Renaissance of Cultural Identity
- historic districts regeneration in Beijing inner city

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Second mentor: Willem Hermans, Ir. W.J.A.

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Complex city Studio
Urbanism
P5 presentation
WHAT? _Cultural identity definition & Problem statement

WHY? _diagnoses of current historic districts regeneration

HOW? _strategy definition

WHO? _stakeholders

WHEN? _phases

EVALUATION
Definition of cultural identity
Definition of Cultural Identity

1. Central Axis

850 years history

- Symbolic structure: 7.8KMs
- Axis of centralities: 8KMs

Qing Dynasty
historic monuments locates on the central axis

modern constructions alongside central axis or its extension
Definition of Cultural Identity

2. Hutong and courtyards

Threats:
- demolition
- decaying spatial quality
- no sewage system
- highly densified
- dilapidated
- renew
- high housing price

spatial quality/typology/culture

chess board pattern

fish-bone hutongs
Definition of cultural identity

3. Typical Life style of hutong

Quality:
- multi-way of using space
- diversity

Threats:
- forcing out of the historic city center
Central Axis

Urban Structure

totally top down intervention
out of historic context in new urban development

Urban Morphology

historic districts are shrinking
the spacial quality are decaying
the historic urban fabric is interrupted
fragmentation

Urban Context

the social structure has been changed
the segregation between different social groups
the original residents are forcing out

Cultural Identity

Hutong+ Courtyards

Typical life style

Problem Statement

SPATIAL

ECONOMIC

SOCIAL

urban vitality
Diagnoses on current inner city regeneration
housing property

Use right of land

Diagnoses

Conclusions

Lose of cultural identity
Change of urban form
Decline of urban vitality
25 historic areas in Beijing old city-2002
Diagnoses

local residents’ wishes

We want to stay 70%

We want to move away 30%

live close with the family
Diagnoses

Consequence of former development

1/3 stay

2/3 move away cannot afford

Affordable
Key Points

CULTURAL IDENTITY

economic sustained
capacity
quality
social integration

URBAN VITALITY
Research Questions

Main questions:

How to intervene the Beijing inner city regeneration to spatially and socially rehabilitate historic districts, in order to renaissance the cultural identity of Beijing inner city as well as urban vitality under the contemporary development?

Sub research questions:

• spatial:
  How has been the Beijing urban form/ function transferred?
  What’s the current situation of historical districts in Beijing inner city?
  What’s the value of historical districts in Beijing inner city, specially the spatial value?
  How have the historical districts been regenerated in China?

• social:
  What is the social structure of historical districts and how has it been changed in rapid urban development?

• Economic:
  What is the relationship among different stakeholders?
  What kind of the new economic potentiality can be activated in the historic districts regeneration?
Strategy for historic districts regeneration
Design Proposal

HOW?
Methodology
theoretical support

INNER CITY REGENERATION
management
resources
human resources
housing
investment

social
integration
diverse
housing typology
sustained economy

housing integration
socio-spatial segregation
social mixing
social balance
social cohesion
diversity

meeting opportunity
ratio of original residents

housing typology
spatial quality
economic capital

practical support
Site study
Current situation_streets

YUAN DYNASTY 1341-1368

QING DYNASTY 1711-1799

CURRENT
Current situation_building

- Commercial
- Good quality courtyards
- Hospital
- Modern buildings
- Schools
<table>
<thead>
<tr>
<th>Current situation</th>
<th>building quality</th>
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<tbody>
<tr>
<td><img src="image1.png" alt="Image 1" /></td>
<td>preserve</td>
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<tr>
<td><img src="image2.png" alt="Image 2" /></td>
<td>maintain</td>
</tr>
<tr>
<td><img src="image3.png" alt="Image 3" /></td>
<td>renew</td>
</tr>
<tr>
<td><img src="image4.png" alt="Image 4" /></td>
<td>rebuild</td>
</tr>
<tr>
<td><img src="image5.png" alt="Image 5" /></td>
<td>rebuild</td>
</tr>
<tr>
<td><img src="image6.png" alt="Image 6" /></td>
<td>maintain</td>
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</table>
Current situation_housing

1. good quality courtyards
2. messy courtyards
3. slab housing
4. high-rise building
Proposal for Gulou districts regeneration

As carriers of cultural identity, spatial intervention mainly concentrate on creating or upgrading centralities on central axis and regeneration and construction of houses.

With the improved spatial quality and integrated social networks, diverse urban space and activities done by different social groups can show the rehabilitated urban vitality.

Spatial intervention supplys basic conditions for attracting more social groups into the districts. Social integration can be realized by different housing types, upgraded spatial quality, added public spaces and job opportunities brought by new functions in the site.

Carefully treatment between historic form and modern development can maintain the historical continuity in the process of regeneration, contribute to cultural identity and in put new activity in the traditional neighborhood of Beijing inner city.
The main strategies are:
- new housing typology
- spatial quality
- social integration and stakeholders cooperation
- new programs and functions
Proposal for historic districts regeneration

- Government
  - Policy support
  - Supervise
- Developer
  - Cooperation
- Local/new resident
  - Cooperation
- Housing institution
  - Sell
  - Rent
  - Rent

Diagram:
- Users
  - Tourists
  - Residents
- Social groups
  - Circle 1
  - Circle 2
  - Circle 3
  - Circle 4
  - Circle 5
  - Circle 6
Spatial intervention
urban axis associated conversation

- preserve
- maintain
- renew
- rebuild
- maintain

organized renew/reconstruction

repair
<table>
<thead>
<tr>
<th>Function</th>
<th>Residential</th>
<th>Residential</th>
<th>Grocery</th>
<th>Homes for the Aged</th>
<th>Tea House</th>
<th>Restaurant</th>
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</thead>
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<tr>
<td><strong>Guideline of facade renewing</strong></td>
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<tr>
<td><strong>Elevation of West Zhonglouwan</strong></td>
<td>maintain</td>
<td>maintain</td>
<td>rebuild</td>
<td>maintain</td>
<td>renew</td>
<td>maintain</td>
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<td><strong>Current</strong></td>
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<td><strong>Evaluation</strong></td>
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<td><strong>Guideline Example</strong></td>
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<tr>
<td><strong>Elevation of East Zhonglouwan</strong></td>
<td>maintain</td>
<td>renew</td>
<td>renew</td>
<td>renew</td>
<td>maintain</td>
<td>renew</td>
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<tr>
<td><strong>Current</strong></td>
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<td><strong>Evaluation</strong></td>
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Residents self-organized development

Developers:

Target groups:
government supported development

Developers:

Target groups:

- Haidian
- Chaoyang
- Fengtai
- Shijingshan
- Xicheng
- Dongcheng
- Daxing
- Fangshan
- Mentougou
- Changping
- Pinggu
- Shunyi
- Miyun
- Huairou
- Yanqing

- high-tech industry
- culture/commercial
- tourist
- shared courtyard
- nomal hutongs
- historic streets
- secondary hierarchy
<table>
<thead>
<tr>
<th>Housing Typology</th>
<th>Diagrams</th>
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<tbody>
<tr>
<td>Typology</td>
<td><img src="image1" alt="Diagram" /></td>
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<tr>
<td>Luxurious Housing</td>
<td><img src="image2" alt="Diagram" /></td>
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<tr>
<td>Shared Housing (middle class)</td>
<td><img src="image3" alt="Diagram" /></td>
</tr>
<tr>
<td>Appartments (social housing)</td>
<td><img src="image4" alt="Diagram" /></td>
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## Housing Typology

<table>
<thead>
<tr>
<th><strong>Typology</strong></th>
<th><strong>Program</strong></th>
<th><strong>Public Space</strong></th>
<th><strong>Sample</strong></th>
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<td><img src="image10.png" alt="Image" /></td>
<td><img src="image11.png" alt="Image" /></td>
<td><img src="image12.png" alt="Image" /></td>
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- **Open Spaces**:
  - Living Quality
  - Mixed Function
  - Historical Continuity
- **Private Owned Courtyard Housing**
- **Over Crowded Courtyard Housing**
- **Shared Courtyard Housing**
- **Private Owned Open Space**
- **Shared Open Space**
Conclusion

Population: 28,200
Area: 56 ha

A. Low density luxury courtyard housing (sell on market)
B. Medium density shard courtyard housing (rent on market)
C. High density apartment housing (social housing)
Strategy for social integration
social consequence of spatial intervention

I can invest here

I can work/live here

We can spend time here

50m commercial historic monument public facility
social consequence of spatial intervention

I would live here

I can work for him
social consequence of spatial intervention

city center

public facility

historic monument

shared courtyard

social housing

50m

live

work

live

work

city center
summary: social consequence

CULTURAL IDENTITY

URBAN VITALITY

spatial

social

intervention

information flow

community center

job opportunity

cleaning
babysitting
food preparation

social integration

service

urban structure

central axis

courtyards & hutongs

typical life style

urban morphology

urban context

continuity

new

con

nuity

CULTURAL IDENTITY

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nuity
Strategy for transportation
upgrade roads
Design proposal for strategic locations
three themes of intervention
- upgrading public spaces
- adding new nodes in the site, and introduce in new functions to the hutong neighborhood,
- improving living quality for low income residents and investigating new housing types in the site

- empty site
- social housing
- mixed use area
- historic square
- bad quality slab housing
hutong neighborhood
local scale facility
historic heritage
commercial street

local residents activity
tourists/citizen's activity

upgrade facilities
adding programs
diversify housing typologies

Intension
Theme One: Meeting
Design-historic squares

Design_historic squares

- Market behind Bell tower
- Drum tower and square
- Bell tower and square
- Hongen Temple
- Local activities
- Cafe around squares

TOUR

EVENTS

ART

Tourist souvenirs

vision
Design-historic squares
Design-historic squares_front
Design-historic squares_back
Theme Two: Diversity
Design-mixed use area

basic rules
Design-mixed use area

- Human scale
- Historical continuity
- Multi-function
- Openness
- Other districts
- New site
- Hutong neighborhood
Design-mixed use area
Design-mixed use area
selected proposal

East section 1:300

West section 1:300
Design-mixed use area

public spaces
Nodes & Connectivity

1. Loop around heritage and historic square, back square, market.

2. Loop around heritage and historic square, back square, market, mixed use area.

3. Loop around heritage and historic square, back square, market, hutong neighborhood.

4. Loop around heritage and historic square.
Theme Three: delightful life
Design social housing

module study

78 m

90 m

8.6m

7.5m

64.5m²
Design social housing
flexibility of room arrangement

× 1

× 2

× 3

1-2

2-3

3-5
Design_social housing

design proposal
Design_social housing

diagrams for open space & connectivity

main streets

mixed use area

school
Conclusion
WHO?

Stakeholders
What is the role of housing institution?

Housing institution is an organization under Beijing municipality’s supervision. Three key words of housing institution’s obligation:

**investigation**: prepare information for urban regeneration in historic districts

**operation**: housing construction, upgrade public facilities

**management**: management finance flow, supervision on housing quality after regeneration, maintaining housing quality in historic districts, local residents
private developers

middle class

millionaire

low income residents

tourists

citizens
WHEN?

WHY?

HOW?

WHO?

WHEN?

Phasing
PHASE ONE

Results: opportunity for courtyard housing renewal attract private developers introduce more functions into the areas opportunity for urban renovation increase housing infrastructure basic facility upgrade

negotiation
identify housing quality/ property
historic streets regeneration
new site construction
historic monuments /good quality courtyard housing cores
road widen
basic facility upgrade

move in
move out

Results: opportunity for courtyard housing renewal attract private developers introduce more functions into the areas opportunity for urban renovation increase housing infrastructure basic facility upgrade

negotiation
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historic streets regeneration
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historic monuments /good quality courtyard housing cores
road widen
basic facility upgrade

move in
move out

1/3
move in
move out

upgrade facilities
widen roads
regeneration areas in phase one
**Phase Two**

**Economic Feasibility**

<table>
<thead>
<tr>
<th>Function</th>
<th>Percentage</th>
<th>Area (m²)</th>
<th>Profit (RMB/m²/m)</th>
<th>Profit</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial areas</td>
<td>40%</td>
<td>21020.8</td>
<td>202.73</td>
<td>424201.6</td>
<td></td>
</tr>
<tr>
<td>Office/apartments</td>
<td>10%</td>
<td>5255.22</td>
<td>131.1</td>
<td>688959.3</td>
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<tr>
<td>Culture</td>
<td>35%</td>
<td>18393.27</td>
<td>92.24</td>
<td>1696596.2</td>
<td></td>
</tr>
<tr>
<td>Leisure (cafe/bar/gym)</td>
<td>15%</td>
<td>7882.83</td>
<td>138.3</td>
<td>1090196.3</td>
<td></td>
</tr>
<tr>
<td>Open space</td>
<td>30%</td>
<td>15765.66</td>
<td></td>
<td></td>
<td>4169952.4</td>
</tr>
<tr>
<td>Parking</td>
<td>750</td>
<td>30000</td>
<td>61 (360)</td>
<td></td>
<td>270000</td>
</tr>
</tbody>
</table>

Site area = 29690.51 m²

Constructed area = 52552.2 m²

FAR = 1.77

\[ a_{ Fran } = \frac{ r_{nu } }{ 12 } \times \left[ 1 - \frac{ 1 }{ (1 + r)^n } \right] \]
PHASE THREE

LONG TERM REGENERATION

- Empuited courtyard housing renewal/social housing construction
- Define social housing location
- Regeneration areas in phase three
- Phase three
- Combined development
- Local residents
- Housing institution
- Social housing
- Shared courtyards
Summary

EXPLANATION OF PHASING

- heritage
- good quality courtyard housing
- shared courtyard housing
- social housing
- local residents self-organized regeneration
- open spaces
  - living quality
  - mixed function
  - historical continuity
Evaluation

Inner city regeneration

General way
- policy
- use right of land
- demolish/rebuild

My way
- Government
- Private Developers
- Residents
- Housing Corporation

GOVERNMENT
- investor guarantor
- €

BANK

sale
- maintain/renew/construction
- sale/rent
- rent

social integration
urban vitality
upgraded living quality

cultural identity
activity of historic area

Evaluation
## Choices of houses supplied by housing institution

<table>
<thead>
<tr>
<th>HOUSING TYPES</th>
<th>ROOM SIZE</th>
<th>RENT PRICE</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>- 200 m² +</td>
<td>2 million € for sell</td>
</tr>
<tr>
<td></td>
<td>20-90 m²</td>
<td>12-54 €/m Low rental housing</td>
</tr>
<tr>
<td></td>
<td>60-120 m²</td>
<td>12-24 €/m Low rental housing</td>
</tr>
</tbody>
</table>
Strategy used in other historic districts
Character changes of historic districts in Beijing inner city

upgraded nodes:
- strength and adding functions: local-->city- >globe scale nodes;
- attraction to more users;
- improved quality of neighborhood;
- integrated social groups;
- diverse housing types;
- continuity of historic urban forms;

urban vitality activated by more users:
as the changes of nodes from local-->city-->globe level, more users will come to use the regenerated historic districts-
BMW System in Beijing inner city

city scale - metro, bus
district scale - metro, bus, bike
local scale - bus, bike, walk

metro line
bus line
bike lane - streets of historic districts, roads of neighborhood
pedestrian lane - streets of historic districts, roads of neighborhood