INSIDE-OUT TRANSITION

URBAN VILLAGES TRANSFORMATION STRATEGY IN SHENZHEN CHINA

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

CONTEXT
### Definition of Floating Population

**Space Dimension:** Movements mainly from rural to urban area

**Time Dimension:** More than six months

**Legal Conceptualization Dimension:** Movements not involving a change in household registration

#### Floating Population vs Registered Population in Shenzhen

<table>
<thead>
<tr>
<th>Year</th>
<th>Registered Population</th>
</tr>
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<tbody>
<tr>
<td>1979</td>
<td>8,000,000</td>
</tr>
<tr>
<td>1980</td>
<td>7,000,000</td>
</tr>
<tr>
<td>1990</td>
<td>6,000,000</td>
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<tr>
<td>2000</td>
<td>5,000,000</td>
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<tr>
<td>2006</td>
<td>4,000,000</td>
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<tr>
<td>2007</td>
<td>3,000,000</td>
</tr>
<tr>
<td>2008</td>
<td>2,000,000</td>
</tr>
<tr>
<td>2009</td>
<td>1,000,000</td>
</tr>
<tr>
<td>2010</td>
<td>0</td>
</tr>
<tr>
<td>2011</td>
<td>312,600</td>
</tr>
</tbody>
</table>

#### Factors Driving Population Growth in Shenzhen

Economic growth and massive investment in Shenzhen have generated a number of job opportunities and have attracted many migrants from various areas in China. Recent estimate indicates that Shenzhen had a population of 13 million in year 2012. This figure includes 3.04 million registered population (Hukou population) whose residence registration (Hukou) was in Shenzhen and 10.07 million temporary population (non-Hukou population) whose residence registration was not in Shenzhen but had stayed in Shenzhen for over six months.

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**

- **Average**
- **Luohu**
- **Futian**
- **Nanshan**
- **Yantian**
- **Baoan**
- **Longgang**

**Unit**: yuan/m²

URBAN VILLAGES - MAIN ROLE OF HOUSING THE MIGRANT

CONTEXT

- Workers Dormitory
- Affordable housing
- Commercial housing
- Self-constructed housing by Enterprise

Housing category and proportion

43% Urban Villages
25% Commercial housing
15.8% Workers Dormitory
6.2% Affordable housing
10% Self-constructed housing by Enterprise

Urban Villages - Main role of housing the migrant

Residents Floor Area of urban villages in special economic zone
Residents Floor Area of total residents Floor Area of Shenzhen: 43%
Residents Floor Area of urban villages in Shenzhen west
Residents Floor Area of total residents Floor Area of Shenzhen: 8.6%
Current approach balance urban villages redevelopment and affordable housing demand.
CON唰STRAINTS OF CURRENT APPROAC瀚

1. Conflict between huge affordable housing demand and government’s financial constraints
2. Conflict between affordable housing location demand and government’s land constraints
3. Institutional constraints

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Figures:
- Fig 1.9 The completed amounts of affordable housing in Shenzhen from 2006-2010.
- Fig 1.10 The plan of affordable housing in Shenzhen from 2011-2015.
- Fig 1.11 SHENZHEN development during transitional period.
To preserve and upgrade the urban villages then use them as effective tools to house the migrants, especially during the SHENZHEN transitional period.
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?
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?

Methodology:

- **Problem Field**: 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
  - Challenges 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**
2. THEORETICAL FRAMEWORK
INTRODUCTION

SELF-ORGANIZING SYSTEM

villager

villager+

village committee

villagers

developers

villagers

rich migrants
Low-income citizens who cannot afford formal housing; housing speculators

Informal sectors established by groups of migrants

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

INTRODUCTION

THEORETICAL FRAMEWORK

BAISHIZHOU
Efficient tools to house the migrants

INTRODUCTION
THEORETICAL FRAMEWORK
BAISHIZHOU
Demolition-redevelopment pressure
Dynamic self-organizing system in BAISHIZHOU
INTRODUCTION

THEORETICAL FRAMEWORK

LIVING ENVIRONMENT

**BASIC HUMAN NEEDS**
- temporary escape
- experience nature
- physical exercise
- tension release
- privacy
- security and safety
- affiliation and belonging
- social recognition and status

**SPATIAL PROBLEMS**
- extremely high density
- insufficient public space
- unorganized public-private interface
- homogenous alley
- handshake buildings
- building with bad technical problem
- problematic dwelling layout
- isolated network

**threaten**
EXTREMELY HIGH DENSITY

INTRODUCTION

THEORETICAL FRAMEWORK

LIVING ENVIRONMENT

FSI = 3.6  
GSI = 0.57  
L = 6.3  
OSR = 0.12
INSUFFICIENT PUBLIC SPACE NETWORK

INTRODUCTION

THEORETICAL FRAMEWORK

LIVING ENVIRONMENT
small groups of women gather, washing the snooker one of few recreation choice in BAISHIZHOU.

people show the desire of physical exercise.

well

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)

excercise facilities

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

INTRODUCTION

THEORETICAL FRAMEWORK

LIVING ENVIRONMENT
local needs for the outdoor space?
'HANDSHAKE' BUILDINGS

INTRODUCTION

THEORETICAL FRAMEWORK

LIVING ENVIRONMENT
BUILDING WITH BAD TECHNICAL QUALITY

INTRODUCTION

THEORETICAL FRAMEWORK

LIVING ENVIRONMENT

PLAN AND ELEVATION OF OLD VILLAGE BUILDING
PROBLEMATIC DWELLING LAYOUT

FLOOR PLAN OF TYPICAL HOUSING STOCK IN URBAN VILLAGES

UNIT PLAN BEFORE

UNIT PLAN AFTER

INTRODUCTION

THEORETICAL FRAMEWORK

LIVING ENVIRONMENT
ISOLATED NETWORK

INTRODUCTION
THEORETICAL FRAMEWORK
LIVING ENVIRONMENT
Conflict between public interest and private interest

**THEORETICAL FRAMEWORK**

- **BUILDING OWNERSHIP**
  - LAND USE RIGHT
  - INDIVIDUAL

- **LAND OWNERSHIP**
  - STATE-OWNED
  - COLLECTIVE-OWNED

- **LAND USE RIGHT**
  - house based land
  - collective land
Lack of effective regulation and maintenance
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 use right trade-long term (rent)
  - Informal sectors established by groups of migrants
- Housing use right trade-short term (rent)
  - Individual migrant

VILLAGER

INTRODUCTION
THEORETICAL FRAMEWORK
SELF-ORGANIZING SYSTEM
Informal but vibrant economic activities
Informal but necessary public facilities

INTRODUCTION

THEORETICAL FRAMEWORK

SELF-ORGANIZING SYSTEM
Job opportunities inside the urban villages

INTRODUCTION

THEORETICAL FRAMEWORK

SELF-ORGANIZING SYSTEM
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

INTRODUCTION

THEORETICAL FRAMEWORK

BAISHIZHOU VISIONS & PARTNERSHIP

URBAN VILLAGES

SOCIAL HOUSING

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

PARTNERSHIP

central government

provincial government

municipal government

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

during transitional period

after transitional period
current situation - isolated system

vision - co-development with surrounding area

municipal government

district government

street offices
formal sectors of surrounding area
joint-stock company
informal sectors in baishizhou
INTRODUCTION

THEORETICAL FRAMEWORK

BAISHIZHOU

VISIONS & PARTNERSHIP

public sector

joint-stock company

villagers

tenants

formal market sector

informal sectors in baishizhou

during transitional period

after transitional period

housing amount to house the migrants

housing amount to house the migrants

PARTNERSHIP
BUILDING OWNERSHIP
LAND OWNERSHIP
LAND OWNERSHIP
INDIVIDUAL
COLLECTIVE-OWNED
STATE-OWNED
LAND USE RIGHT
house based land
collecting land

INTRODUCTION
THEORETICAL FRAMEWORK
BAISHIZHOU
UPGRADING SYSTEM

villager
villager + village committee
villagers developers

SELL
Low-income citizens who can not afford formal housing; 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
INTRODUCTION

THEORETICAL FRAMEWORK

BAISHIZHOU

UPGRADING SYSTEM
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)

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:

INTRODUCTION
THEORETICAL FRAMEWORK
BAISHIZHOU
ACTIONS
Adapting housing

Design principle:
- Increase the single units,
- Adaptive housing units,
- Privacy,
- Ventilation and lighting

Integration of different actions:
1. Buildings integration
2. Building facade adjustment
3. Internal layout redesign

- Integrate 2 single units
- One bedroom & one living room
- Integrate 3 single units
- Two bedroom & one living room

- Window face to window
- Window face to green wall + privatized alley to garden

introduction
theoretical framework
baishizhou
actions
DESIGN PROCESS

1. Demolition of buildings with technical problems
2. New network intervention
3. Demolition of buildings on the new network
4. Grouping remaining buildings
5. Demolition of buildings in each group
6. Remaining buildings
7. New spatial structure

INTRODUCTION

THEORETICAL FRAMEWORK

BAISHIZHOU

STRATEGIC LOCATION DESIGN
GROUND FLOOR SPATIAL INTERVENTION

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

GROUND FLOOR FUNCTION

- commercial
- residential
- workshop with showcase
- neighborhood center
- bike room
- green house

TOP PLAN

- 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

INTRODUCTION
THEORETICAL FRAMEWORK
BAISHIZHOU
STRATEGIC LOCATION DESIGN

INFRASTRUCTURE
CAR LANE + PEDESTRIAN + GREEN

NEW BUILDING
construction
roof garden
private frontyard

REMAINING BUILDING
upgrade internal design

GROUND FLOOR INTERVENTION
groundfloor integration
readable entrance
outdoor teahouse

arcade with commerce
shop window
showcase of workshop
Specific actions in strategic locations

- **INFRASTRUCTURE**: car lane, pedestrian
- **REMAINING BUILDING**: upgrade internal design
- **NEW BUILDING**: new construction
- **GROUNDFLOOR INTERVENTION**: readable entrance, arcade with commerce, shop window, roof restaurant

**INTRODUCTION**

- **THEORETICAL FRAMEWORK**
- **BAISHIZHOU**
- **STRATEGIC LOCATION DESIGN**
Specific actions in strategic locations

- **Groundfloor integration**
- **Fill with vertical green**
- **Upgrade internal design**
- **New construction**

**Groundfloor Intervention**

- **Small plaza**
- **Pedestrian + green**

**Infrastructural**

**Theoretical Framework**

**Baishizhou**

**Strategic Location Design**

**Introduction**

**Theoretical Framework**

**Baishizhou**

**Strategic Location Design**
Specific actions in strategic locations
5. CONCLUSION
To balance the urban village 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.

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!