Univer ‘city’

new livable creative city in the KNOWLEDGED PERIPHERY of Shenyang

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Urbanization – city expansion fast

High density

Booming city transform towards knowledge economy cause changing urban form
Long term vision for Shenyang – Knowledge capital of Northeast China
South bank of Shenyang - new district of the city

Main expansion direction because of high-tech industry development
Potential landscape resource at south bank
landscape provide chance to built good urban environment different with old city at north bank.
However, with the agglomeration of knowledge clusters, there are some problems emerged......
All knowledge clusters related with urban life locate at the north bank – old city.

River as spatial barrier block the integration of south with the city.

But one can only find high-tech and universities at the south bank.
Spatial segregation caused by social segregation

80,000 knowledge workers living in high price housing

55,000 farmers living in village
High price housing near the river for landscape

High price housing near high-tech park for Knowledge workers
Large scale urban project

Little public space

Closed campus

- Public space
- Public building
- University
- High-tech
Then, what are potential urban elements as instruments to create new urbanity?
New universities can be core urban elements to reorganize spatial structure of the south.

University can serve all 3 different kinds of inhabitants if integrated with ‘urban culture’ street.
Translate programmatic into spatial intervention

Connect the south with traditional city – to be a new organic part of the city
Two routes connect south bank with old city
Two main connections
– route 2 will become more busy to balance traffic amount of route 1
Route 1
Global knowledge economy route for tourist and business men
Route 2

Urban commuting route for commuters

Section B4/5

Section B4

Section B3

Section B2

Section B1
Connection street between route 1 & 2

- Urban living street

- old forbidden city and square

royal park

traditional center

shopping mall and park

media market / TV station / university

culture facility and university along the street
urban living streets are required for real urban life which are needed in the south
Aim - integrate the south with the whole city

Fragment culture resource

Integrate fragmentation into organization of cultural landscape

knowledge production - university

knowledge consumption
- media market, culture center, CBD
Route 2 has more spatial potential to be the main connection between South and the city.
Spatial strategy

Extend distribution of urban activities along route 2

Highlight 3 nodes as new centrality at the south bank

Create new connection streets in-between routes 1&2 as southern counterpart being urban living streets

Continuity

Diversity

Connectivity
Landscape endues unique identity to the South

transition landscape between city and agriculture
Bridge central city with cultural landscape!

connect media market zone (south center of Shenyang)

traditional villages with strong identity (aggregation of Korea people - minority ethnicity in China)
Axis 1 - feeler from central city into landscape
Drive future development!
Axis 2 - emerging bond tie knowledge centrality of central city with southern traditional town

potential artery link two main routes and extend towards traditional town drive future development
Spin-off

- forming organic cultural landscape in the South to echo the structure of the whole city
3 UNIVERSITY COLOR 3 SECTIONS

media market
city memory

constructing culture center

business college

new HST station

university as spatial instruments to organize surrounding urban environment
Strategic plan

Plan area: 576 ha
100,000 new inhabitants
40,000 housing
Land for residential: 376 ha
Density: 106 housing/ha
University area: 78 ha
Floor space: 1.150.000 sqm
11,000 students
Urban culture related with university: 55 ha
10-15 companies
11,000 employees
Commercial area: 67 ha
Residents: 5,000

The university has a similar size to MIT [US] (Massachusetts Institute of Technology, Cambridge).
Shenyang city (5.2 million people) has the similar size with large Boston metropolitan area (4.5 million).
Green & blue as feeder from the river
River view
PLAN - tram connect south with the city
existing subway

- knowledge clusters and downtown
- railway station
- railway line
- existing subway
- proposed metro line
PLAN - tram connect south with the city

proposed metro line consider from city scale (see collective work)
PLAN - tram connect south with the city
proposed tram line - connect south with the city
PLN - public transport

transit among different public transport

3 transit station
distance: 1000 - 1500m
3 boulevards - spatial structure of university

250m

basic urban grid - main direction

90m

basic urban grid - secondary direction

250m * 90m grid: flexible urban form north to south - mainly for Motor Vehicle north to south is the main direction for traffic of the site due to the position (bridge area to cross the river) west to east - mainly for pedestrian
special block
- university and main shopping street

general block
- mixed use residential

public building and space used both by university and general public people
Learning from existing knowledge clusters domain by universities in Shenyang as design example
Cluster 1 - university & urban culture connect by two streets

Common example in Chinese cities

University inside the poor neighborhood

streets connect university and retail, park
Cluster 2 - university in-between office streets

Good example especially together with railway station

University in commercial center

University in-between office streets
Cluster 3 - three universities along main street and generate a special shopping district (art, computer, software)

Universities in urban cultural district

Best example because of highly mixed knowledge clusters
Universities in the knowledge periphery

Cluster 4 - 2 universities in the KNOWLEDGED PERIPHERY far from other urban context

Bad example in the south

No relationship between the new cultural center and universities.

Poor public space
UNIVERSITY DESIGN

- 3 different relationship between university & 'urban culture'

- avenue as connect universities and city

- public space and landscape organized by university avenue
University design - avenue as spatial backbone
University 1 - Infiltrate

- 'urban culture' and technology faculty form urban ‘hotspot’ as articulation in-between two banks
- Public space infiltrate into campus as meeting places
Landscape and 'urban culture' locate homogeniously with art faculty.
University 3 - Branch

business faculty fertilize business district as branch and connect urban and green

transition campus
University design - public space link with avenue

avenue connect landscape and public space
University design - avenue & public space

sense of place

Appreciate architecture

elevation angle < 40
distance/height = D/H = 1.3 ~ 2.4
tram add green and different experience to the avenue
Main shopping street

Before

high speed road

main shopping street with department store block along it

After

landscape in the middle of the road, shopping block has inside pedestrian street and public space and good accessibility to public transport - new metro line
pedestrian public space inside the block
CONTROL
- urban design guideline of residential block

Zone 1
- low density

Zone 2
- high density
- middle density

Zone 3
- high density
- middle density
- very high density

Density in different zone
Zone 1

- The first zone cross the river in the south bank
- transition zone
- low density, good access
Zone 2

general residential area
with middle density
FAR 1.8 ~ 2.1

Zone 3
University and shopping district

high density  FAR 2.5 ~ 3

Office and station TOD
extrremely high density  FAR > 4
Low density - with large green in zone 1 which is near the river

High density - not suitable for Shenyang because of cold weather

Middle density - in zone 2,3 to the south of zone 1

80% blocks with high density
6 floor, FAR 2.2
216 housing

20% blocks with low density
3 floor, FAR 1.3
64 housing
General residential block
- Ground floor retail along roads with pedestrian orientation
- Innerblock green with parking
- Parking along secondary roads
General residential block - main road

D/H = 1.78
north to south
- mainly for Motor Vehicle with landscape in the middle
General residential block - secondary road

west to east
- mainly for pedestrian with retail along the route and also has dedicated lane for bus and bike. There are some parking place along the road, too.
Future development