Integration Strategy for West Fringe of Xi'an City as a supportive urban tissue in Mega City Plan 2020+
How to combine the current corridor development and the cultural & historic assets by means of the public space network, in order to counteract the fragmentation at the local level and meanwhile benefit the local inhabitants of western fringe of Xi’an City, supplementing the governmental city model.
XI'AN CITY : Complex city
XI'AN CITY Introduction

Population

<table>
<thead>
<tr>
<th>City</th>
<th>Population</th>
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<tbody>
<tr>
<td>Xi'an</td>
<td>7,547,600</td>
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<tr>
<td>Rome</td>
<td>2,726,927</td>
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<tr>
<td>Amsterdam</td>
<td>762,317</td>
</tr>
<tr>
<td>Shenzhen</td>
<td>12,693,000</td>
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</table>

Land Area (sq km)

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<th>Land Area</th>
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</thead>
<tbody>
<tr>
<td>Xi'an</td>
<td>3.547</td>
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<tr>
<td>Rome</td>
<td>1.285</td>
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<tr>
<td>Amsterdam</td>
<td>0.166</td>
</tr>
<tr>
<td>Shenzhen</td>
<td>2.050</td>
</tr>
</tbody>
</table>

History (yr)

<table>
<thead>
<tr>
<th>City</th>
<th>Year</th>
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</thead>
<tbody>
<tr>
<td>Xi'an</td>
<td>3,200 since 1100BC</td>
</tr>
<tr>
<td>Rome</td>
<td>27/60 since 763BC</td>
</tr>
<tr>
<td>Amsterdam</td>
<td>735 since 1257</td>
</tr>
<tr>
<td>Shenzhen</td>
<td>32 since 1978</td>
</tr>
</tbody>
</table>
Monocentric city > Polycentric city > Proximal cities' collaboration > Twin city model > Mega Xi'an city plan 2020+
Condition of local scale

Metro
Railway
Corridors
Streets
Local streets
Preserved heritage park
Problem Definition

Spatial fragmentation and deprived urban quality at the local level because of neglecting the existing conditions and local values.
The availability of the cultural & historic asset area, and the importance of new development area in between two main centralitiy cores, can be combined as the activator in order to integrate the whole in between area become the supportive tissue of the Xi’an Mega City model, meanwhile benefit the localities.
Review of the theory

Networked Cities

Urban Fragmentation

Public space Network

Consistent urban form
City Scale-historical relation

1. 771BC
2. 221BC-207BC
3. 190BC-580AD
4. From 583AD

- First settlement
- Ancient capital city of "QIN"
- Ancient capital city of "HAN"
- Ancient capital city of "TANG"
City Scale—future trends

The Future—Governmental Actions
Vision: Integration of "HARD" & "SOFT" spines

a. Corridor development linking main centralities of two cities

b. Corridor development of business and traffic oriented

c. Green and historical continuity

Spatial transitional point integrated with the "Hard Spine" and "Soft Spine"
Built area

[Map of the built area with a scale of 200m]
Ancient urban pattern of Xi'an City

Contemporary mobility and economy oriented urban pattern
Rethink and redesign the "edges" to absorb flows and developing strength to establish the integrated urban tissue.

The "edges" become the interactive spatial element.
Isolated mono-functional islands
Concept: Design on the edges
Strategy: Activation of edges

Activate the edge by means of

**Landscaping**

Providing diverse landscape quality on the edges by capturing the green flow from natural heritage park to the locality.

**Densifying**

Building densification on the edges in different functions which enable new typologies of public spaces and more capacity for urban diversity.

**Programming**

Proposals of diverse and consistent public activities in order to vitalize the public space network on the edges.
Expected Spatial Relational Effect

City Scale Effect

Form new identical sub-centrality to reinforce the twin city model.

Local Scale Effect

Restructured urban network in the future integrates the local area as the urban tissue with the city structure as a whole.

Keep the green structure coherent and create opportunity to interface the city with green and cultural related space.

Provoke the value of the regional heritage park to the public meanwhile permeate the green quality via the proposed network.
Strategy: Multi-layered working system
Strategy: Edge Strategy
Existing green space
36 sqkm
2210 years
archaeological excavation since 1960s
relics through 3 historical periods
Macro edge: Form the "soft spine"
Macro edge: Form the "soft spine"

Source: Buffalo Bayou Promenade, Houston, TX
Existing systems

- Railway
- Corridors
- Green space
- Existing attractors

200m
Medium edge: Activate the edge by "hard" and "soft"
Medium edge: Permeable public space
Medium edge: Permeable public space
Medium edge: Permeable public space
Medium edge: Spin off to local area

Key transportation nodes

Proposed activators

Existing activators

Build-up area

Relic of ancient city wall

Existing urban green

New green open space

Railway

Corridors

100m
Medium edge: New activators

- Railway
- Corridors
- New green open space
- Proposal area
- Existing urban green
- Rellic of ancient city wall
- Build-up area
- Existing activators
- Proposed activators
- Key transportation nodes

Rellic Park
Railway
Corridors
Proposed activators
Existing activators
Key transportation nodes

100m
Micro edge: Spin off to the neighbourhood

- Spin off to the neighbourhood plan plus reference
- Food market in Barcelona embt
- Glass house community center
- Gardening

Relic Park
Railway
Corridors
New green open space
Proposal area
Existing urban green
Relic of ancient city wall
Build-up area
Existing activators
Proposed activators
Key transportation nodes
Micro edge: Design tools providing permeability

Criteria are dependings of what is surrounded.

+ Large infrastrucutre
+ New housing development projects

+ Green and original agricultural land
+ Local neighbourhood

+ Industrial area

Providing visual accessibility
Place of gethering
Diversity and vitality
Qualified edges
Permeable public spaces
Sense of belonging

Densification on the micro edges(public space, shops at the bottom floor, parking)

Urban agriculture(glass houses, community room)

Conversion of industrial buildings into service functions(sports,education,renturants,bicycle parking,etc.)
Micro edge: Design tools providing permeability

- Densification
- Urban agriculture
- Conversion

Railway
Corridors
New green open space
Proposal area
Existing urban green
Relic of ancient city wall
Build-up area
Existing activators
Proposed activators
Key transportation nodes

100m
Spatial design challenge
How to organize the different level of public space as a network, by means of shaping landscape, meanwhile permeate the qualities to surrounding neighbourhood, in order to integrate the local structure in the new city structure?
Transitional Strip

+City level function

+Local level function

+City growth

+Mega city user

+Local user

+Local cultural & natural value
Potential flows

100m

Future activators of the flow

Site: The existing & potential

100m

Potential flows

Proposed central green flow
Reshape the traditional pattern

Iconic axial regularity of the Chinese traditional architecture

Enrich the spatial condition of the axes for dynamic demands and program, meanwhile improve the permeability.

Iconic public space system of Xi'an city

Propose different transparency of the public space by programing and site structure in order to create dialogue between in and out on the permeable edges.
Proposed spatial structure

Internal Flows + External Feeders

Reactivated attractors
Converted industrial buildings
Street shops
Neighbourhood related functions
Mega city level functions
1st level linkage
2nd level linkage
Strategic elements

Activation on the yard edges

Generator 1. metro station

Generator 2. railway station

Inter-linkages
Design Strategy

Strategy

Generators: the place of flows
Organize the flows from city level to local level by means of landscaping the two station area;

Activation on the edges
by means of adding diverse and mix-used public spaces of different levels--mega city level + neighbourhood level;

Inter-linkages
according to which, the surrounding neighbourhoods would be participated in new urban public life spontaneously by permeable green and public linkages.
Generator 1: metro station area

Landscaping the territory
Generator 1: metro station area
Generator 2: railway station area

Landscaping the territory
Generator 2: railway station area

Landscaping the territory
Activation on the edges
Inter-linkages
Inter-linkages

1. Central green space at regional level
Inter-linkages

1. Central green space at regional level
2. Link at urban level
Inter-linkages

1. Central green space at regional level
2. Link at urban level
3. Landscape with building block
Inter-linkages

Diverse

Typology of public space
Inter-linkages

Regenerated "city village" neighbourhood

Memory of local yard & street morphology
Inter-linkages
"city village" neighbourhood

Various layers of permeable landscape
Design Possible programming illustration 2020+

Cluster of public spaces

Landuse of starting program

Residential
- social housing
- regenerated housing
- subsidy housing
- private property housing
- market retailing
- office building

Commercial
- shopping center
- mixed-use building

Office use
- public transportation
- educational use
- health facility
- entertainment
- administration
- exhibition space

Civic facility

Green space

Preserved area for farming

Landuse 2020+

Residential
- social housing
- regenerated housing
- subsidy housing
- private property housing
- market retailing

Commercial
- shopping center
- mixed-use building

Office use
- office building

Civic facility
- public transportation
- educational use
- health facility
- entertainment
- administration
- exhibition space

Green space

Community gardens
1. transform the "dead urban edges" to active linkages between the new development at regional level and existing local value spatially and functionally.
2. propose different layers of public space network, considering landscaping, flow circulation, and semi-public space to achieve the urban dynamics.
Thank you.
Questions?