Archipelago

a Landscape of social spatial opportunities.

In case of Petrzalka, South of Bratislava, Slovakia.
SITE ANALYSIS AND PROJECT HYPOTHESIS

# Project Title and Abstract.
# Theoretical Structure.
  - Literature (min 3 articles).
  - Word formulation of project and site.
# Methodology and Planning.
# Site Research.
  - Regional Analysis.
  - Local Analysis.
  - Experimental Analysis.
  - Diagram of relevant landscape system.
  - Historical Research.
  - Present Research.

SITE SELECTION AND CONCEPT DESIGN

# Project Title and Abstract.
# Theoretical Structure.
  - Abstract.
# Methodology and Planning.
# Mapping.
# Conceptual Design.
  - Conceptual Diagram
  - Site Selection
  - Regional Concept
# Design.
# 3D Drawings and Collages.
# Working Model (conceptual).

DETAIL DESIGN

# Conceptual Diagrams
# Regional Concept
# Design
# Technical Drawing Detail
# 3D Drawings and Collages.
# Working Model 1:200

FINAL DESIGN

# Integral report (theoretical and Methodological Structure).
# Review Analysis
# Final Design
  - Conceptual Diagram
  - Regional Concept
  - Design
  - Technical Drawing Detail
  - 3D Drawings and Collages.
  - Presentation Model 1:200

PUBLIC PRESENTATION

# Integral report (theoretical and Methodological Structure).
# Final Presentation.

TIME SCHEDULE
CONTEXT EXPLANATION
Fascination
Site Selection
Problem Statement
Research Question

ANALYSIS & POTENTIAL
Context
Analysis
Flood analysis
Rainwater analysis
Functional analysis
Social analysis
Spatial analysis
Ecological analysis
Potential
Conclusion map
Potential map

APPROACH & CONCEPT
Concept
Theory
Case Study
Flood water Toolbox
Rainwater Toolbox
New Approach

DESIGN ELABORATION
Regional design concept
Design Principles
Neighborhood Strategies

OUTLOOK
Scale Design
Regional Design
City scale Design
Neighborhood scale Design
Landscape gives sense of community which connect people to their territory.
Bratislava, Slovakia
Most part are sandy. Some parts are gravel from Holocene and Pleistocene.

Salix-Populus floodplain forest
(Fr. wood alluvial forests)

Fraxinus-Ulmus-Quercus floodplain
(hardwood alluvial forest)

Alnus-Fraxinus
(Submountain floodplain forest)

RIVER ALLUVIAL FAN

WOODLAND
Salix-Populus floodplain forest

MARCH

FIELD

SWAMP

VEGETATION
RHYTHM OF PRECIPITATION, EVAPORATION & PERCOLATION

POSSIBLE FLOOD AREA IN 48 HOURS

PERMEABILITY

Seasonal Storage 14 cm. (100% of Total Area)
LOST CONNECTION
BETWEEN OLD HISTORICAL CITY - NEW RESIDENTIAL DEVELOPMENT
PETRZALKA IDENTITY

Film by Juraj Chipk
Source: http://festival.azyl.sk/player/play.html?id=1338
INTROVERTED NEIGHBORHOOD

X

NO CONNECTION TO OPEN SPACE

X

INTROVERTED NEIGHBORHOOD

SEPERATED

NO CONNECTION BETWEEN EACH OTHER

X

INTROVERT NEIGHBORHOOD
disconnected from green central spine of the city.

LOW MAINTAINANCE BLDG / AREAS

Petrzalka is blocked by Highway. Accessibility is by crossing bridges.

UNREFERENCE LEVEL

Unrelated space for users, which course no activities.
UNUSED RIVER FRONT / SPACES

CITY IS DISCONNECTED

Petrzalka is blocked by Highway. Accessibility is by crossing bridges.
How landscape can give value to the urban space which bring specific sense of community. How landscape can provide social spatial opportunities while reconnect urban tissue and people in floodplain area. How to reconnect the relationship of new-old establishment. What are the strategies that can achieve the better quality space, provide the sustainable and livability city for people of Bratislava.
NEW FUNCTION BUILDINGS

MORE SPACE FOR THE CITY

TRANSPORTATION

BRIDGE BUILDING

WATERFRONT PLAZA

SMALL WATERFRONT HOUSE

LEFT OVER SPACE

OPEN SPACE CLOSE TO RESIDENCE
The University of Economics is based in Petržalka, with campuses situated in different locations around Bratislava.

There are 11 elementary schools and 19 kindergartens administered by the borough.[12][13] Gymnasium high schools include the state-administered Albert Einstein[14] and Pankúchova 6 gymnasiu[m][15] and the private Mercury Gymnasium.[16]

The borough is also known for its football club, Artmedia Bratislava, a participant in the 2005–06 UEFA Champions League.
Place Attachment.

Source:

Fig 1. The tripartite model of place attachment.
Neutral ground
Leveler
Conversation is main activity
Accessibility and accommodation
The regulars
A low profile
The mood is playful
A home away from home


Public Realm
stranger or categorical
the world of strangers and the ‘street’

Parochial Realm
communal
Characterized by sense of commonality among acquaintances and neighbors who are involved in interpersonal networks that are located within ‘communities’

Private Realm
intimate
Characterized by ties of intimacy among primary groups members who are located within household and personal networks

“Third Place”

“anchors” of community life and facilitate and foster broader, more creative interaction. All societies already have informal meeting places; what is new in modern times is the intentionality of seeking them out as vital to current societal needs.
Cultural Dimension of Archipelago

Public  ———  Pluralism  ———  Collectivism  ———  Individualism  ———  Private

Encounter  ———  Third place  ———  Retreat  ———  A low profile

Sharing  ———  Accessibility and accommodation  ———  Self-sustaining  ———  A home away from home

Neutral ground  ———  Leveler  ———  Conversation is main activity
FLOOD PLAIN

EXTENDING THE SPACE

PLACING OVER THE WATER

TOLERATING

EVADING

ADAPTING

RIVER BED AND CURRENT

DEFLECTING THE CURRENT

GRADING THE CHANNEL

VARYING THE RIVERBED

VARYING THE RIVERBED REINFORCEMENT

DYNAMIC RIVER LANDSCAPE

ALLOWING CHANNEL MIGRATION

INITIATING CHANNEL DYNAMICS

CREATING NEW CHANNELS

RESTRICTING CHANNEL DYNAMICS

River, space, design.
REGIONAL SCALE

EXTENDING THE SPACE

TOLERATING

CONSTRUCTED WETLAND

STREAM

NATURE RESERVE

CITY SCALE

PLACING OVER THE WATER

VARYING THE RIVERBED

VARYING THE BANK REINFORCEMENT

BIOSWALE

OPEN CANAL

UNDERGROUND SYSTEM

WATER PLAYGROUND

NEIGHBORHOOD SCALE

GREEN ROOF

OPEN GUTTER COURTYARD

RAIN GARDEN

PAVEMENT IN COURTYARD

RETENTION BASIN


Illustration by Author

**Bijlmer, Amsterdam, The Netherlands**

**Before**

Demolition of high-rise flat blocks
Rehousing of residents
Restructuring of public areas
Repositioning of the blocks of flats

**After**
Greater New Orleans possesses a 100-year hurricane protection system—the envy of other coastal cities. But with more than sixty inches of rain each year and growing risk posed by climate change, last century’s overmatched drainage infrastructure is inadequate to present and future challenges. The consequences of the current approach to water management, which removes stormwater as fast as possible, are visible in sinking land and broken infrastructure.

With the Urban Water Plan, Greater New Orleans can directly address these challenges and make better use of its water assets, while bringing innovations in engineering, planning, and design to other coastal regions where robust water infrastructure is critical to survival and economic prosperity.

**Principles: Adapting the Flow**

- **Water**
- When it rains, slow and store
- **Ecology**
- Live with Water
- Work with Nature
- **People**
- Work Together

Design for Adaptation

The Urban Water Plan proposes the restoration of the city’s canals to prominence as historic water corridors, each of which provides the city’s residents with access to new water-based amenities in the form of blueways, greenways, water plazas, and parklands.

Restored wetland habitats, linear parklands, and a combination of urban blueways and neighborhood-scale water features build upon the basin’s existing canal network and ecological assets.
REGIONAL SCALE

in case of Petrzalka, Bratislava

Global Region

Connected green-blue corridor

Neighborhood cities Vienna, Budapest

Petrzalka

Identity

Place Attachment

Public

Pluralism

Encounter

Collectivism

Third place

Sharing

Individualism

Private

Border / Semi Identity

Solitude

Connecting green-blue corridor

Private

Identity

Place Attachment

Public

Pluralism

Encounter

Collectivism

Third place

Sharing

Individualism

Private

Border / Semi Identity

Solitude
Complete the green structure of the Region.
WATER MANAGEMENT

Regional scale: FLOODED FROM RIVER - By pass protect both old-new city flooding
Local scale: FLOODED FROM CITY - Rain waters storage and discharge protect town flooding and flood in city downstream

connect water structure
Flood Situation
Wet Season (mostly rain in June-July)

Dry Season

Section Diagram
By-pass section show different level of channel to support the fluctuated water level, water channel can become ecological green corridor in dry season.
MIDDLE SCALE

Public — Pluralism — Center Spine of City

Identity

Encounter

Neighborhood Courtyard — Place Attachment — Collectivism

Third place

Sharing

Individualism — Private

Retreat

Self-sustaining

Border / Semi Identity — Solitude

Collectivism

Sharing

Individualism

Self-sustaining

Private

Solitude
Island - Isolateness
People generation - Individualist who want to share
Island - self world which can be connect to the outer world.
Connector - linkage to the others
Border - define an island openness - enclosure.
Local Network

Church / local community place
Lack of Connection
Multiple crossing

Local Network
Diagram - City scale

Water channels in the city is Urban water collection. The water from rainstorm is stored and discharged at the suitable period to prevent flood damage that can occur in the downstream city.

The water channels' appearance make the cityscape as an Archipalego.
Island
Surrounding / Border
in between Island
Fluid Landscape
Connector
Neighborhood Landscape
Heart
Inner of islands
Archipelago
Place Attachment
“The bonding that occurs between individuals and their meaningful environments”

Radical Contextualism
“Not only a respect for reality and existing conditions, but also an openness to multiple layers of meaning and wide variety of inputs.”
FLUID LANDSCAPE

Cultural Landscape

Social Landscape

Natural Landscape
TRAM STATION - NEW URBAN HUB

Cross function
Neighborhood Garden
between NEIGHBORHOOD
SEASONAL ASPECT

DRY SEASON

RAINNY SEASON

NORMAL LEVEL FLUCTUATION

HIGH LEVEL FLUCTUATION
Step-Stair Function on top of terrain.

Lifted Deck - Passage on top of terrain.

Ramp passage integrated with terrain.

Ramp passage Cut in terrain.
**Existing Forest**
- Fagus sylvatica (Beech)
- Salix Alba (White willow)
- Salix Alba (White willow)
- Sorbus Torminalis (Checker tree)
- Tilia Cordata (Tilia)

**Floodplain Forest**
- Salix Fragilis (Brittle willow)
- Alnus glutinosa (Common alder)
- Salix sepulcralis 'Chrysocoma' (Weeping willow)

**Shrub & Meadow**
- Sambucus Nigra (Elder, Elder berry)
- Alnus glutinosa (Common alder)
- Lythrum Salicaria (Purple loosestrife)

**Wetland & Swamp**
- Carex Pendula (Weeping sedge)
- Carex Pendula (Weeping sedge)
- Stratiotes (Water soldier)
- Nuphar Lutea (Yellow water lily)

**Species**
- Corncrake
- White Stork
- Bobbin's Ruffe
- Common

PLANTATION page 63
NEIGHBORHOOD SCALE

- Pluralism
  - Public
  - Encounter

- Collectivism
  - Neighborhood Courtyard
  - Third place
  - Sharing
  - Border / Semi Identity
  - ‘Place’

- Individualism
  - Semi Link
  - Individual Unit
  - Retreat
  - Self-sustaining
  - Solitude

- Identity

- Place Attachment

- Semi Link
* Private space
* Not connect to city spine.

1. View towards each other.
2. Solid view of concrete block.
4. Unrelated structure (to themselves urban infrastructure).
5. No private/semi private space.
6. Same height level.
7. Connect directly to infrastructure.

4. P4.6 open courtyard = no usage.
5. Shops/facilities serve outside.
6. Different level of height.
Neighborhood Heart
Separated residence from traffic and parking lot.
Tracking local trail.
BORDER WATER
Separated residence from traffic and parking lot.
Tracking local trail.
TYPE 01: ENCLOSED COURTYARD
TYPE 02: PARALLEL BLOCK
RAISED BORDER
Define strip area.
Protect from traffic.
Create waterfall sound.

TYPE 02 : PARALLEL BLOCK
ISLAND DEFINED
Add territories and arrangement.
Specific functions in each island.
TYPE 03 : SCATTERED SPACE
CENTER PLACE
Define usage area by adding elements.
Leading elements.
SCALE RELATION WITH WATER

Residence scale

Neighborhood scale

Urban scale

Region scale

Collect rainwater in the neighborhood.
Collect Rain water in Neighborhood. 
Retain at Border’s water
Transfer to Purifying landscape
Transfer to City’s creek
Discharge clean water

Bioswale along roads
Reflection
The Archipelago City
Piecing together Collectivities

Europe Metropolis
Central ambiguity its historic centers float in larger metropolitan fields - Historical facade mask the pervasive reality of the un-city.

Source: 'Imagining Nothingness' in: OMA, Rem Koolhaas and Bruce Mau (eds.), SMLXL (Rotterdam, 1995), 198-203.

WE

Contemporary Society

Contemporary society, according to social and political scientists, is characterised by at least three fundamental directions:

- Increasing human interconnection through a network of relationships that is progressively covering the whole planet;
- The pace and depth of the evolution of human ways of life determined by technological innovation represent an absolute novelty in human history;
- The scale of archetypical and ecological transformation due to the interaction between evolutionary factors (social, cultural, economic, and technological) has no historical precedent.


A tension in the contemporary city in its inability to combine a traditional form of public space, offering cohesion and a sense of community, with the extensive desire for individualization that is also part of contemporary society.

Individualism

Individualists promote the exercise of one's goals and desires and so value independence and self-reliance and advocate that interests of the individual should achieve precedence over the state or a social group, while opposing external interference upon one's own interests by society or institutions.


I (me)

- Individualism is the belief that personal needs are more important than the needs of society as a whole.
- It is said to have first developed among Baby Boomers, born after WWII.
- The researchers examined factors commonly thought to be linked with cultural individualism.
- These included the use of so-called individualist words in books, such as 'I' and 'me', during the past 150 years.
- They also looked at the percentage of single-child families, how many adults now live alone, divorce rates and the prevalence of unique baby names.
- All of these factors, especially uniqueness, are deemed to be key drivers of individualism.


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The potential of architecture (and LANDSCAPE) to create pocket of meaning and significant within the urban context.

“Forming a sense of Community that can transcend the purely individual without destroying the freedom of Individuation.”


'Collectivity' in between the traditional idea of public and the private. Forming a Collective.

Collectivity
Collectivism
Third place
Place Attachment
Border / Semi Identity
Solitude

Non place

Public
Pluralism
Encounter

Collectivism
Third place
Sharing

Individualism
Retreat
Self-sustaining

Private

Center Spine of City
Identity

Neighborhood Courtyard
Place Attachment

Semi Link

‘Place’
Thank you!