The Dancing Boundary
Towards regional development of the border lands between Bratislava and Vienna

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The Dancing Boundary -- Towards regional development of the border lands in Bratislava
Landscape is an important concept within humanities, social sciences as well as natural sciences.

---Forman 1995
A cross-border region (CBR) is a territorial entity that is made of several local or regional authorities that are co-located yet belong to different nation states.

There are 70 crossborder regions in Europe today under the name of “euroregions”, the number of cross-border co-operation is gradually increasing from economic points to sociology, yet the spatial planning is still a relatively new area.
**Question**: How to develop a cross border region by using landscape approach to facilitate the spatial development and social interactions?
The Danube river basin
Length (km): 2885 km
Drainage Area (km²): 817 000
Discharge (m³/s): 6 500
Countries: 10
Population: 80 000 000
Sea at Mouth: Black Sea

Danube river basin in Slovakia
River length: 1869 km, area: 131338 km²
old Meander belt
Increased precipitation and irregular flows
Bratislava is the only capital city in the world that sits at the border with three countries. The water management between countries are also different.
But what happens in the border?

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The National Park Donau-Auen

- free flowing Danube
- 36 km
- the last major flood plains in Central Europe

The Danube Floodplain

- Heavily Modified
- 76 km
- Oxbow dikes
- sand and gravel banks
- forests and meadows

Vienna

Bratislava

38 km

free flowing Danube

Vienna
Connectivity:
- International Bicycle path
- Twin city water line
- Highway
- Road
- Train

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62km to Vienna
1 hour distance by highway
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- High salary
- Low housing rent
- Cheap product
- Industrial development
- Connectivity:
  - International Bicycle path
  - Twin city water line
  - High way
  - Road
  - Train

2000 daily commuters
3 hours to Vienna
Bratislava
Historical connections

Austrian
- 12 crossing bridges
- Railroads & Waterways
  - Austro-Hungarian Empire
  - A direct tram (1848-1968)

Bratislava
Historical connections

Austrian

- 12 crossing bridges
- Railroads & Waterways
- Austro-Hungarian Empire
- A direct tram (1848-1968)

Defensive position

- Individual growing
- Afraid of ecological problems
- Inundation of cheap products
- Defense position
- Offense position
- Decline of production/unemployment/social degradation

Bratislava

- Individual growing
- Offense position
- Decline of production/unemployment/social degradation
- Member of EU, 2004

- Twin city line/ bicycle bridge
- Future spatial development?

Questions:

- ?

Future spatial development?
Historical flood events
Sep, 1899
July, 1954
June, 1965
August 2002

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rural area of different countries; vulnerable lands; flooding downstream
To develop a cross border region by using landscape approach, facilitating the spatial development and social interactions.

1) **How does the natural and urban system work in the CBR?** What is the relationship between natural and urban process? What is the role and identity of the landscape in the CBR?

2) Does the current regional network meet the demands of its residents? What are the potential landscape approaches for spatial redevelopment at the CBR?

3) How can I **use** these approaches to design a region in the cross border land?

4) What can I **learn** from the research and design process?
Case Study

**Moselle Landscape Network, Germany**

**Landscape as Entity:** Natural and cultural system are integrated as a whole river-landscape.

**Landscape as Process:** Co-operated plan for potential flood zones, room for the dynamics of urbanization, settlement and landscape development.

**Landscape as Infrastructure:** Waterfront infrastructure, transport, intensifying accessibility and mobility to meet inhabitants' everyday life.

**Multifunctional floodplain, St. Louis**

**Landscape as Entity:** The river is a part of the whole spatial image.

**Landscape as Process:** open new land for nature preserves hunting or local food production, redevelopment of the city's old areas

**Landscape as Infrastructure:** Green by-pass, plant more water-tolerant crops, port construction
Regional Design Principles

Landscape as Entity ➔ Landscape as Process ➔ Landscape as Infrastructure

Natural system
- geomorphology
- water
- soil
- wetland
- forest
- species...

Urban system
- urban fabric
- transportation
- park
- cultural land
- history...

Social aspect
Ecology

Low Dynamic
natural system
ecology

High Dynamic
urban system

Green
- wetland
- meadow
- forest
- urban green space

Blue
- river
- pond

Transport
- rail
- road
- port
- bicycle path

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Landscape as Entity...

Natural system
  geomorphology
  water
  soil
  wetland
  forest
  species...

Urban system
  urban fabric
  transportation
  park
  cultural land
  history...

Social aspect
Ecology
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the identity of the rural area
Two natural phenomena forms the main open space

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Continuous urban fabric  Discontinuous High dense urban fabric  Discontinuous middle dense urban fabric

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‘Danube Twins’ event, EDTWIN
500 pupils from Vienna and Bratislava attended a course together, spending one day in their neighbouring city. Workshops and vocational internships, planning and organising a visit to a neighbouring region.

Bicycle trip to Austria
all the people around us were speaking Slovak, and even the waitress was speaking limited, broken Slovak to the clientele. Hainburg is clearly a popular weekend destination for Bratislavans.
Landscape as Process...

Low Dynamic
natural system
ecology

High Dynamic
urban system
1763 inhabitants: 31,700

Weekly market and fairs 7 times a year

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1802 - inhabitants: 29,600

Honey, leather, wood, fish, wine, cattle
market of Corn, Hay, Coal, Fabrics, shoes

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Industrial development
Development of apartment and blocks
Rail, road constructions

1875- inhabitants: 47,000

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current inhabitants: 500,000

Bank/insurance/trade,
120 associations after war two
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Conflict of land use

There is no clear distinction between Nature, Cultural landscape and Settlements, but the conflict exist
Policy Support
The New Land Use Plan, 2007

- provide its inhabitants with access to the border area to the southwest and northwest of Bratislava.

- Regulation of the development in these suburban areas is needed in order to maintain good relations with nearby foreign communities, as well as to prevent devastation of the natural environment and the green belt.

- its territorial and functional relations with the neighbouring countries will be renewed.
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Development?
Landscape as Infrastructure.

Green
- wetland
- meadow
- forest
- urban green space

Blue
- river
- pond

Transport
- rail
- road
- port
- bicycle path

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## SWOT

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<thead>
<tr>
<th>S</th>
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<tbody>
<tr>
<td><strong>Geographic location</strong>&lt;br&gt;lies in between 3 countries along the river border for twin city region</td>
<td><strong>embedded in the mountains transportation limited</strong>&lt;br&gt;irregular water flow</td>
<td><strong>Border location cross-border cooperation</strong>&lt;br&gt;Development of <strong>ecologically agriculture</strong> transform into recreational use</td>
<td>Damaged by fishery tourism devastation by mining</td>
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<tr>
<td><strong>Landscape environs</strong>&lt;br&gt;well preserved landscape high aesthetic potential capacity of unbuilt areas for another uses</td>
<td></td>
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<tr>
<td><strong>Population Employment</strong>&lt;br&gt;stable population low criminality</td>
<td><strong>insufficient working opportunities</strong>&lt;br&gt;employment of tourism</td>
<td></td>
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<tr>
<td><strong>Economics</strong>&lt;br&gt;good condition for agriculture tradition of vine</td>
<td><strong>decaying traditional industry</strong>&lt;br&gt;development of vine recreational agriculture historical tradition</td>
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<tr>
<td><strong>Public and technic facilities</strong>&lt;br&gt;educational facilities</td>
<td><strong>insufficient of products offer in shops</strong>&lt;br&gt;restructuring social services</td>
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<tr>
<td><strong>Transportation</strong>&lt;br&gt;border transportation high way international bycicle</td>
<td><strong>low qulity infrastructure bad services absence of car bypass</strong>&lt;br&gt;construction of <strong>new route</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Tourism</strong>&lt;br&gt;cultural values natural environs dense potential cycling</td>
<td><strong>insufficient facilities low quality infrastructures</strong>&lt;br&gt;increase income from tourism new forms of <strong>tourism</strong> traditional events</td>
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<td><strong>Settlement</strong>&lt;br&gt;process of suburbanization</td>
<td><strong>private objects</strong>&lt;br&gt;imbrove <strong>settlement structure</strong></td>
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"The job of landscape architect is to provide constantly pleasing movement patterns such that our lives can be given the continuous sense of dance." -- Lawrence Halprin

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branches for river

Seasonal variation
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spin around
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· Splash water
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- spin around
- splash water
- highlight
- lift and drop
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- Lift and drop
Design assignment

- Build up own theoretical structure based on research, reading articles and books.
- Research on references, for instance, case study, finding principles and methodology which can be used in the design.
- Systematic analysis based on selected information as a support for hypothesis.
  Analysis of layers of natural system and cultural system.
  Analysis of related spatial experience.
- Evaluation and proposal: assess relationships between analysis and summarize in schemes to figure out what is potential for the regional development.
- Clear Regional design concept and elaboration on regional plan based on the analysis to facilitate the potential development.
- Elaborate regional design and select local scale for detailed intervention.
- Evaluation and develop a complete design through reflection of each steps.