What is twin city?
From landscape aspect, there are also other types of infrastructures. Cooperation between cities is actually a regional design assignment involving more than logistic system.
RESEARCH QUESTION

How to develop a landscape framework which creates a condition for economy, social space, and ecology development in Twin City Region mutual buffer zone by using transportation, water, green and recreational infrastructures?
Vienna, Austria - Bratislava, Slovakia
2. Case Study Site
Twin City Region: New Center of Europe

Vienna, Lower-Austria, Bratislava
Two Centres – One Economic Region

Culture

WIEN (Vienna) 1.731 million (2012)

BRATISLAVA (Bratislava) 411,228 (2011)

50 kilometers

History

Attravity for companies

Global Competition

Effective Governance

Quality of life for citizens
Over 2 Million Global Competition for citizens

Road
- Connect people, create wealth
- Accelerate expansion
- Offer solutions instead of jam complain

Rail
- Everything on track
- Close gaps, improve performance
- A common network
- Gateway between Europe and Asia

Aviation
- International flies to Vienna
- Europe flies to Vienna +Bratislava
- Location advantage multimodality

Marine
- Twin Harbour: Hub and Gateway
- Location advantage multimodality

Governance

Quality of life for citizens

Attraction for companies
Yes, there are two stations to Vienna.

Do you know how can I get to Vienna?

SUCCESS?

VIENNA

Bratislava? um, sorry I don’t know.

Do you know how can I get to Bratislava?
3. Theory
TRANSPORTATION INFRASTRUCTURE
INFRASTRUCTURE FOR ECONOMY, SOCIAL LIFES, RECREATIONS AND SO ON, MOSTLY SERVICE HIGH DYNAMIC LANDS.

Rail
Road
Airport
Harbor
...

WATER INFRASTRUCTURE
INFRASTRUCTURE FOR RIVERS, LAKES, PONDS, AND SO ON, INCLUDING URBAN AREAS AND RURAL AREAS.

Rivers
Large lakes
Smaller retention ponds
Road-side ponds
...

GREEN INFRASTRUCTURE
INFRASTRUCTURE FOR ECOLOGY. WETLANDS, MEADOWS AND FORESTS THAT PROVIDE HABITAT AND OTHER ENVIRONMENTAL BENEFIT

Wetlands
Meadows
Forests
Urban green area
...

RECREATION INFRASTRUCTURE
INFRASTRUCTURE FOR RECREATIONAL ACTIVITIES. MASSIVE TOURISM AND LEISURE ACTIVITIES THAT PROVIDE RELAXING LOCATIONS AND COMMUNICATIONS

National parks
Urban parks
Cycling paths
beaches
...

Landscape Framework
WATER INFRASTRUCTURE

INFRASTRUCTURE FOR RIVERS, LAKES, PONDS, AND SO ON, INCLUDING URBAN AREAS AND RURAL AREAS.

Rivers
Large lakes
Smaller retention ponds
Road-side ponds
...
2013 June  Bratislava Old Town holding out - photo: Lia Cordery

Read more: Updated: Danube Peaking Over 10 Metres; Flooding Continues | The Daily Slovakia
http://www.thedaily.sk/river-danube-peaking-over-10-metres-tomorrow-flooding-continues/#ixzz2qgsGo33rh
GREEN INFRASTRUCTURE

INFRASTRUCTURE FOR ECOLOGY. WETLANDS, MEADOWS AND FORESTS THAT PROVIDE HABITAT AND OTHER ENVIRONMENTAL BENEFIT

Wetlands
Meadows
Forests
Urban green area
...

...
Great variety of habitats:
- Flow of the Danube
- Oxbow lakes and side arms; sloughs and all types of bodies of water
- Gravel banks on islands and shores
- Flat banks with silting and transitions from water to land
- Steep riverbanks
- Riparian forests (softwood and hardwood) and slope forests
- Meadows and xeric habitats

**National Park Donau Auen**

Functions:
- A "green ribbon" connecting the conurbations of Vienna and Bratislava;
- The largest complete, (near) ecologically intact natural riverine environment of its kind in Central Europe;
- Characterised by the nearly free-flowing Danube, which here retains the character of an alpine stream;
- An interplay of ecosystems which exhibit an enormous variety of habitats, plant and animal species;
- Home and refuge to many endangered plant and animal species;
- Impresses with its great natural beauty;
- Natural retention area for floodwaters;
- Guarantee for high-quality drinking water resources;
- So-called "green lung" and climatic regulator for the region;
- Recreational area for the population

Source from: [http://www.donauauen.at/](http://www.donauauen.at/)
Woodland: occupy space, push flood flowing in a faster speed than before, as a result, the power of the flood get stronger at next phase.
TRANSPORTATION INFRASTRUCTURE

INFRASTRUCTURE FOR ECONOMY, SOCIAL LIFES, RECREATIONS AND SO ON, MOSTLY SERVICE HIGH DYNAMIC LANDS.

Rail
Road
Airport
Harbor
...

[Diagram of transportation infrastructure]
Road

Highway
Main roads
Boundaries
Old town

Potentional line to get further development

Related to urban fabric, agriculture, industry.
Mapping of elevation with logistic system
RECREATION INFRASTRUCTURE

INFRASTRUCTURE FOR RECREATIONAL ACTIVITIES. MASSIVE TOURISM AND LEISURE ACTIVITIES THAT PROVIDE RELAXING LOCATIONS AND COMMUNICATIONS

National parks
Urban parks
Cycling paths
beaches
...
...
A fast network

/slow network?

B
Global warming
Narrow waterway
Woodland

Flood area?

Forest
Wetland
conflict with other aspects

developing space?

Rail
Road
Airport
Harbor

Slow network?

less attention
lose identity
weak accessibility

Awareness?

Flood area?

developing space?

Slow network?

Awareness?

Danube

landscape

culture

heritage
fast network

slow network?

SLOW NETWORK

BACK BONE

various accessibility
AWARENESS

- slow network to explore the beauty of landscape
- enhance local characteristic to see diversity
- visibility of attraction
**FLOOD AREA**
- Suitable Location
- Bypass
- Flooding Pond
- Flooding Control Area

**GREEN SPACE**
- high dynamic lands

**SLOW NETWORK**
- BACK BONE
- various accessibility

**AWARENESS**
- slow network to explore the beauty of landscape
- enhance local characteristic to see diversity
- visibility of attraction
6. Application
FLOODING CONTROL AREA

GREEN SPACE

enhance local characteristic to see

visibility of attraction

slow network to explore the beauty of landscape

AWARENESS

agriculture lands

Flooding Pond

Bypass

Wetland

Meadow

Woodland

FLOODING AREA

SLOW NETWORK
VARIOUS TYPES OF WATER STORAGE (POND)

Lake

Beach

Marsh

Lake
Long time

[Diagram showing different stages of a landscape over time, labeled "Wetland," "Meadow," and "Woodland."магазине

[Map showing the layout of a wetland area with different land use types indicated by color codes.]
Short time
BACK BONE

various accessibility

BACK BONE
various accessibility
enhance local characteristic to see diversity
various accessibility
Enhance the spatial identity of each unique heritage

case study: Heimburg Castle
Heimburg Castle

Beginning of this area around 1050
developing into a small town with the risen and fallen of Heimburg Castle
Hainburg an der Donau

become the biggest municipality around
Rebuild the connection between town and castle
Enhance this unique spatial pattern, let local residence and visitors be aware of it.
Heimburg castle
View from Hainburg tram station to castle

repair its visual attraction
Franz Kutschera drawing, 1840 (Lower Austrian State Library)
Remains

Framework

to protect Remains from new structure

Stairs

accessibility

Pine bricks

original material (stone, heavy)

New tower

new viewpoint

new materials (pine wood, light)
New viewpoint at this region

New Tower at Hainburg Castle
enhance local characteristic
to see diversity

- **Yellow**: Wine production
- **Green**: Social / Religions
- **Blue**: Castles
- **Pink**: Vilas
- **Green**: Green / playground
wild plants park
various accessibility
visibility of attraction
Mappings of 6 closest sections between S-bahn 7 and Danube
visibility of attraction

various accessibility
RIVERSIDE PATH

Walking Cycling

Neighborhood parks
Stop: Old Bridge
first stop from Bratislava
TRANSPORTATION X GREEN

Stop: Aupark Shopping Center
reuse abandon open space as green infrastructure
Track with wild plants at new Bratislava
Dangerous / Convenient?
Stop: Sand Dune
connect
Austria

Slovakia

attract passengers’ attentions that this is the boundary between two countries cooperation/ boundary
BEACH WITH BRIDGE: high water level
Twin City Region

Vienna

Bratislava

Question?

Thank you