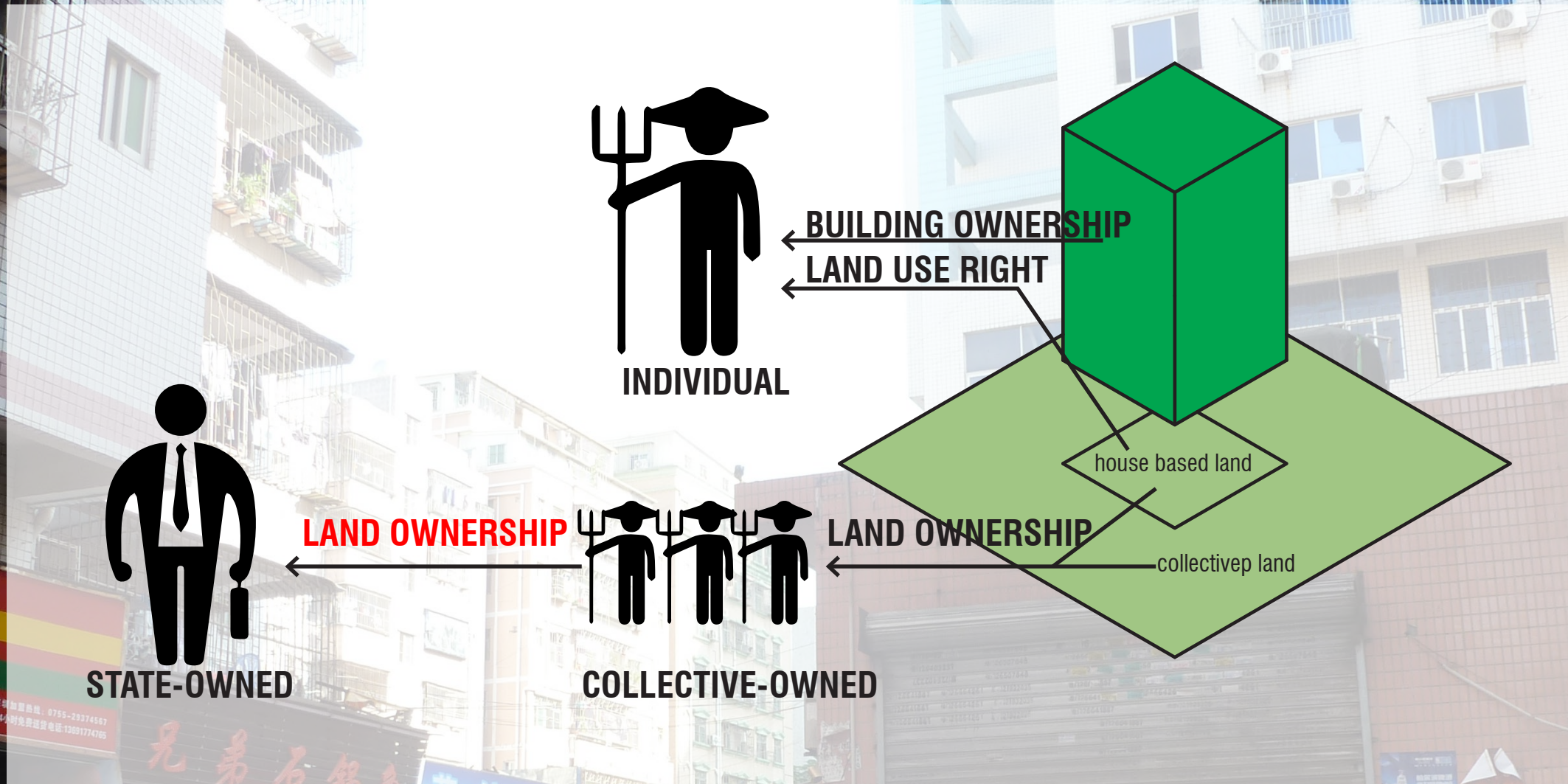
INTRODUCTION   THEORETICAL FRAMEWORK   SELF-ORGANIZING SYSTEM

Lack of effective regulation and maintenance

霞時裝

HAORIZI 好日子烟茶酒行 好日子
天天都是好日子
中国驰名商标

沙河街
拍摄日期: 2013.05

Lack of tenant management
leave opportunity to the criminals and housing speculators

Lack of tenure security

Informal but efficient housing trade

Dynamic small property right house trade (sale)

Low-income citizens who want to own a house;
housing speculators

HOUSING FOR SALE

VILLAGER

Housing use right trade-long term (rent)

informal sectors established by groups of migrants

HOUSING FOR RENT

Housing use right trade-short term (rent)

individual migrant
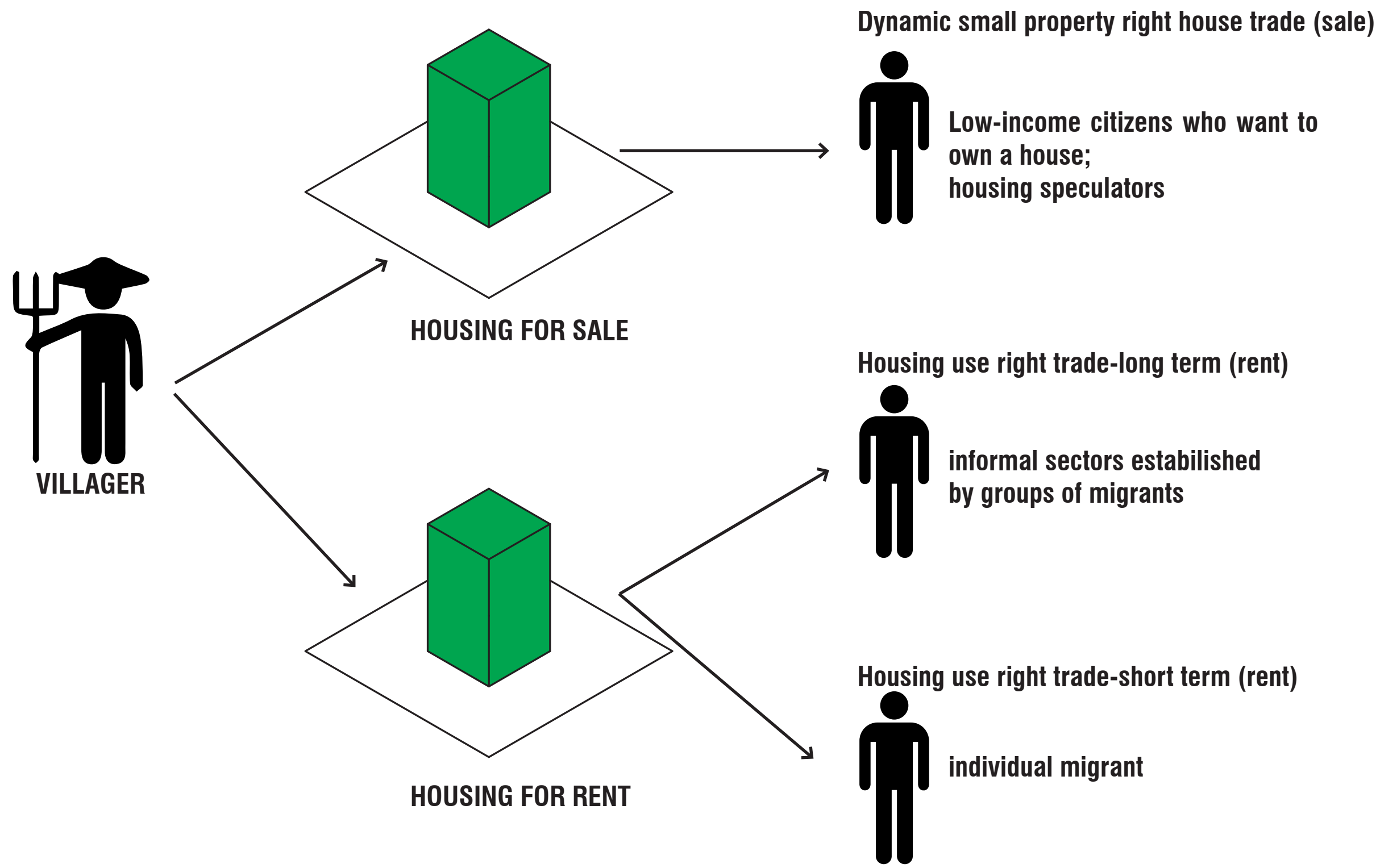
Informal but vibrant economic activities

Informal but necessary public facilities

Job opportunities inside the urban villages

电化工
TEL 86395095

路路顺维修店

华信水业

4. STRATEGY

visions and partnerships at different scale

| city scale | district scale | neighborhood scale |

upgrading self-organizing system

| first phase | second phase |

actions of living environment improvement

infrastructure

public space

housing

→

block design
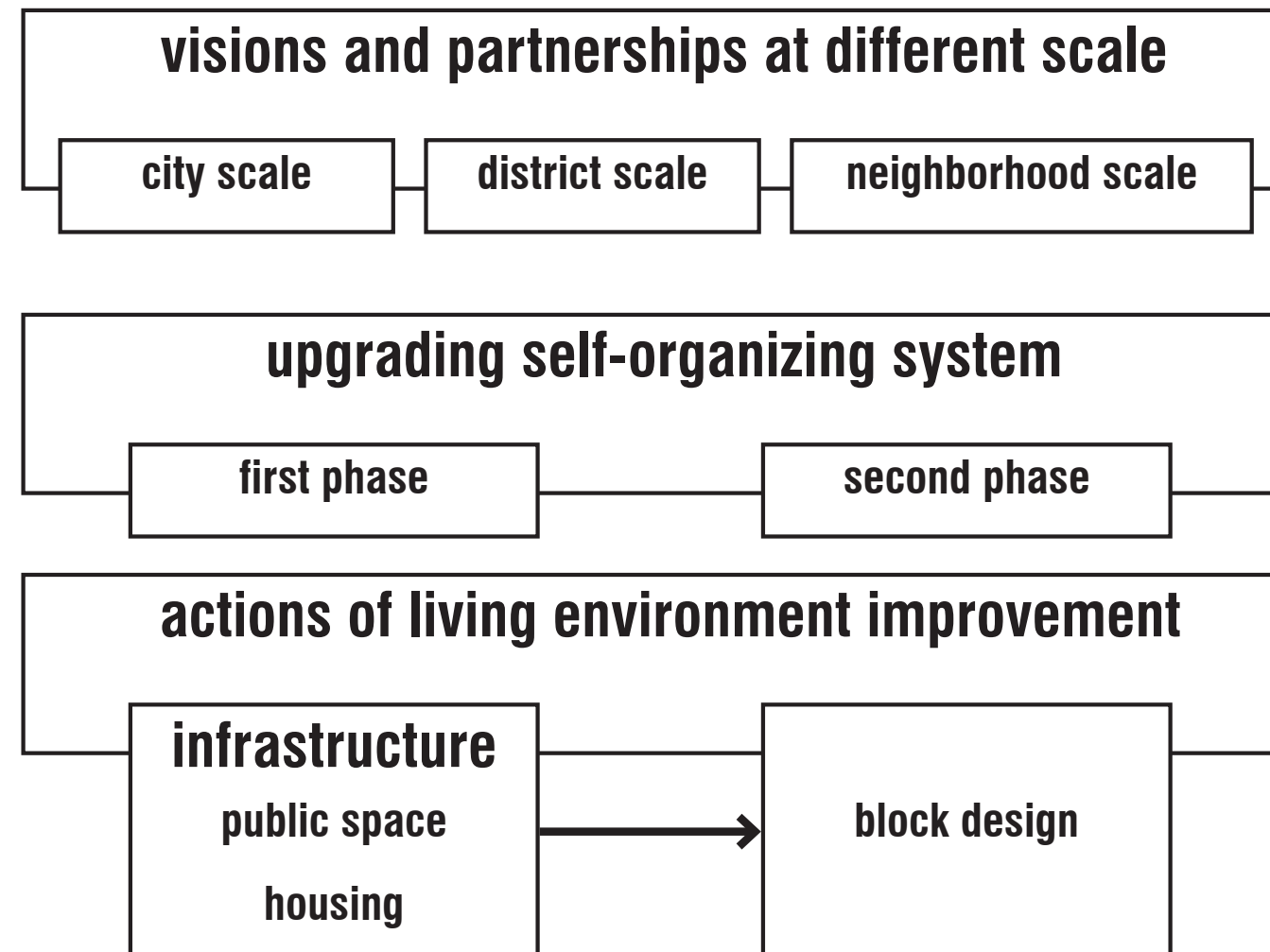
CITY SCALE

during transitional period

after transitional period

URBAN VILLAGES

SOCIAL HOUSING
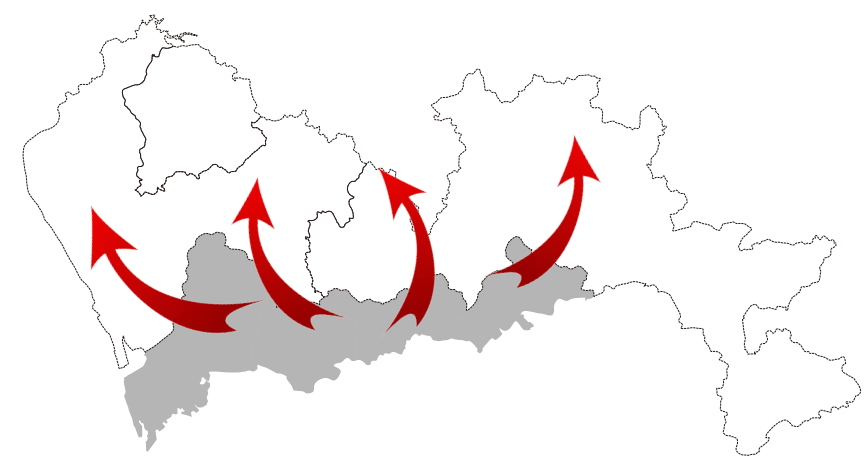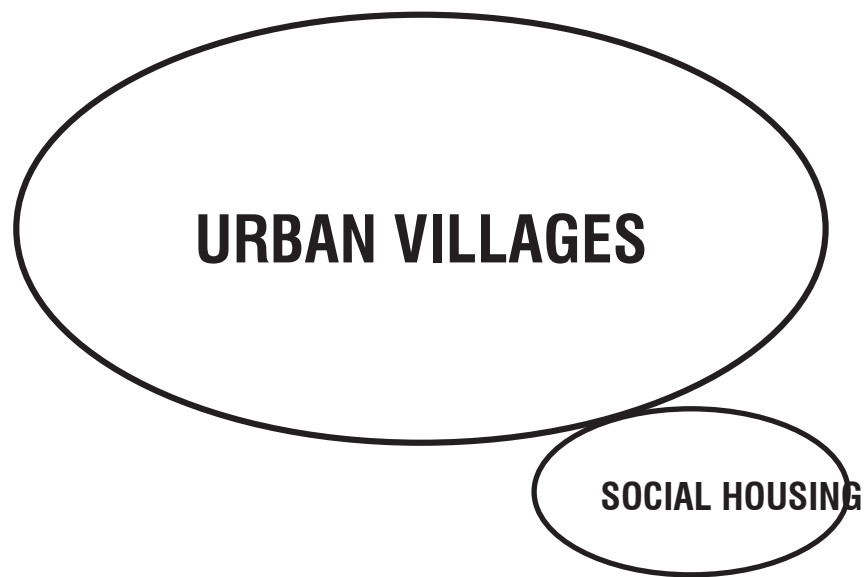
Role of housing the migrants and low-income citizens
During SHENZHEN transitional period

URBAN VILLAGES

SOCIAL HOUSING
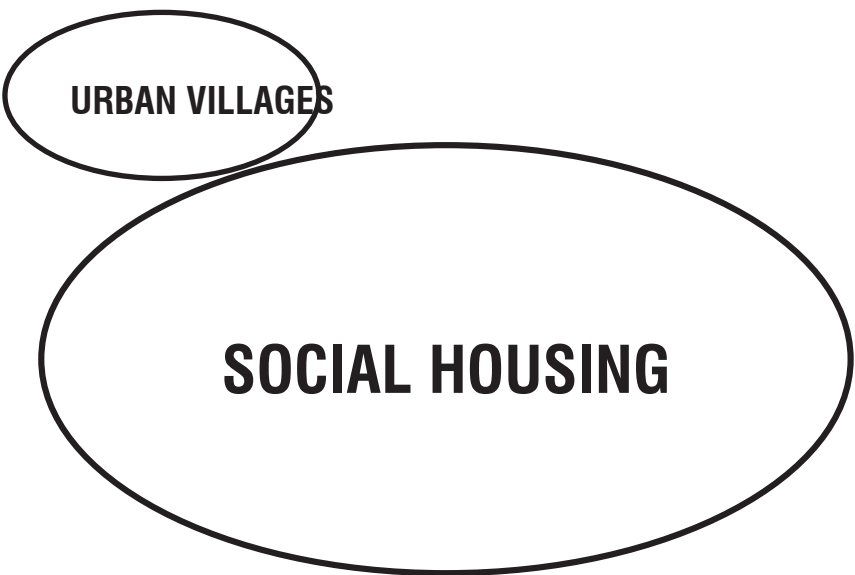
Role of housing the migrants and low-income citizens
After SHENZHEN transitional period

PARTNERSHIP

central government

provincial government

municipal government
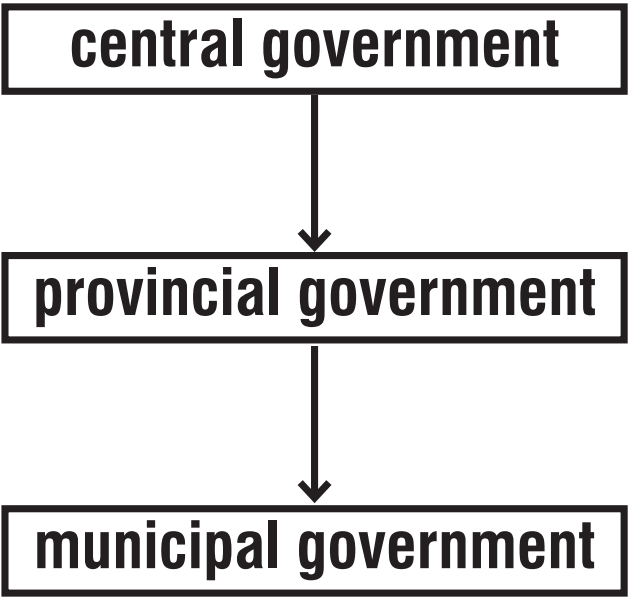
DISTRICT SCALE
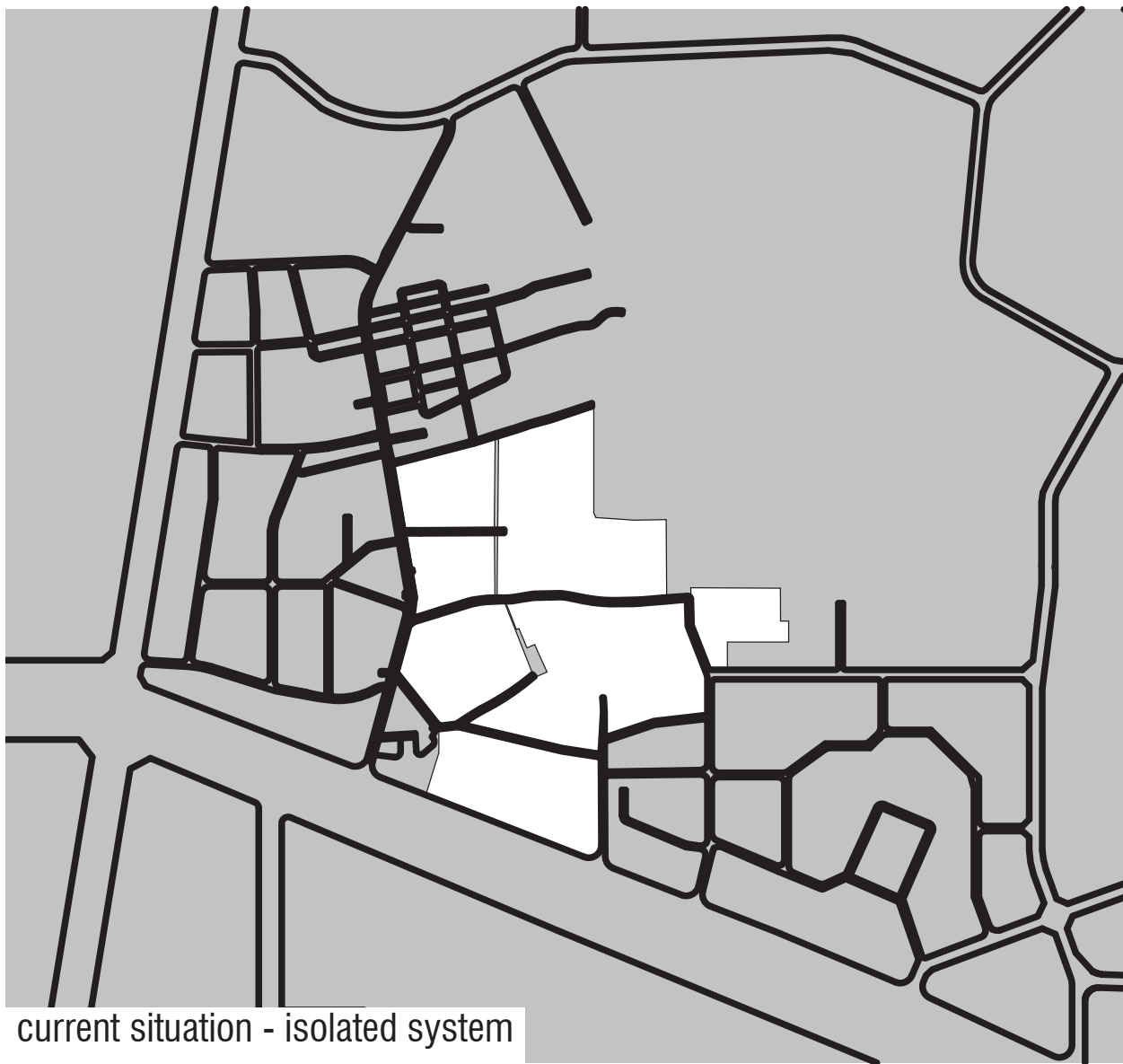
current situation - isolated system

vision - co-development with surrounding area

```
                      municipal government
                              |
                              v
                      district government
              _____^^^_____
             /            /         \            \
      street offices   formal sectors of   joint-stock   informal sectors
                       surrounding area     company       in baishizhou
```

during transitional period

after transitional period

housing amount to
house the migrants

housing amount to
house the migrants

PARTNERSHIP

joint-stock
company

villagers

tenants

public sector

formal market
sector

informal sectors
in baishizhou

INDIVIDUAL

BUILDING OWNERSHIP
LAND USE RIGHT

house based land

LAND OWNERSHIP   LAND OWNERSHIP

collectivep land

COLLECTIVE-OWNED

STATE-OWNED

villager

villager +
village committee

villagers
developers

SELL

Low-income citizens who can
not afford formal houseing;
housing speculators

RENT
LONG-TERM

informal sectors established
by groups of migrants

RENT
SHORT-TERM

individual migrant

eliminate the threat to
livable neighborhood

PURPOSES

guarantee the
environmental upgrading
progress smoothly

retain the role as
housing the migrants
after upgrading

STEP1. Building ownership OR building use right acquisition

STEP2. Living environment improvement

STEP3. Sublease to the tenants

regulation by public sector

housing for sale

housing ownership:public sector   housing ownership:public sector

step 1   current housing   step 2   upgrading housing   step 3 sublease register

VILLAGER

housing for rent

housing ownership: villagers   housing ownership: villagers
housing use right: public sector   housing use right: public sector

step 1   current housing   step 2   upgrading housing   sublease register step 3

TENANT

regulation by public sector

housing for sale

housing ownership:public sector

housing ownership:public sector

step 1 **step 2**

current housing

upgrading housing

step 3

sublease

register

housing for rent

step 1 **step 2**

current housing

upgrading housing

VILLAGER

TENANT

The upgrading of infrastructure network (around the block)
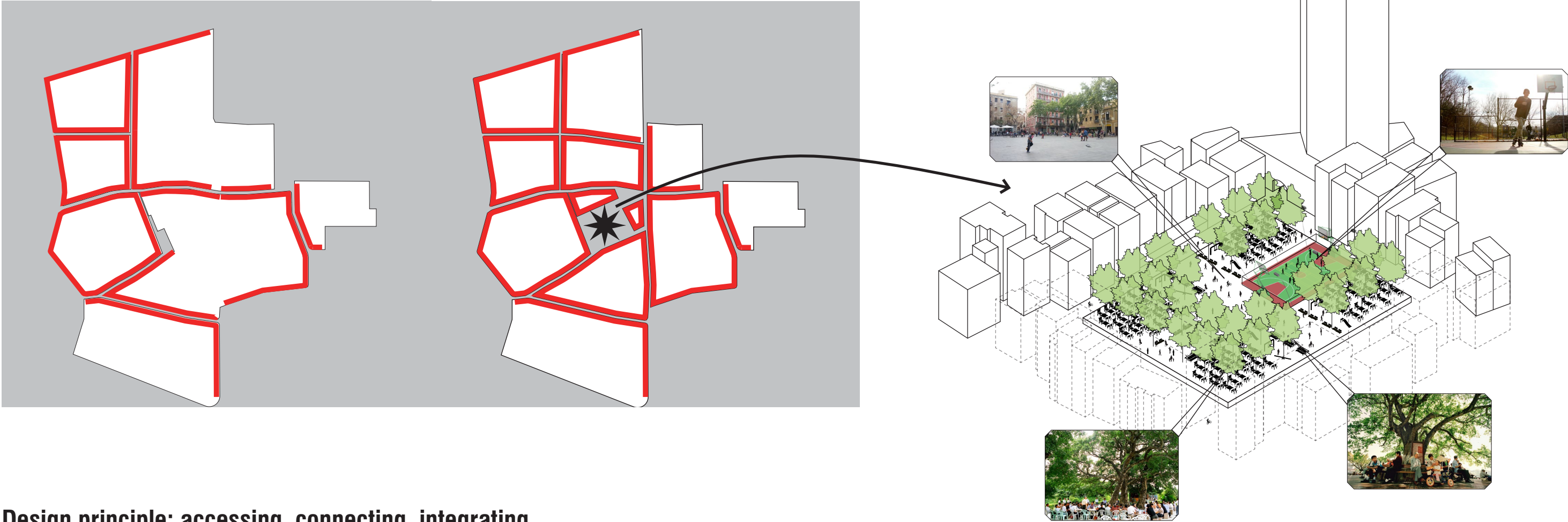
Design principle: accessing, connecting, integrating

Integration of different actions:
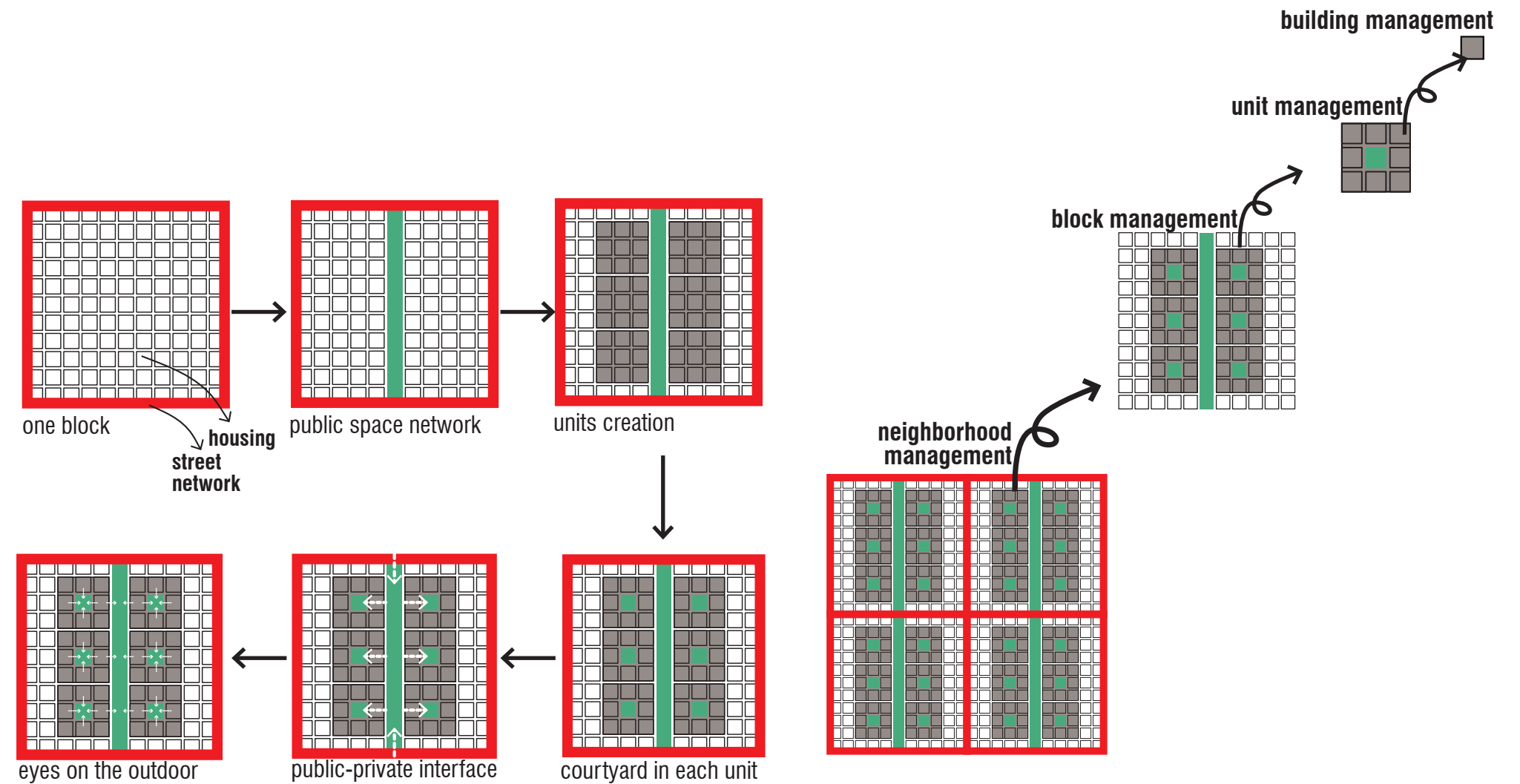
Partnership of stakeholders:

The creation of public space network (go through the block)

one block

housing street network

public space network

units creation

courtyard in each unit

public-private interface

eyes on the outdoor

neighborhood management

block management

unit management

building management

Design principle:

different zones of privacy
public-private interface
eyes on the outdoor space
increase physical exercise and nature experience

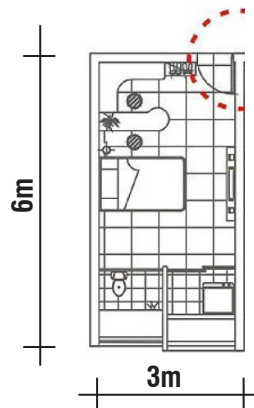**Integration of different actions:**

Partnership of stakeholders:

Adapting housing

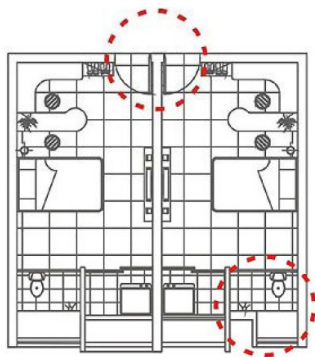single unit plan

small and flexible design

6m

3m

integrate 2 single units

one bedroom & one living room
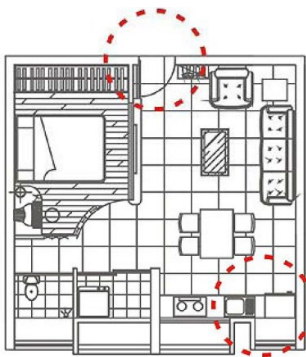
OR

integrate 3 single units
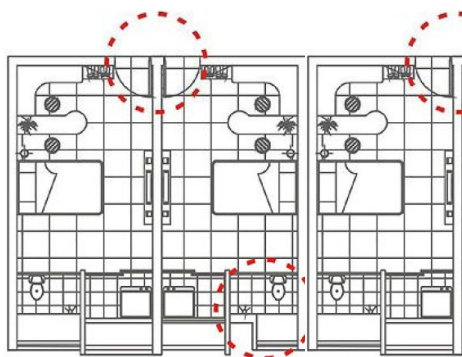
two bedroom & one living room
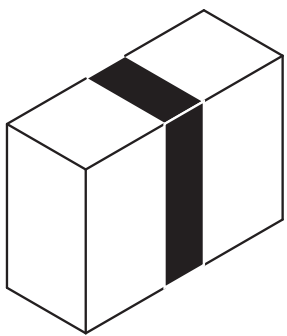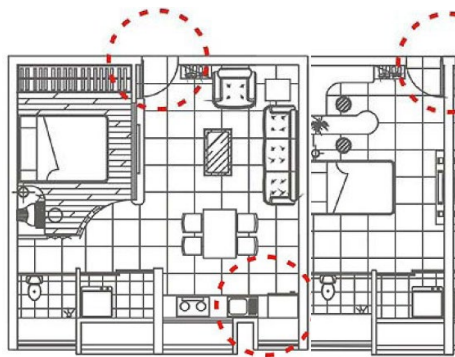
buildings integration +
internal layout redesign

window face to window

window face to green wall +
privatized alley to garden
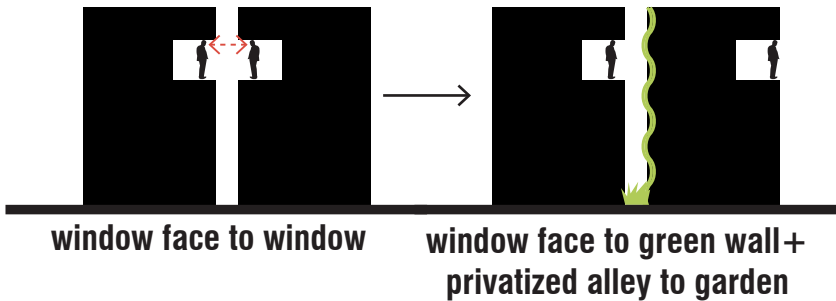
Design principle:

**increase the single units,
Adaptive housing units.
privacy,
ventilation and lighting**

Integration of different actions:

**1. buildings integration
2. building facade ajustment
3. internal layout redesign**

DESIGN PROCESS
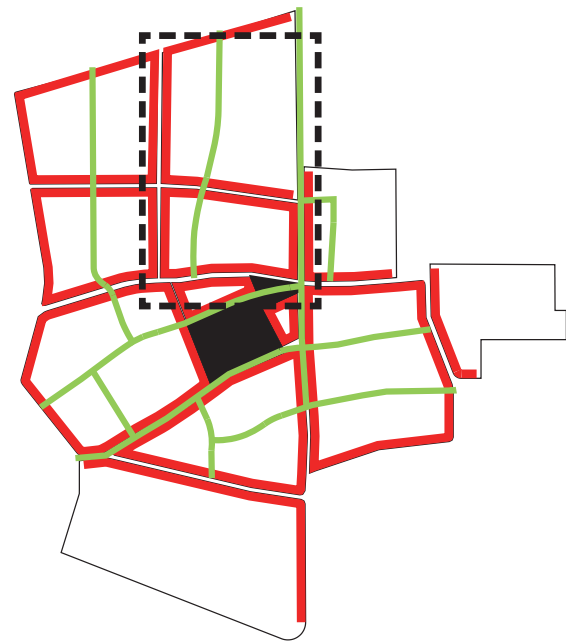
Block selection

1 **Demolition of buildings with technical problems**

2 **New network intervention**
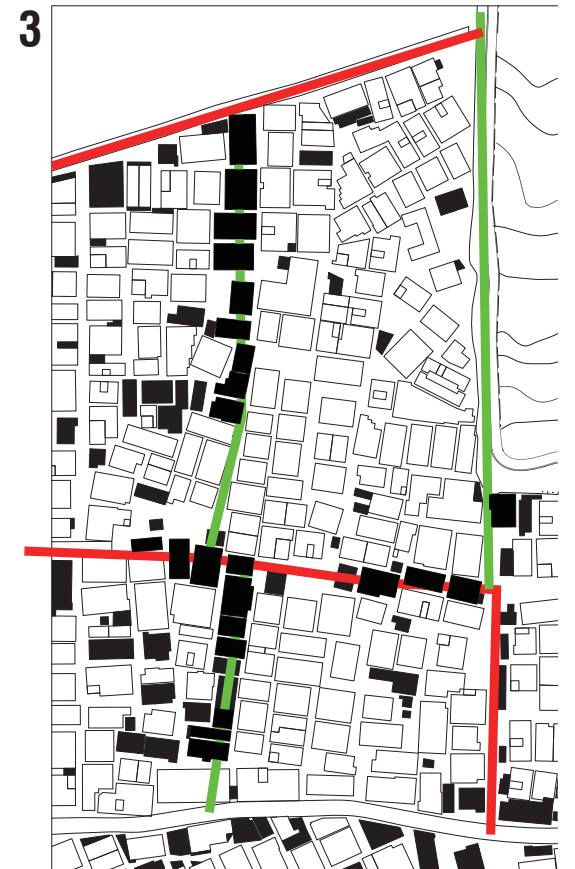
3 **Demolition of buildings on the new network**

7 **new spatial structure**

Legend:
- renewal unit
- new unit
- commercial street
- greenway on the edge
- intermidiate greenway
- readable entrance
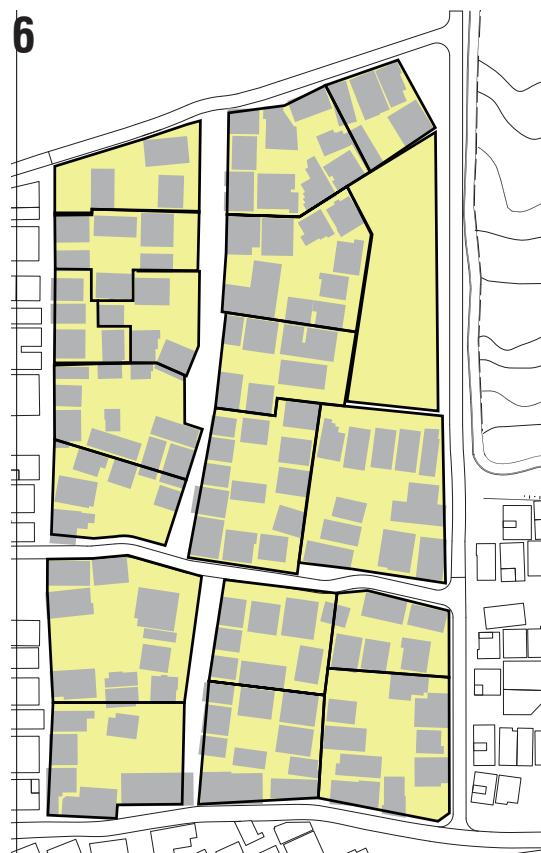
6 **Remaing buildings**

5 **Demolition of buildings in each group**

4 **Grouping remaining buildings**

INTRODUCTION | THEORETICAL FRAMEWORK | BAISHIZHOU | **STRATEGIC LOCATION DESIGN**

PLAN

GROUND FLOOR SPATIAL INTERVENTION

10 50
0m   100
20

- ■ groundfloor indoor
- ⬚ remaining buildings
- ■ fill with vertical green
- ▨ fill with privatized garden
- ⬚ area with roof

GROUND FLOOR FUNCTION

10 50
0m   100
20
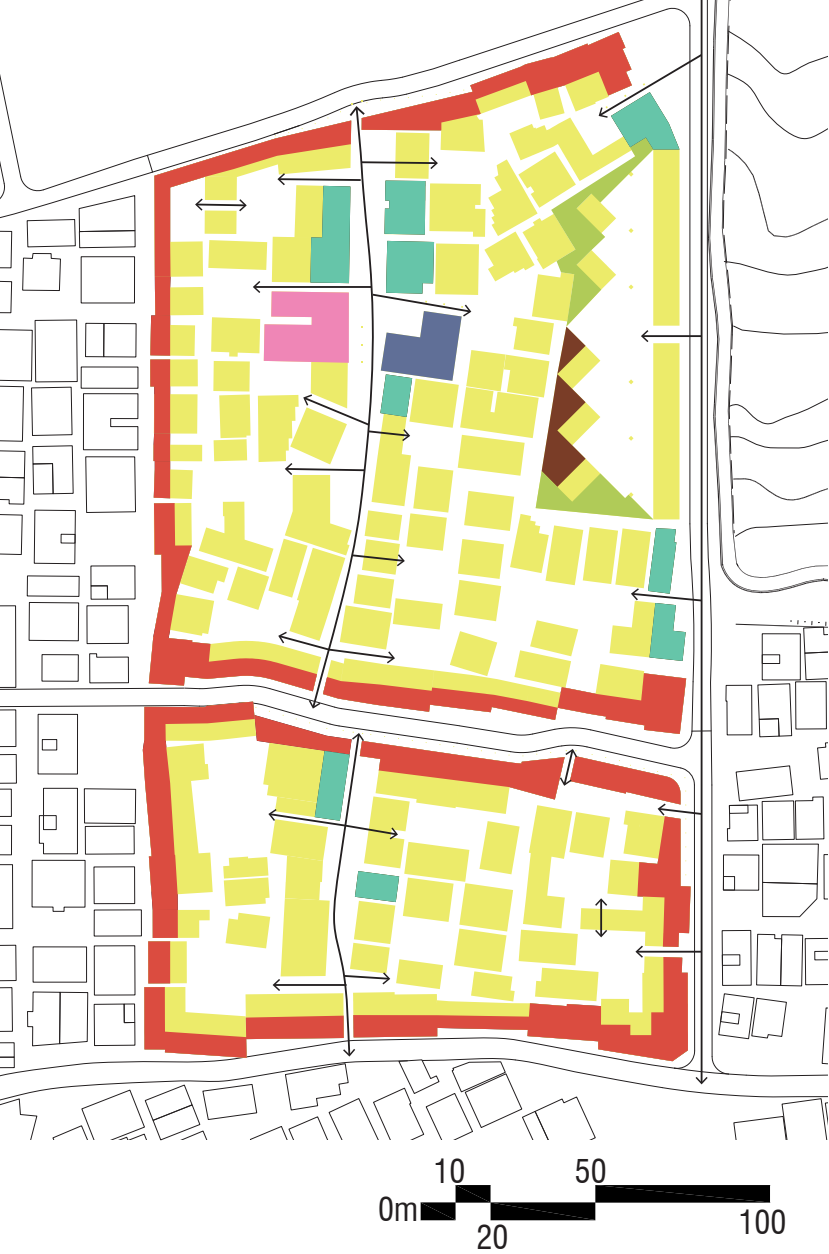
- ■ commercial
- ■ residential
- ■ workshop with showcase
- ■ neiborhood center
- ■ bike room
- ■ green house

TOP PLAN

10 50
0m   100
20

- ■ new building
- ■ remaining building
- ■ building with one floor
- ⬚ area with roof

the New construction should balance the demolition

INTRODUCTION THEORETICAL FRAMEWORK BAISHIZHOU STRATEGIC LOCATION DESIGN

Specific actions in strategic locations

NEW BUILDING

new construction

roof garden

private frontyard

REMAINING BUILDING
upgrade internal designp

INFRASTRUCTURE

CAR LANE +
PEDESTRAIN + GREEN

**GROUNDFLOOR
INTERVENTION**

groundfloor integration

readable entrance

outdoor teahouse

arcade with commerce

shop window

showcase of workshop

INTRODUCTION THEORETICAL FRAMEWORK BAISHIZHOU STRATEGIC LOCATION DESIGN

Specific actions in strategic locations

NEW BUILDING

new construction

REMAINING BUILDING
upgrade internal design

GROUNDFLOOR
INTERVENTION

groundfloor integration

readable entrance

arcade with commerce

shop window

roof restaurant

INFRASTRUCTURE
car lane, pedestrain

Specific actions in strategic locations

REMAINING BUILDING

NEW BUILDING

buildings integration

fill with vertical green

upgrade internal design

new construction

INFRASTRUCTURE

GROUNDFLOOR INTERVENTION

groundfloor integration

readable entrance

small plaza

pedestrian + green

showcase of workshop

leisure facilities on the roof

private frontyard
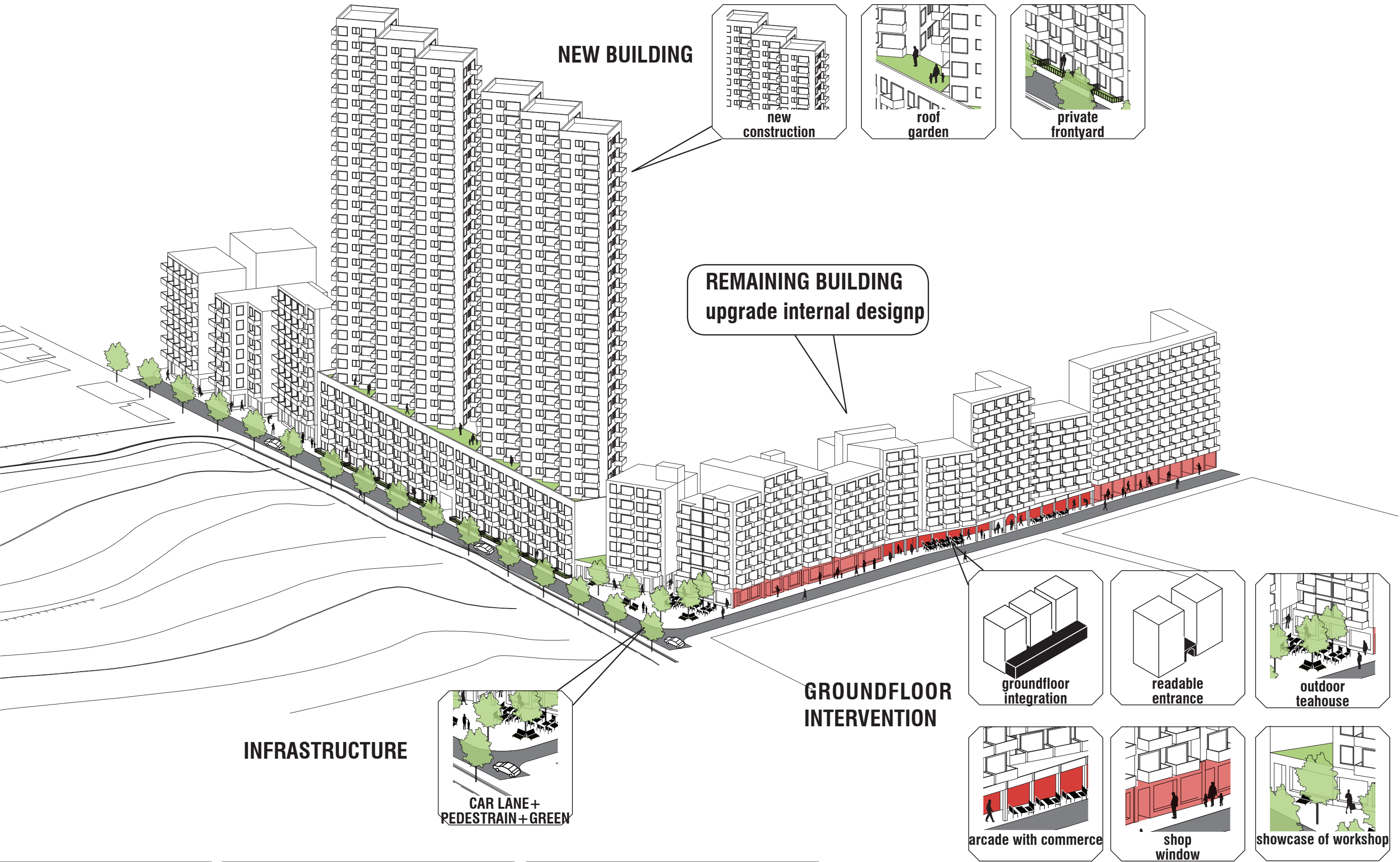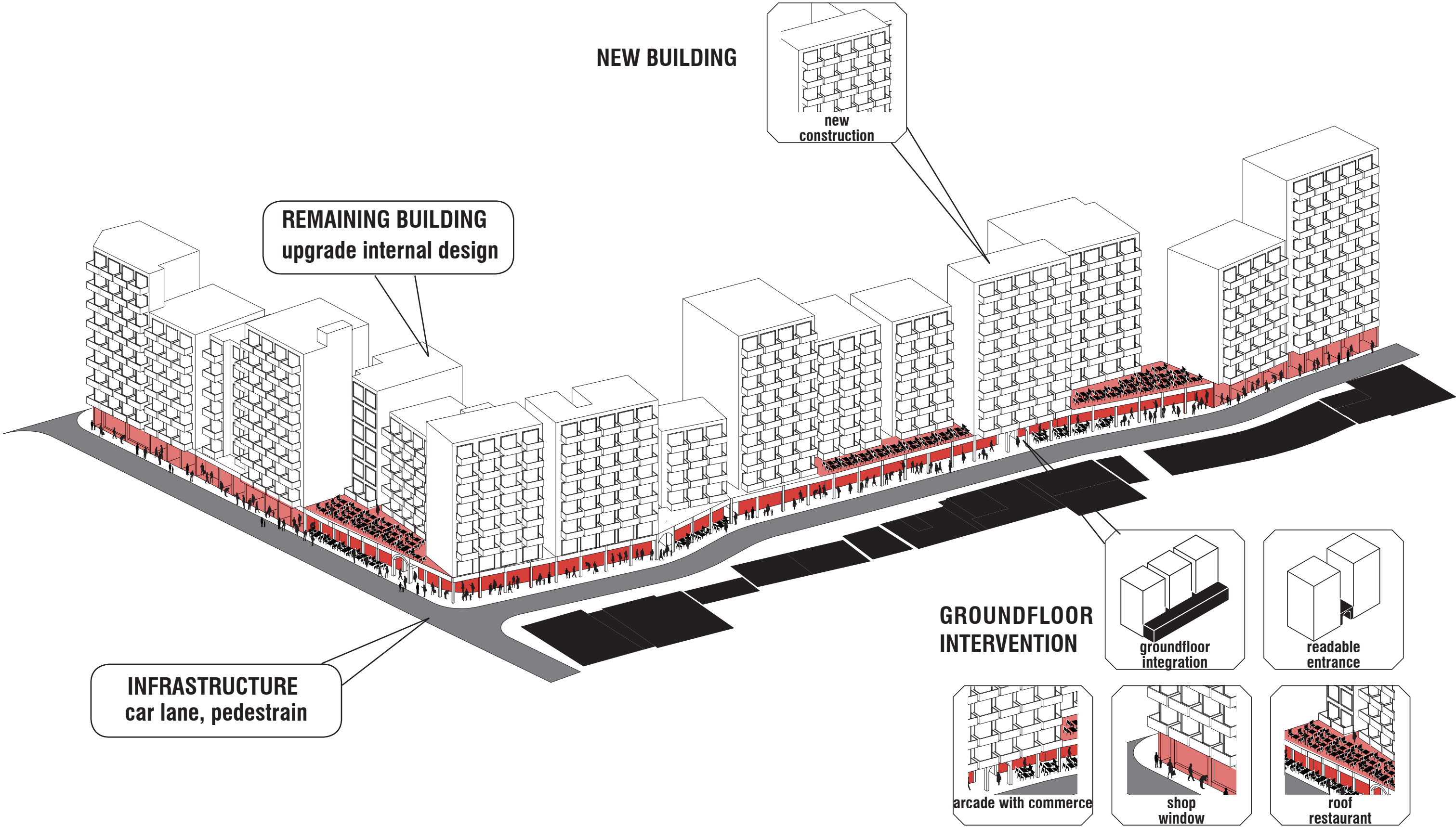
INTRODUCTION > THEORETICAL FRAMEWORK > BAISHIZHOU > STRATEGIC LOCATION DESIGN

Specific actions in strategic locations

COURTYARD INSIDE RENEWAL UNIT

INTRODUCTION   THEORETICAL FRAMEWORK   BAISHIZHOU   STRATEGIC LOCATION DESIGN

5. CONCLUSION

To balance the urban villiage redevelopment, the solution provided by SHENZHEN government is demolishing the urban villages in the central area and replacing with the high-end neighbourhood, then constructing large scale social housing neighbourhoods on the urban fringe to alleviate the affordable housing demand. In SHENZHEN context, the affordable housing demands are mainly from the migrants, which means the social housing can hardly alleviate the affordable housing demand because of the financial, land and institution constrains in the near future.

Therefore, it is still necessary to preserve and upgrade the urban villages then use them as effective tools to house the migrants. But the role of urban villages is not permanent and can be adaptive to the uncertain future. To upgrade the urban villages not only need solutions from spatial aspect, but also need to know the problems and opportunities of the current self-organizing system. The aim of the project is to transform the urban villages into liveable neighbourhoods through improving the living environment and dealing with both the problems and opportunities of self-organizing systems in urban villages, and retain their roles as housing the migrants during SHENZHEN transitional period.

To better deal with the complex stakeholder environment and the forces of the market during the urban villages upgrading process, a comprehensive strategy is require, and this planning approach should deal with the opportunities and problems of the self-organizing system as well as improve the living environment

To better deal with the complex stakeholder environment and the forces of the market during the urban villages upgrading process, a comprehensive strategy is require, and this strategy should deal with the opportunities and problems of the self-organizing system as well as improve the living environment.

The strategy combines visions and partnerships at different scale. upgrade the self-organizing system, the actions of living environment improvement.
Then I choose one block as the strategic location to show how does the actions work together to improving the living environment

This strategy could also be used in other urban villages transformation in the SHENZHEN context.

THANK YOU!