Preservation for all. Transformation for new.

Sustainable rehabilitation in the North of Dongsì, Beijing

P5 Presentation by Jingsi Li
4584325
Research Group of History and Heritage Vector
Contents

Introduction
Problem statement
Research question
Methodology

Research and analyses

Concept
Planning (macro scale)
Urban design (meso and micro scale)
Introduction

Project Location

China

Beijing

Old City
Introduction
"Hutong-courtyard" - Physical identity of Beijing

Hutong, a traditional residential urban structure kept from 700 years ago, is one of the physical identities of Beijing.

Hutong in the old city of Beijing.

Draw by author. Photo by Sino Images-RF. Source: www.vcg.com
Introduction

What is Hutong?

A typical fabric of "Hutong-courtyard".

Introduction
What is courtyard?

Typical courtyard layout. Draw by author.
Introduction
What is courtyard?

The interior of typical courtyard.
Draw by author.
Introduction
"Hutong-courtyard" - Social space

Hutong, a treasure of civic culture.
Introduction

Research site

The North of Dongsi

Royal City
the Forbidden City

Typical residential Hutong area
the North of Dongsi

Traditional commercial area
Dashilan

Research area

My approach

Research and analyses

Concept

Planning

Urban design
The context of Beijing

Introduction
Dongsi in Timeline: Initial stage

The North of Dongsi

Stage

Events

Hutong appearance
Old City forming

Year 1264

Establishment of "New China"

Year 1949

Feudal dynasty
War time

Initial stage of Dongsi neighborhood

Problem statement
Research question
My approach
Research and analyses
Concept
Planning
Urban design
Prosperous trade along the main street in Qing Dynasty.

Fu Wangfu, the old house of princes Yin in Qing Dynasty.
Introduction

Dongsi in Timeline: Transformation stage

The context of Beijing

Events

Year 1949

Establishment of "New China"

Year 1980s

Growing pressure of "population booming, transportation, employment"

Year 2000

Small scale rehabilitation

The North of Dongsi

Stage

Initial stage of "New China"

Rapid development of "New China"

Transformation stage of Dongsi neighborhood
Introduction
Current issues

High living density.  
Photo by author.

Illegal reconstruction.  
Photo by author.

Courtyards crumbling.  
Photo by author.

Public space reducing.  
Photo by author.
**Problem statement**

My project: 
Preservation and transformation

In the past → Current situation → Future trend without intervention → Aim

<table>
<thead>
<tr>
<th>Social space &quot;Hutong-courtyard&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>High living density</td>
</tr>
<tr>
<td>Illegal constructions</td>
</tr>
<tr>
<td>Courtyards crumbling</td>
</tr>
<tr>
<td>Public space reducing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Threaten &quot;Hutong-courtyard&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threaten social interaction</td>
</tr>
</tbody>
</table>

| Area-based strategies & spatial interventions |

| Users perspective |

| Sustainable development framework |

| "Hutong-courtyard" rehabilitation |

| Public space which formulate social interaction |

| Preserving value of "Hutong-courtyard" |
The main research question:

**Which strategies and spatial interventions could provide the North of Dongsi Historic Reserve for a sustainable rehabilitation and renewal?**

To answer the main research question, several sub research questions need to deal with:

1. What experiences can be learned from previous Hutong rehabilitation projects and conservation policies carried on by municipal government?
2. What spatial, cultural and social values does Hutong bring to the North of Dongsi?
3. What are the potentials for future development in the North of Dongsi?
4. What interventions could promote in the North of Dongsi?
Approach: Past experiences

Theoretical framework: Small scale and metabolic "Organic renewal" by Wu Liangyong in 1990s

Professor Wu

Organic renewal

Preserving typical “Hutong-courtyard” structure

Assess the complex building environment by historic value

Rehabilitation work according to assessment on structural type and quality of buildings

<table>
<thead>
<tr>
<th>Type (Structural type &amp; quality)</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valuable building</td>
<td></td>
</tr>
<tr>
<td>Heritage building</td>
<td>Preserve and maintain by same form and material</td>
</tr>
<tr>
<td>Good traditional building</td>
<td>Maintain original look and allow to use new material</td>
</tr>
<tr>
<td>Mixed quality building</td>
<td>Repair and redevelop to restore traditional form</td>
</tr>
<tr>
<td>Dilapidated quality building</td>
<td>Redevelop to meet new demands</td>
</tr>
<tr>
<td>Redeveloped multi-storey and high-rise buildings</td>
<td>Can be redevelopment to meet new demands</td>
</tr>
</tbody>
</table>

Higher density & Good private living condition

Small scale transformation: New multi-storey building typology

Aim

My approach
Redefine heritage in Hutong context

Existing Hutong and heritage: Heritage object

Hutong and heritage in this project: Heritage object + Public space + People approach

Transformation
Preservation
Promote
Social interaction

Concept
Planning
Urban design

Introduction
Problem statement
Research question
Research and analyses
Concept
Planning
Urban design
Research and analyses
Tangible value collection in macro-scale

Heritage
Intangible value
Tangible value

Macro scale
Neighborhood
Street-Hutong-Courtyard
Architectural elements

Meso scale
Semi-private space
Heritage objects
Private space
Modern building
Private space

Micro scale
Semi-public space
Modern material
Traditional color

Narrative of public life
Social cohesion
Existing social structure
Urban structure

Narrative of private life
Leisure lifestyle
Residents’ perspective

Future social structure
Stylish urban life

Tangible value collection in macro-scale

Positive transformation
Reused stuff

In the past
At present
In the future
Timeline

Introduction
Problem statement
Research question
My approach
Research and analyses
Concept
Planning
Urban design

20
Research and analyses

Macro-scale: Urban structure

Yuan Dynasty
Year 1271 - 1368

Ming Dynasty
Year 1368 - 1644

Qing Dynasty
Year 1644 - 1912

the Republic of China
Year 1912 - 1949

New China
After 1949
Research and analyses

In the past: Traditional value collection in meso-scale

Heritage

Intangible value

Tangible value

Macro scale

Urban structure

Meso scale

Semi-private space

Heritage objects

Semi-public space

Modern building

Micro scale

Modern material

Traditional color

Narrative of private life

Narrative of public life

Leisure lifestyle

Social cohesion

Existing social structure

Residents’ perspective

Stylish urban life

Future social structure

In the past

In the present

In the future

Timeline

Heritage objects

Private space

Private space

Reused stuff

Positive transformation

Modern material

Semi-public space

Semi-private space

Tangible value

Heritage

Intangible value

Research and analyses
Research and analyses

Meso-scale: National heritage object

Heritage objects in the North of Dongsi.

A. Old home of Chongli, a dignitary in Qing Dynasty
B. Fu Wangfu, the old house of princes Yin in Qing Dynasty
C. Yanci Temple

Legend
- National historic site
- Municipal historic site
- Other historic site marked by local government

Draw by author. Source: Beijing Municipal Administration of Cultural Heritage, photo by author: old home of Chongli, Yanci Temple; photo of Fu Wangfu by Beijing Municipal Administration of Cultural Heritage
Research and analyses
Meso-scale: Heritage object
Courtyard as witness of historical events

A. Secret hideout of Japanese spy Yoshiko Kawashima before 1949
B. Old home of Xu Shichang, the President of the Republic of China in 1918 to 1922
C. American school of old Beijing and National Ministry of Culture

Legend
- Place with historic events
- Old home of personalities
- Religious place

Courtyard as witness of historical events.
Research and analyses

Meso-scale: Traditional atrium system inside of courtyard

Courtyard space | Original spatial characteristics plan | Original function
--- | --- | ---
1. Entry court | ![Entry court plan](image) | Identity | Transit | Privacy
2. Spirit court | ![Spirit court plan](image) | Stay & relax | Privacy
3. Front court | ![Front court plan](image) | Transit | Meet
4. Utility court | ![Utility court plan](image) | Service
5. Main central court | ![Main central court plan](image) | Stay & relax | Meet | Plantation | Transit
6. Corner court | ![Corner court plan](image) | Service
7. Back court | ![Back court plan](image) | Privacy

Original spatial characteristics of atriums inside courtyard. Draw by author.
Research and analyses

In the past: Traditional value collection in micro-scale

Heritage

Intangible value

Macro scale

Description

Tangible value

Macro scale

Street-Hutong-Courtyard

Architectural elements

Meso scale

Micro scale

Urban structure

Semi-private space

Semi-public space

Modern building

Private space

Modern material

Traditional material

Traditional color

Reused stuff

Narrative of public life

Narrative of private life

Leisure lifestyle

Social cohesion

Existing social structure

Residents’ perspective

Stylish urban life

Future social structure

In the past

In the present

In the future

Timeline

Urban structure

Heritage objects

Positive transformation

Modern building

Private space

Semi-private space

Semi-public space

Introduction

Problem statement

Research question

My approach

Research and analyses

Concept

Planning

Urban design
Research and analyses

Micro-scale: Traditional architectural principle

Hierarchical and ritual
Imperial power

Hierarchical and ritual
Lucky and positive quality

Imperial ownership color
building roof

Imperial building wall

Natural environment in the winter of Beijing

Sky
Snow
Ground
Plant
Plant

Courtyard roof and wall
Other main building components
Other building decorated components

Lucky and positive quality
Vitality
Research and analyses

Conclusion of traditional tangible value
Research and analyses
Transformation stage: Value collection in meso-scale

Heritage

Intangible value

Tangible value

Macro scale
Street-Hutong
Neighborhood

Micro scale
Architectural elements

Scales

Narrative of private life
Narrative of public life

Leisure lifestyle
Social cohesion
Existing social structure

Residents’ perspective
Stylish urban life
Future social structure

In the past

Urban structure

Urban objects
Semi-private space

At present

Heritage objects
Private space

Modern building
Semi-public space

Modern material
Private space

Reused stuff

In the future

Intangible value

Tangible value

Research question
My approach
Concept
Planning
Urban design

Introduction
Problem statement

My approach

Introduction
Problem statement
Research question
My approach
Concept
Planning
Urban design

Research and analyses

Transformation stage: Value collection in meso-scale
Research and analyses
Meso-scale: Positive transformation

New building typology and roof playground.
Photo by author.

Building mix shop and housing.
Photo by author.

Attractive hostel-Red Capital Residence.

Bamboo fence in courtyard.
Photo by Hou Xiaolei.

Fence combine with planation.
Photo by Hou Xiaolei.
Research and analyses

Meso-scale: Shared atrium space

Most courtyards are shared by several families, and a small number of private courtyards.
## Research and analyses

### Meso-scale: Transformation in shared atrium space

<table>
<thead>
<tr>
<th>Courtyard space</th>
<th>Existing spatial characteristics</th>
<th>Original functions and their survival status</th>
<th>Emerging functions in existing context</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plan</td>
<td>Space</td>
<td>Courts survival status</td>
</tr>
<tr>
<td>1 Entry court</td>
<td><img src="image" alt="Plan" /> <img src="image" alt="Space" /></td>
<td><img src="image" alt="Courts survival status" /></td>
<td><img src="image" alt="Identity" /> <img src="image" alt="Transit" /> <img src="image" alt="Privacy" /></td>
</tr>
<tr>
<td>2 Spirit court</td>
<td><img src="image" alt="Plan" /> <img src="image" alt="Space" /></td>
<td><img src="image" alt="Courts survival status" /></td>
<td><img src="image" alt="Identity" /> <img src="image" alt="Transit" /> <img src="image" alt="Privacy" /></td>
</tr>
<tr>
<td>3 Front court</td>
<td><img src="image" alt="Plan" /> <img src="image" alt="Space" /></td>
<td><img src="image" alt="Courts survival status" /></td>
<td><img src="image" alt="Identity" /> <img src="image" alt="Transit" /> <img src="image" alt="Meet" /></td>
</tr>
<tr>
<td>4 Utility court</td>
<td><img src="image" alt="Plan" /> <img src="image" alt="Space" /></td>
<td><img src="image" alt="Courts survival status" /></td>
<td><img src="image" alt="Identity" /> <img src="image" alt="Service" /></td>
</tr>
<tr>
<td>5 Main central court</td>
<td><img src="image" alt="Plan" /> <img src="image" alt="Space" /></td>
<td><img src="image" alt="Courts survival status" /></td>
<td><img src="image" alt="Identity" /> <img src="image" alt="Transit" /> <img src="image" alt="Meet" /> <img src="image" alt="Plantation" /></td>
</tr>
<tr>
<td>6 Corner court</td>
<td><img src="image" alt="Plan" /> <img src="image" alt="Space" /></td>
<td><img src="image" alt="Courts survival status" /></td>
<td><img src="image" alt="Identity" /> <img src="image" alt="Service" /></td>
</tr>
<tr>
<td>7 Back court</td>
<td><img src="image" alt="Plan" /> <img src="image" alt="Space" /></td>
<td><img src="image" alt="Courts survival status" /></td>
<td><img src="image" alt="Identity" /> <img src="image" alt="Privacy" /></td>
</tr>
</tbody>
</table>

**Legend:**
- **Closed facade**
- **Reduced atrium area**
- ![Heart](image) ![Heart](image) ![Heart](image) **Remain intact**
- ![Heart](image) ![Heart](image) ![Heart](image) **Remain partially**
- ![Heart](image) ![Heart](image) **Remain a little**
- ![Heart](image) ![Heart](image) ![Heart](image) ![Heart](image) **Almost vanished**

---

33
Research and analyses

Transformation stage: Value collection in micro-scale

Heritage

Intangible value

Tangible value

Scales

Macro scale

Neighborhood

Micro scale

Architectural elements

In the past

Narrative of private life

Narrative of public life

In the present

Urban structure

Heritage objects

Private space

Semi-private space

At present

Social cohesion

Existing social structure

Modern building

Private space

Semi-public space

In the future

Residents' perspective

Stylish urban life

Future social structure

Modern material

Traditional material

Reused stuff

Leisure lifestyle

Narrative of private life
Research and analyses

Micro-scale: Positive transformation

Glass entrance of shops.  
*Photo by author.*

Permeable material of pavement.  
*Photo by author.*

Plants in old sinks.  
*Photo by Hou Xiaolei.*

Reused furniture.  
*Photo by author.*
Research and analyses
Conclusions of tangible value in transformation stage

Heritage

Intangible value

Tangible value

Macro scale

Neighborhood

Street-Hutong

Macro scale

Neighborhood

Macro scale

Neighborhood

Meso scale

Street-Hutong-Courtyard

Micro scale

Architectural elements

Scales

Narrative of private life

Narrative of public life

Leisure lifestyle

Social cohesion

Existing social structure

Urban structure

Positive transformation

Heritage objects

Private space

Modern building

Private space

Semi-public space

Semi-private space

Modern material

Reused stuff

Traditional color

Traditional material

Intangible value

Tangible value

In the past

At present

In the future

Narrative of public life

Heritage objects

Private space

Modern building

Private space

Semi-public space

Semi-private space

Traditional material

Reused stuff

Traditional color

Modern material

Urban structure
Research and analyses
Conclusions of tangible value in transformation stage
Research and analyses

Conclusions of social value in the past

Narratives of public and private life in Dongsi

- Eat together in courtyard
- Families' activities
- Children play
- Street food court
- Non-motorized traffic
Research and analyses
At present: Social value collection in macro-scale

- **Heritage**
  - Intangible value
  - Tangible value

- **Scales**
  - Macro scale
  - Meso scale
  - Micro scale

- **Scales**
  - Courtyard
  - Street-Hutong
  - Neighborhood

- **In the past**
  - Narrative of private life
  - Narrative of public life

- **At present**
  - Leisure lifestyle
  - Social cohesion
  - Existing social structure
  - Urban structure
  - Residents’ perspective
  - Stylish urban life
  - Future social structure

- **In the future**
  - Positive transformation
  - Modern building
  - Reused stuff

- **At present**
  - Heritage objects
  - Private space
  - Semi-private space

- **Future**
  - Modern material
  - Traditional color

**Research and analyses**

**Introduction**

**Problem statement**

**Research question**

**My approach**

**Research and analyses**

**Concept**

**Planning**

**Urban design**

40
Research and analyses

Macro-scale: Existing social structure

63%
Main group of locals:
Retired people &
Elder & Middle age people

37%
Immigrants from other part of China:
Shop holders &
low-income workers

Visitors:
Residents nearby &
Tourists
Research and analyses

Meso-scale and micro-scale: Intangible value in locals’ perspective

Demands of local residents:

Traditional Hutong Life

Outdoor activities

Friends and Family

Nature and plants

Subject: Mrs. Wu
Description: Retired and live in Beijing over 30 years.
She said, “...I have much spare time and I like to grow flowers in our courtyard...Here is city center, and it is so convenient to go anywhere...”

Mrs. Wu

Mrs. Zhang

Mr. Li

Mr. Li’s son

Mr. He

Subject: Mr. He
Description: Retired couple and live in Beijing over 25 years.
Mr. He said, “...I miss the old “Hutong” life...There are too many tourists, even we all don’t say hello...”
His wife said, “...I really refuse to part with my old neighbors, so we don’t want to leave our courtyard...”

Mrs. He

Subject: Mrs. Zhang
Description: Retired and live in Beijing over 30 years.
She said, “...I am used to going to large park to exercise, because there is less public space in Hutong...”

Mrs. Zhang

Subject: Mr. Li with his son
Description: Live in Beijing over 20 years.
Mr. Li said, “...There are more and more strangers in our community, so make me feel worried about my son...”
His son said, “...Hutong is our playground, but the passing vehicles always disturb our game in Hutong...”

Mr. Li

Mr. Li’s son

It’s a shame!

It’s a shame!

It’s a shame!
Research and analyses

Meso-scale and micro-scale: Intangible value in immigrants' and visitors' perspective

Introduction

Problem statement

Research question

My approach

Planning

Research and analyses

Urban design

Demands of immigrants and potential groups:

Friends

Convenience and efficiency

Historic attractions

Recreation and living condition

Working

Subject: Mrs. Zhao
Description: Work as office clerk and live in Dussi; only one year.
She said, "...it is very convenient living in such a central area, I will spend
several hours to commute everyday otherwise."

"...All service facilities like restaurants, shops, hospital and schools are in
high quality, they meet all my demands..."

"...The room I am living is quite narrow and dilapidated, but living in
Dussi is much cheaper than a flat in city center, flat is too expensive for
me...I feel embarrassed to live there, should I go on or give up?..."

Subject: Harri
Description: Tourist from France, his first time to Beijing.
He said, "...I like photography, I think Beijing is a real
Beijing, the building, people's lifestyle and their accent, they give me
much inspiration and they cannot be found in other area...totally differ-
ent from my home city...I love there so much...it's amazing!..."

"...I think it is easy to make many friends if I lived in Beijing, so it is
attractive for me...

"...The imperial palace are great, but they area lacklustuer and unimagi-
native by comparison..."

Subject: Mrs. Liu
Description: Sheikheep, ran her shop and live in Dussi; for six years.
She said, "...Most of our guests are resident living nearby, some old
and retired people comes frequently, even so we became friends...

"...Similar conditions can be found in other restaurants and shops..."
Research and analyses
At present: Conclusion of the intangible value

Social cohesion and leisure personal lifestyle

- Sit in the sun
- Hang clothes
- Plantation
- Chat
- Fall in love
- Outdoor activities
- Play cards
Research and analyses
In the past: Social value collection

Heritage

Intangible value

Macro scale
Macro scale
Macro scale

Tangible value

Macro scale
Meso scale
Micro scale

Urban structure

Semi-private space
Semi-public space
Private space
Modern building
Private space
Reused stuff

Heritage objects
Semi-private space
Semi-public space
Modern material
Traditional material
Traditional color

Positive transformation

In the past

Narrative of private life
Narrative of public life
Leisure lifestyle
Social cohesion
Existing social structure
Residents' perspective

At present

Stylish urban life
Future social structure

In the future

Urban structure

Intangible value

Scales
Macro scale
Macro scale
Macro scale

Tangible value

Scales
Macro scale
Meso scale
Micro scale

Research and analyses

In the past: Social value collection

Introduction
Problem statement
Research question
My approach
Research and analyses
Concept
Planning
Urban design
Research and analyses

Macro-scale: New generations

Municipal administration move to Tongzhou new city

New generations in Dongsi neighborhood

Creative class

Students

Commuters
Research and analyses

Meso-scale and micro-scale: Interest of new generations
Research and analyses

In the future: Conclusion of the intangible value

Stylish urban life and activities
Research and analyses

Limitations analysis

Program
Traffic
Building environment
Excessive programs in Dongsi neighborhood.

Little green public space

Land use in the north of Dongsi in 2015.

Draw by author. Source: Planning authority of municipal government.
Width of Hutong in the north of Dongsi in 2015.
Draw and photo by author. Source: Planning authority of municipal government.

Weak car traffic capacity, but be appropriate for walking and biking.

Draw by author. Based on site observation and map study. Source: Google map.

Research and analyses

Limitations analysis: No enough car parking space

No enough car parking space.
Parking along Hutong takes up public space.
Research and analyses
Limitations analysis: Building environment

High living density.

Low living density courtyards

The number of electricity meter show the numbers of families living in one courtyard.

Per-capita living area in the north of Dongsi in 2015.
Draw by author.
Illegally constructed buildings result in a decline of semi-public space inside courtyard.

Distribution of illegal construction in 2017.

Legend:
- Red: One-storey addition
- Purple: Two-storey addition
- Blue: Multi-storey addition

Research area

Original building

One-storey addition

Two-storey addition

Multi-storey addition

Drawn by author. Based on site observation and map study. Photo by author in 2017. Source: Planning authority of municipal government.
Research and analyses

Potential for future development: Merging value and limitations

Historic landmark courtyard

Courtyard need to be improved

Illegal construction

Building quality

Building height

Living density

Legend

- National historic site
- National historic site
- Historic landmark site
- Historic landmark site
- Other historic site marked by local government

My approach

Planning

Research and analyses

Urban design
Research and analyses

Potentials for future development: Typology of courtyard renewal

Courtyard assessment and target group

Legend:
- Heritage courtyard
- Traditional historic courtyard
- Discordant modern building
- Good traditional courtyard
- Concordant redeveloped courtyard
- Mix quality and ordinary courtyard
- Discordant redeveloped courtyard

Courtyard assessment and target group

Draw by author.
Research and analyses

Potentials for future development: Site chosen to zoom in

Site chosen to zoom in. Draw by author.

Legend
- Heritage courtyard
- Ordinary courtyard building
- Traditional historic courtyard
- Discordant modern building
- Modern times historic courtyard
- Concerted modern building

N

the North of Chaoyangmen street
Dongsi 7th Hutong
Dongsi 6th Hutong
Shiqiao Hutong

Mix quality and ordinary courtyard
Repair combine demolish and rebuild

Good traditional courtyard
Repair semi-public sapce

Discordant redeveloped courtyard
Repair combine demolish and rebuild
Concept

Generation of design concept

Timeline:
- Year 1264-1919: Initial stage of Hutong
- Year 1919-1980s: Shared stage of Hutong
- Year 1980s-2010s: Decline stage of Hutong
- Now and future!

Housing:
- Generation of design concept

Courtyard:
- Public space

Public space:
- Housing + courtyard + public space
- People
- Way of social interaction
- Social structure
- Development

Concept

Introduction
Problem statement
Research question
My approach
Research and analyses
Concept
Planning
Urban design

58
**Concept**

**Scale system of designing**

- **Macro-scale: Dongsi neighborhood**
  Planning: Spatial structure and regional connection

- **Meso-scale: Choosing site**
  Urban design: Restore urban fabric and improve the programs

- **Micro-scale: Courtyard**
  Urban design: Users’ perception on public space system

---

**Process**

- Top: Planning guide design
- Bottom: Typology of courtyard renewal

**Scale**

- Macro-scale: Choosing site
- Meso-scale: Choosing site
- Micro-scale: Courtyard

**Map**

- Macro-scale: Dongsi neighborhood
- Meso-scale: Choosing site
- Micro-scale: Courtyard

**Scheme**

- Process: Planning guide design
- Scale: Typology of courtyard renewal

---

**Introduction**

**Problem statement**

**Research question**

**My approach**

**Research and analyses**

**Concept**

**Planning**

**Urban design**
Concept
Collage of Hutong in the future

The collage of future Hutong space
Draw by author.
Concept
Collage of courtyard in the future

The collage of future courtyard space
Draw by author.
Decentralize immigrants from other part of China: Shop holders & low-income workers

Visitors: Residents nearby & Tourists

63%
Main group of locals: Retired people & Elder & Middle age people

37%
Immigrants from other part of China: Shop holders & low-income workers

Population decrease 15%

>75%
Main group of locals: Retired people & Elder & Middle age people

<25%
Immigrants

Future social structure after people decentralization

Attract new generations: Students, creative class, people working nearby

Decentralize immigrants from other part of China: Shop holders & low-income workers

Future social structure of the North of Dongsi.
Planning

Programmatic structure

Programmatic structure planning.

Legend
- Urban highway
- Main urban street
- Sub urban street
- Hutong area
- Commercial and tourist area
- CBD

Regional connection

Draw by author.
Office, dwelling and business land trans to multi-functional land.

Draw by author.
Planning

Car traffic and parking system

- Car-free Hutong
- 115% parking over existing demands
- Induction pass for serving profession vehicles as well as local residents

Regional public parking system

Legend
- Urban highway
- Main urban street
- Sub urban street
- Public car parking (over 100 parking lot)
- Emerging public car parking (over 100 parking lot)

Kick-up block just allow induction pass
Underground carparking

Car traffic and parking system planning. Draw by author.
Planning
Car traffic and parking system

The walking distance to underground parking.
Draw by author.
Urban Design in meso-scale
Choosing site analysis: Social dimension

Inhabitancy pattern of chosen site in 2017.
Draw by author. Base on site observation and map study
Urban Design in meso-scale
Choosing site analysis: Program

Building function in chosen site in 2017.
Draw by author. Base on site observation and map study. Source: Google map.

Commercial building
Office building
Modern residential building
Traditional courtyard building
Illegal construction
Choosing site

Legend

Commercial building
Office building
Modern residential building
Traditional courtyard building
Illegal construction
Choosing site
Urban Design in meso-scale
Choosing site analysis: Public space system

Public space in chosen site in 2017.
Draw by author. Base on site observation.

Legend:
- Public space
- Semi-public space
- Private space
- Choosing site

Private office space
Urban Design in meso-scale

Choosing site analysis: Public space system

Legend
- Street
- Main Hutong
- Branches Hutong
- Choosing site

Street system in chosen site in 2017.
Draw by author. Base on site observation.
Urban Design in meso-scale

Choosing site design: Social dimension

Layout of new inhabitancy pattern

Future inhabitancy pattern of chosen site.

Legend
- New generations community:
- Original residents mix new generations
- Traditional community:
- Original residents
- Mixed community
- Community center
- Visitors
- New generations and immigrants
- Choosing site

Draw by author.
Urban Design in meso-scale
Spatial strategies on chosen site

NEW GENERATION COMMUNITY
mixed community

COMMUNITY CENTER:
Visitors meet residents

TRADITIONAL COMMUNITY
Locals’ courtyard

Strategy 1
Strategy 2
Strategy 3

Private space
Semi-private space
Public space

Semi-public space

Introduction
Problem statement
Research question
My approach
Research and analyses
Concept
Planning
Urban design
Urban Design in meso-scale

Layout of chosen site

Legend
- Existing traditional building
- Existing modern building
- Existing additional building
- New-built traditional building
- New-built modern building
- New-built hallway
- Underground parking car entrance
- Kick-up block
- Underground parking walking entrance
- Green space
- Building storey

Choosing site

Layout of chosen site.
Draw by author.
Urban Design in meso-scale

Layout of street system

Street system layout in chosen site

Draw by author.
Urban Design in meso-scale

Layout of bike system

Bike system layout in chosen site
Draw by author.
Urban Design in meso-scale

Layout of walking system

Walking system layout in chosen site

Draw by author.
Urban Design in meso-scale

Existing chosen site

Existing bird view of chosen site.

Draw by author.
Urban Design in meso-scale
Perspective of chosen site

Perspective of bird view of chosen site in the future.
Draw by author.
Urban Design in micro-scale

Chosen courtyard

New generations community
Transformation project

Traditional courtyard
Preservation project

Legend
- Existing traditional building
- Existing modern building
- Existing additional building
- New-built traditional building
- New-built modern building
- New-built hallway
- Underground parking car entrance
- Kick-up block
- Underground parking walking entrance
- Green space
- Building storey
- Choosing site

Chosen courtyard. Draw by author.
Micro scale: Traditional courtyard

Existing situation

View A

View B

View C

Existing environmental analysis

Existing residential pattern
Micro scale: Traditional courtyard
Spatial value: Original form of the courtyard

Master plan

Groundfloor plan

Concept
Planning
Urban design
Micro scale: Traditional courtyard

Aim: Preserve the traditional leisure life and social interaction for locals

Private life

Semi-private life

Semi-public life

Public life
Micro scale: Traditional courtyard

Social value for locals

Where are those social values in a courtyard?

Semi-public space
Both
Semi-private space

- Lot together in courtyard
- Family activities
- Children play
- Street food court
- Non-motorized traffic
- Chat
- Street performances
- Play yard
- Outdoor activities
- Lot in the sun
- In the sun
- Plantation
- Fall in love
- Urban farm
- Business meeting
- Relaxing andgreening
- Relaxing and green trendy
Micro scale: Traditional courtyard
Spatial interventions: atriums improvement

<table>
<thead>
<tr>
<th>Courtyard space</th>
<th>Original spatial characteristics</th>
<th>Existing spatial characteristics</th>
<th>Future spatial characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>plan</td>
<td>Space</td>
<td>Spatial intervention</td>
</tr>
<tr>
<td></td>
<td>space</td>
<td></td>
<td>Scheme</td>
</tr>
<tr>
<td>1 Entry court</td>
<td></td>
<td></td>
<td>Preserve</td>
</tr>
<tr>
<td>2 Spirit court</td>
<td></td>
<td></td>
<td>Partly restore and change reduced area to buffers</td>
</tr>
<tr>
<td>3 Front court</td>
<td></td>
<td></td>
<td>Change reduced area to buffers</td>
</tr>
<tr>
<td>4 Utility court</td>
<td></td>
<td></td>
<td>Partly restore and change reduced area to buffers</td>
</tr>
<tr>
<td>5 Main central court</td>
<td></td>
<td></td>
<td>Restore traditional form and add buffers</td>
</tr>
<tr>
<td>6 Corner court</td>
<td></td>
<td></td>
<td>Preserve private room</td>
</tr>
<tr>
<td>7 Back court</td>
<td></td>
<td></td>
<td>Partly restore and change reduced area to buffers</td>
</tr>
</tbody>
</table>

Legend:
- Closed facade
- Reduced atrium area
- New buffers
Micro scale: Traditional courtyard
Main central court as an example of improvement

<table>
<thead>
<tr>
<th>Value in the past</th>
<th>Value in transformation stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grey brick wall</td>
<td>New building typology</td>
</tr>
<tr>
<td>Slope roof</td>
<td>Self-built fence</td>
</tr>
<tr>
<td>Yingbi wall (entrance)</td>
<td>Plants in sink</td>
</tr>
<tr>
<td>Grey tiles</td>
<td>Old furniture</td>
</tr>
<tr>
<td>Flagstones floor</td>
<td>Reuse of bricks</td>
</tr>
<tr>
<td>Red pillars</td>
<td>Transparent material</td>
</tr>
<tr>
<td>Red door</td>
<td>Permeable pavement</td>
</tr>
</tbody>
</table>

- Grey pillars
- Yingbi wall (entrance)
- Grey brick wall
- Flagstones floor
- Slope roof
- Plants in sink
- Reuse of bricks
- Transparent material
- Permeable pavement
Micro scale: Traditional courtyard

Layout of traditional courtyard

Groundfloor plan

- Indoor space
- Urban form
- Grass with plants
- Seat
- Wingbi Wall (Entrance)

Layout

- Traditional Building
- Flat roof Building
- Urban form
- Grass with plants
- Seat
- Roof window
- Wingbi Wall (Entrance)
Micro scale: Traditional courtyard

Layout of semi-public space system in traditional courtyard

Legend
- Public space
- Semi-public space
- Semi-private space
- Private space

New spatial system
Micro scale: Traditional courtyard
Social value in traditional courtyard
Micro scale: Traditional courtyard

Zoom in to details: Space value and architectural elements value in central court

Hallway

Perspective of central court

Perspective of bird view

Additions with glass in traditional form

Permeable floor

Original grey tiles

Original grey bricks

Flagstone floor

Original grey bricks

Original grey tiles
Micro scale: New generations community

Current situations

Legend

- Illegal construction
- Other building
- Good traditional courtyard

View A

View B

View C

Concept Planning

Introduction

Problem statement

Research question

My approach

Research and analyses

Concept

Planning

Urban design
Micro scale: New generations community
Social analysis

Busy and tired!

Existing new generations life in a weekday in general context
Micro scale: New generations community
Aim: More time to enjoy leisure and social interaction

Combining work with relaxation in Hutong

Legend
- Private
- Semi-private
- Semi-public
- Public

Future weekday of new generations in the neighborhood
Micro scale: New generations community
Social value for new generations

Where are those social values in new community?
Micro scale: New generations community
Spatial interventions: Transforming traditional spatial logic in new context

Traditional spatial logic of "Hutong-courtyard"

Hierachy of space

Spatial characteristics
Micro scale: New generations community
Spatial interventions: Transforming traditional spatial logic in new context

Transforming traditional spatial logic in new context

Upgrade the atrium system and open the courtyard

Most public → Public + Semi-public + Semi-private
Micro scale: New generations community
Spatial interventions: Transforming traditional spatial logic in new context
Micro scale: New generations community

Layout

[Detailed architectural diagram showing office spaces and community areas with annotations for planning, urban design, and other relevant details.]
Micro scale: New generations community

Spatial value in traditional courtyard
Micro scale: New generations community

Social value in traditional courtyard
Micro scale: New generations community

Zoom in to details

Introduction
Problem statement
Research question
My approach
Research and analyses
Concept
Planning

Urban design
Micro scale: New generations community

Zoom in to details: Space value and architectural elements value in semi-private space

Leisure life with plants

Reuse of bricks and sink planting

Bamboo fence

Windows

Grey bricks

Permeable floor
Micro scale: New generations community

Zoom in to details

[Diagram of a micro-scale New generations community with detailed planning and urban design elements.]

Introduction
Problem statement
Research question
My approach
Research and analyses
Concept
Planning

Urban design
Micro scale: New generations community

Zoom in to details: Central courtyard and steps
Micro scale: New generations community
Perspective of bird view
Thank you for your attention!