

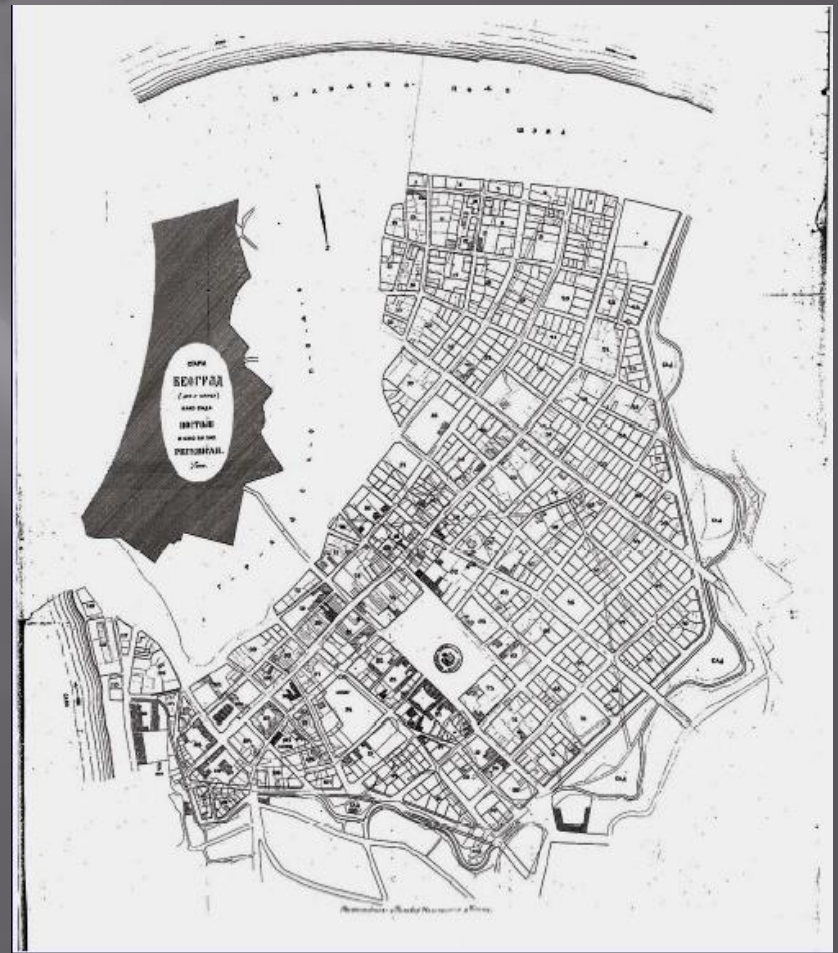
**DEJAN FILIPOVIĆ / VELIMIR ŠEĆEROV**  
**UNIVERSITY OF BELGRADE, FACULTY OF GEOGRAPHY**

**THE IMPACT OF LARGE OBJECTS ON THE  
LANDSCAPE AND VISUAL CHARACTERISTICS OF  
SPACE IN THE CITY -  
AN EXAMPLE OF THE BELGRADE CITY HIGHWAYS  
AND NEW SAVA BRIDGE IN BELGRADE**

**SPA-CE.NET, LEDNICE, 12-14.09.2016.**

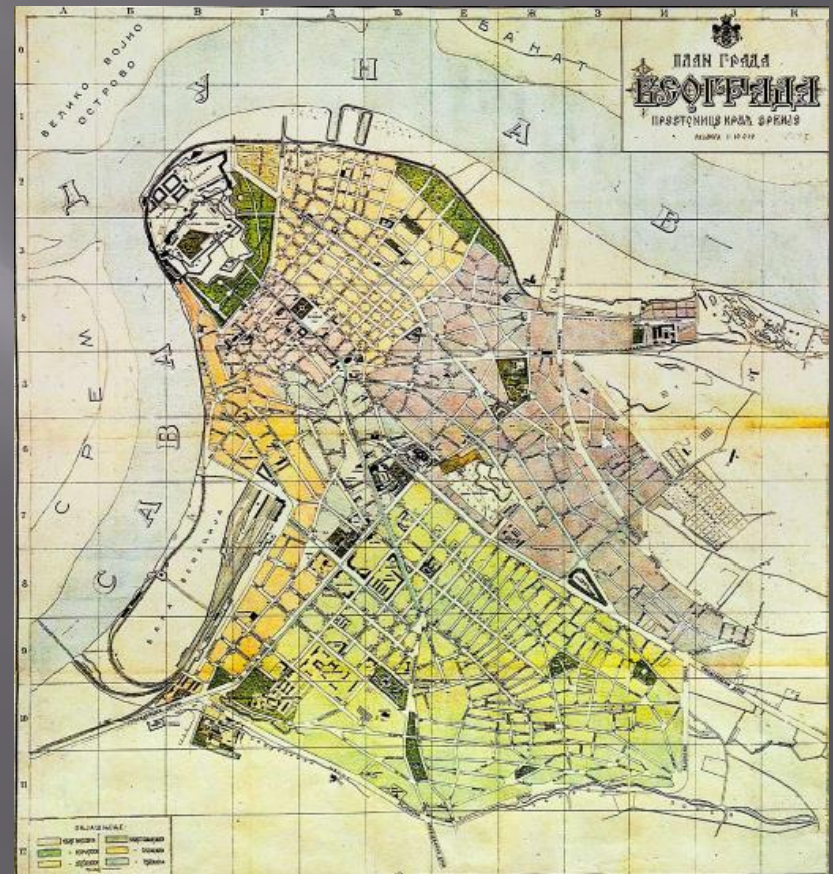
# OLD BELGRADE (PART OF THE TRENCH) AS IT IS NOW AND HOW IT SHOULD BE REGULATED. (EMILIAN JOSIMOVIĆ, 1867).

- ❑ The first Serbian educated city planner, Emilian Josimović (1821-1897)
- ❑ Plan is to regulate the old district of the Danube to the Sava River and the historic center of Belgrade
- ❑ Space outside this is not treated
- ❑ This plan set the shaft of today's urban matrix of the central zone of the city



# PLAN OF BELGRADE (JOVAN BESLIC, 1893)

# PLAN OF THE CITY OF BELGRADE CAPITAL OF THE KINGDOM OF SERBIA (VASA LAZAREVIC, 1910)



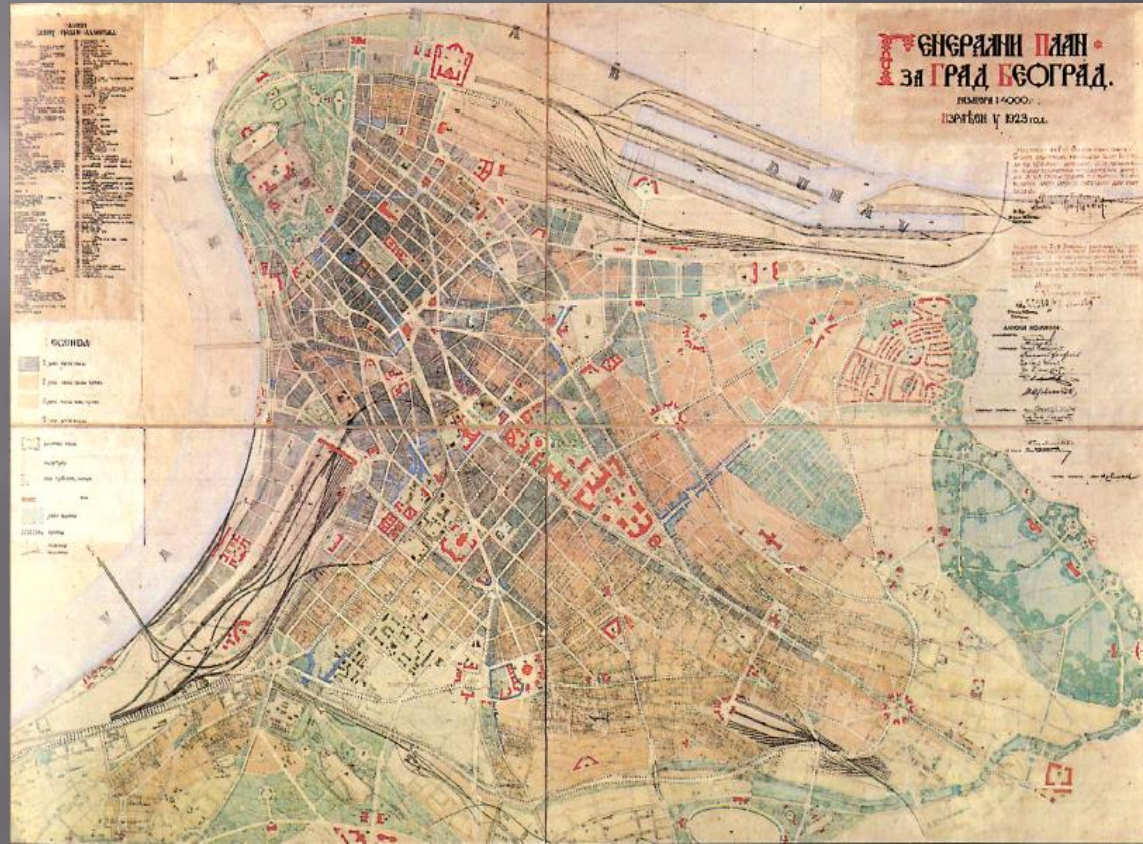
# PLAN OF THE CITY OF BELGRADE (ALBAN CHAMBON, 1912).

- ▣ Deep mark in today's spatial organization of Belgrade, especially in the central areas.
- ▣ Magnificently set concepts, proposals for the reconstruction of the town with many squares and boulevards
- ▣ Clearly separates the construction area from the rest of the territory

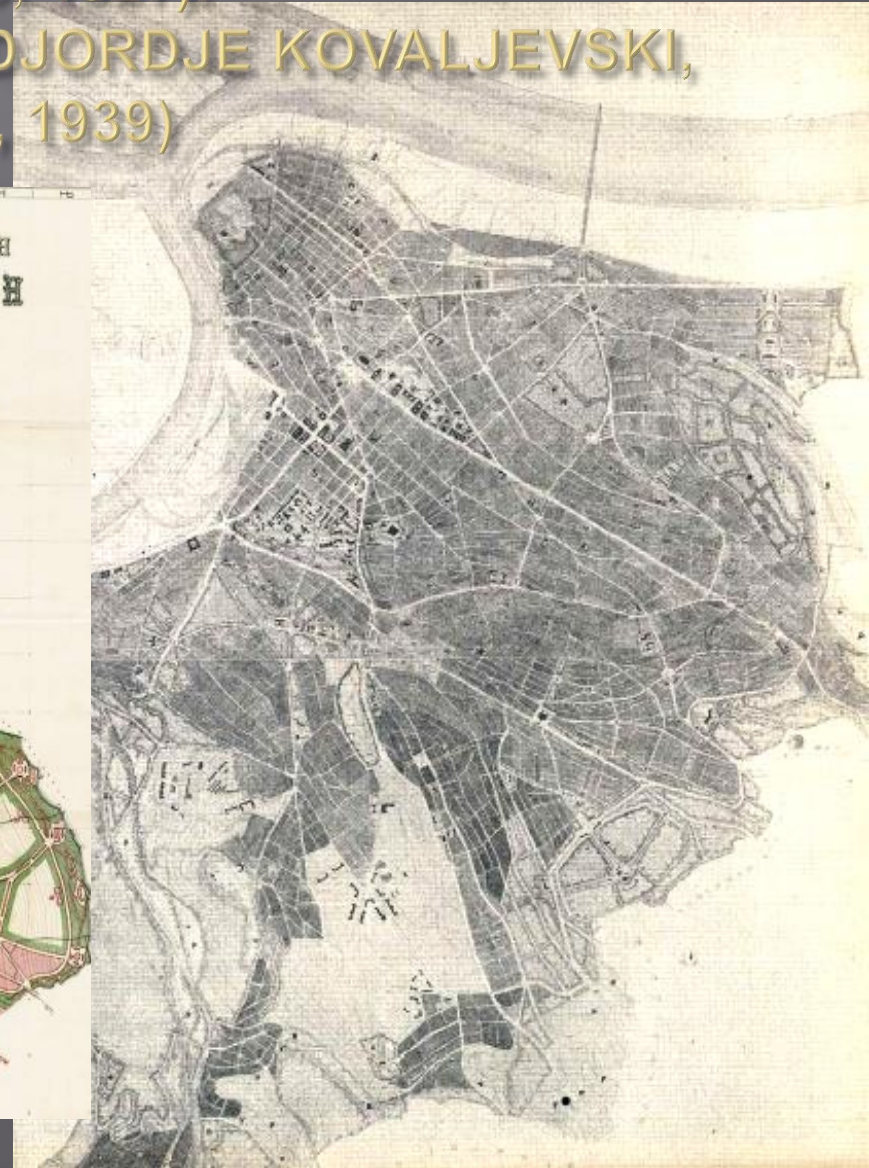


# MASTER PLAN OF BELGRADE (DJORDJE KOVALJEVSKI, 1923).

- ▣ Significant expansion of the city on Sumadija side and activated the left bank of the Sava River,
- ▣ Construction of a bridge and a special supplement that relates to future Novi Beograd



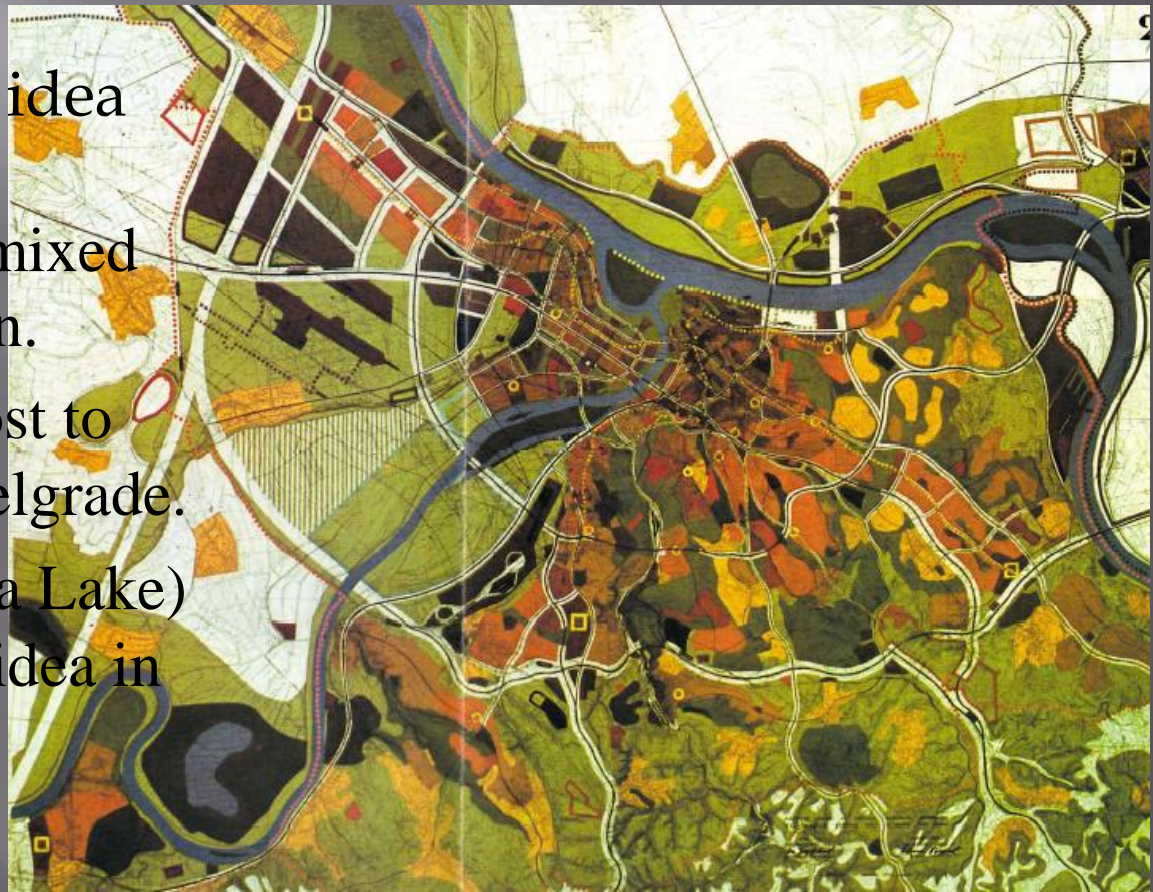
GENERAL REGULATION PLAN FOR THE CITY OF  
BELGRADE (JOVAN OBRADOVIC, 1927).  
MASTER PLAN OF BELGRADE (DJORDJE KOVALJEVSKI,  
DANICA TOMIĆ-MILOSAVLJEVIĆ, 1939)





# MASTER PLAN OF BELGRADE, 1972 (ALEKSANDAR ĐORĐEVIĆ, MILUTIN GLAVIČKI)

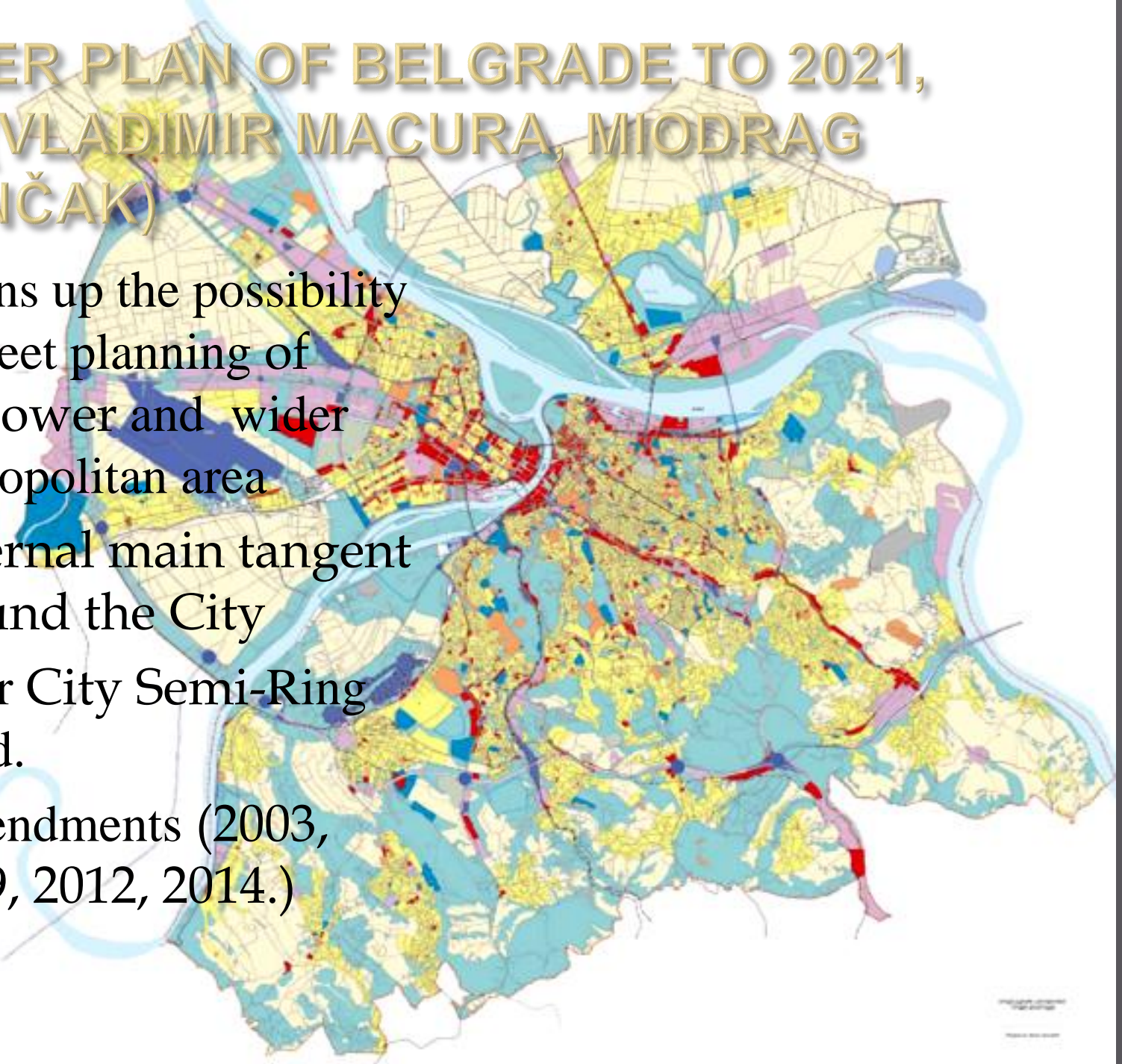
- ▣ Most famous Belgrade plans in its history
- ▣ “Sea of green” the idea was to build urban structures directly mixed with the extra-urban.
- ▣ Natural space almost to the very heart of Belgrade.
- ▣ Ada Ciganlija (Sava Lake) is regulated by the idea in 1922/23.





# MASTER PLAN OF BELGRADE TO 2021, 2003. (VLADIMIR MACURA, MIODRAG FERENČAK)

- ▣ Opens up the possibility to meet planning of narrower and wider metropolitan area
- ▣ External main tangent around the City
- ▣ Inner City Semi-Ring Road.
- ▣ Amendments (2003, 2009, 2012, 2014.)

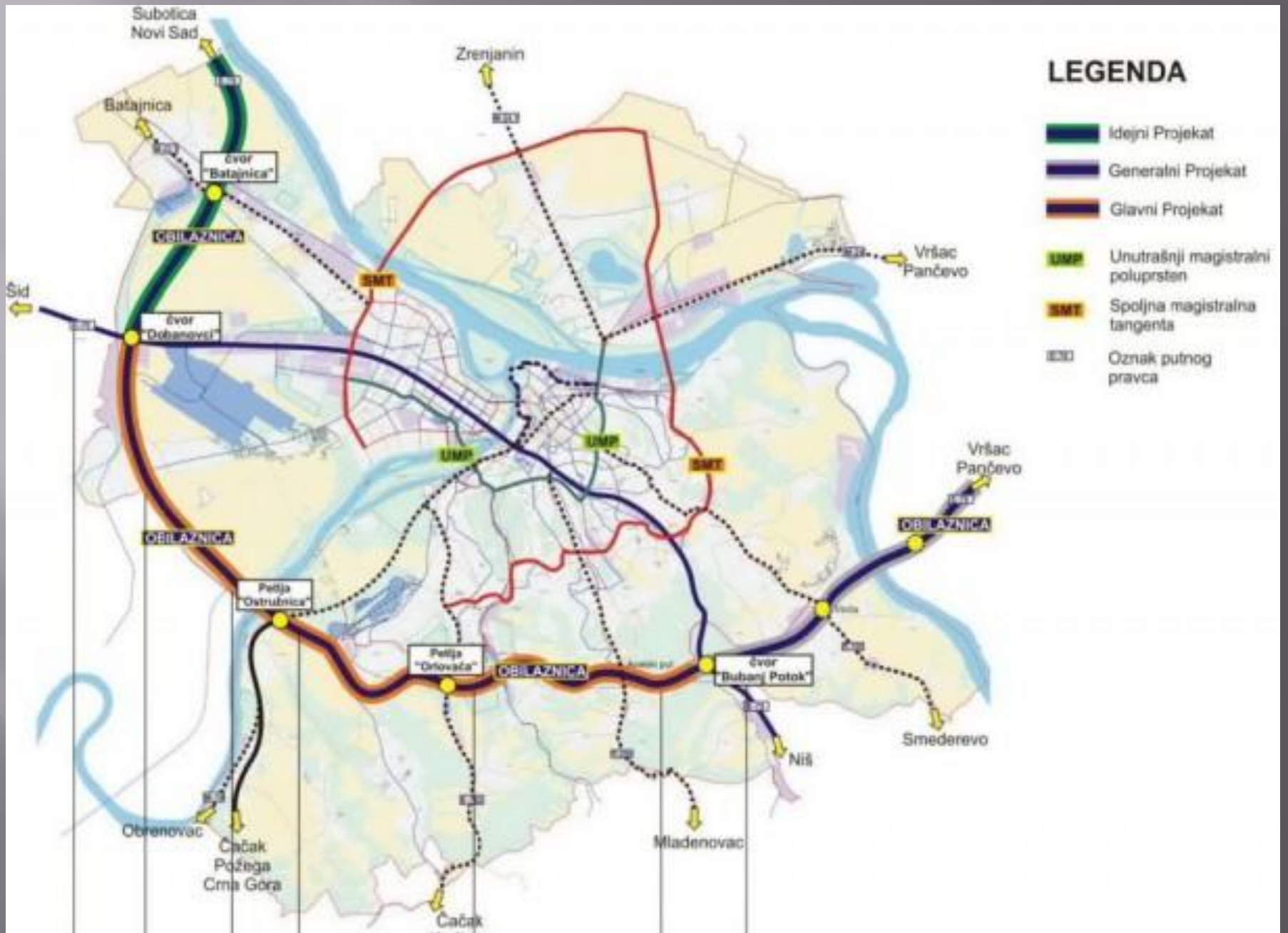


# THE BASIC TRANSPORT PROBLEMS IN BELGRADE

- ▣ mono-centric development
- ▣ inadequately and insufficiently developed network of the main corridors
- ▣ lack of modern traffic management system
- ▣ mixing of local transport with transit flows in central zones
- ▣ lack of high capacity public transport
- ▣ insufficiency of public and other use parking capacities
- ▣ absence of harmonized transport policy

# SOLUTIONS UP TO 2021

- ▣ Construction of about 132km and reconstruction of 75km of road and streets
- ▣ **The inner city (semi)-ring road (ICSRR)** around wide central area of the city
- ▣ **External main tangent around the City (EMT)**
- ▣ Construction of the **motorway bypass**



## LEGENDA

- Idejni Projekat
- Generalni Projekat
- Glavni Projekat
- Unutrašnji magistralni poluprsten
- Spoljna magistralna tangenta
- Oznak putnog pravca

# INNER CITY SEMI-RING ROAD (ICSRR)

- ▣ To reduce in the city core of Belgrade: transport work, travel time, stop time at the interchanges with traffic lights, number of the vehicle stops at interchanges with traffic lights, and fuel consumption
- ▣ Length 17.077m of which 2.895m are in tunnels, 5.457 passed over bridges and 8.725m are on surface.
- ▣ Total number of junctions are 22, of which 15 are grade separated.

# UPON COMPLETION OF THE ICSRR

- ▣ Savings of about 100,000km passenger cars
- ▣ 11 tons of fuel a day/3,250 tons less per year
- ▣ Till 2021. traffic of passenger cars increased by 35%
- ▣ Savings in fuel consumption would be about 35 tons of fuel per day, or over 10,000 tons of fuel per year.

# THE IMPACT OF ICSRR ON THE ENVIRONMENT AND THE URBAN AMBIENT

- ▣ Strategic environmental assessment (SEA) for DRP
- ▣ Impact of the ICSRR on landscape and visual characteristics
- ▣ Changes in the environment and landscape images



# THE IMPACT OF ICSRR ON THE ENVIRONMENT AND THE URBAN AMBIENT

Assessing the landscape and visual characteristics of the road in the given space, special attention is dedicated to:

- ▣ the scope of intervention in relief (changes microrelief forms)
- ▣ volume of removed vegetation,
- ▣ visual separation from the existing road environment,
- ▣ change of characteristic, rare or valuable landscape models.





# THE IMPACT OF ICSRR ON THE ENVIRONMENT AND THE URBAN AMBIENT

- ▣ In the construction phase
- ▣ The exploitation phase
- ▣ **Changes in the environment and landscape images**
- ▣ **Landscape features will mostly be changed in part of natural elements**
- ▣ **The smaller impact will be where the landscape is largely urbanized - road itself can be visually 'fit' into the urban structure**



# THE ADA BRIDGE

- ▣ Four bridges over the Sava River

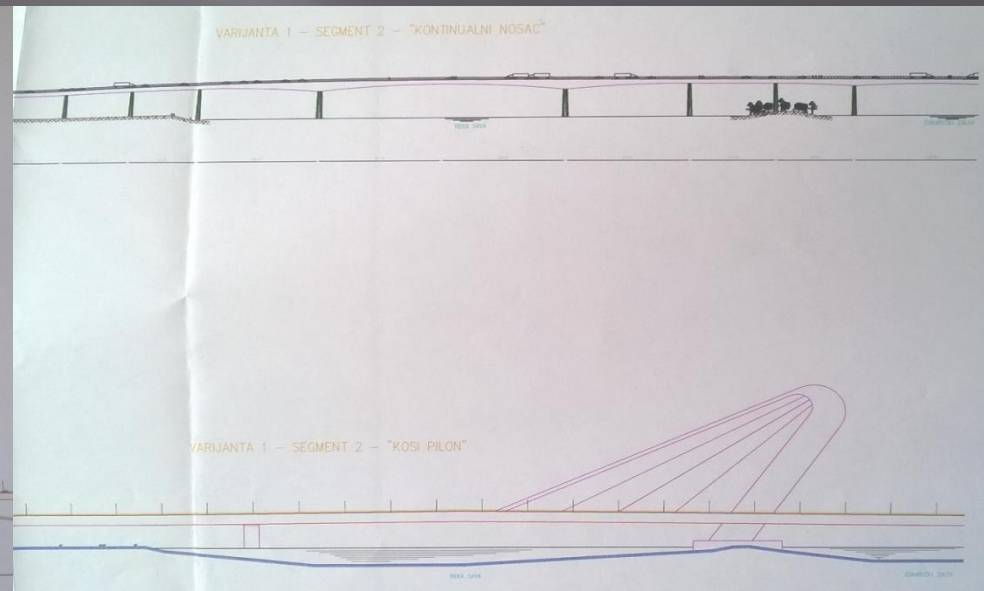
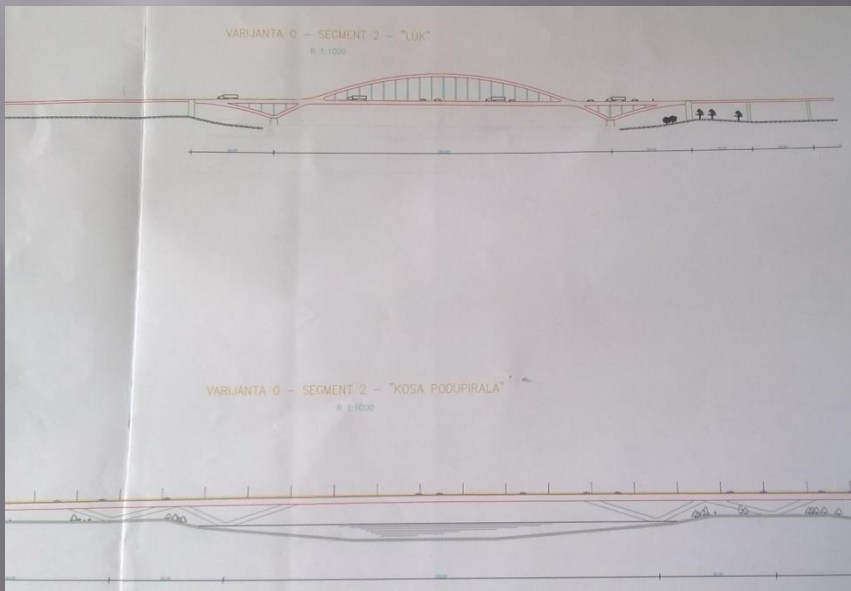
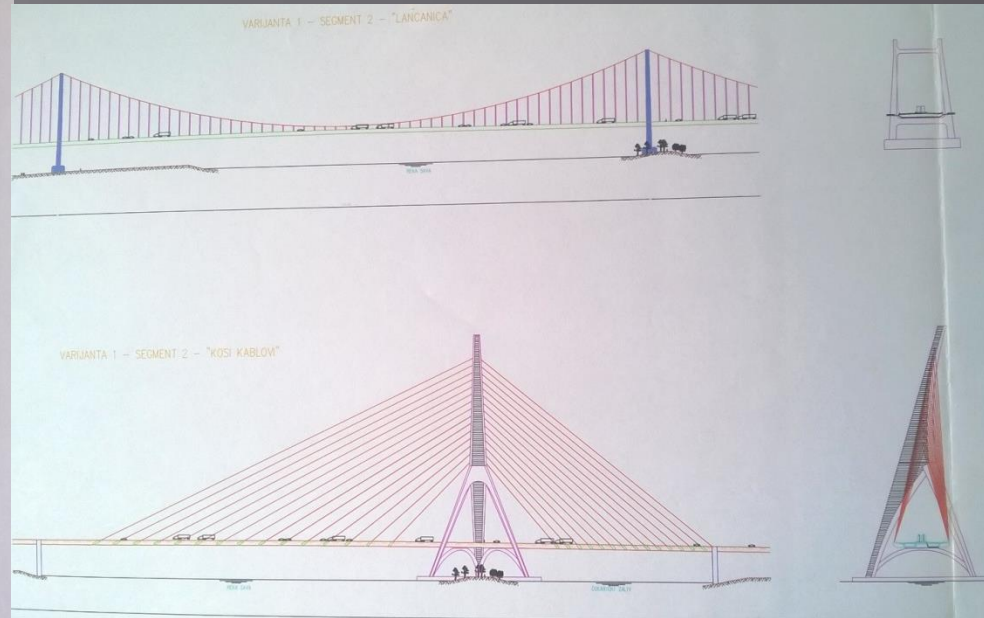
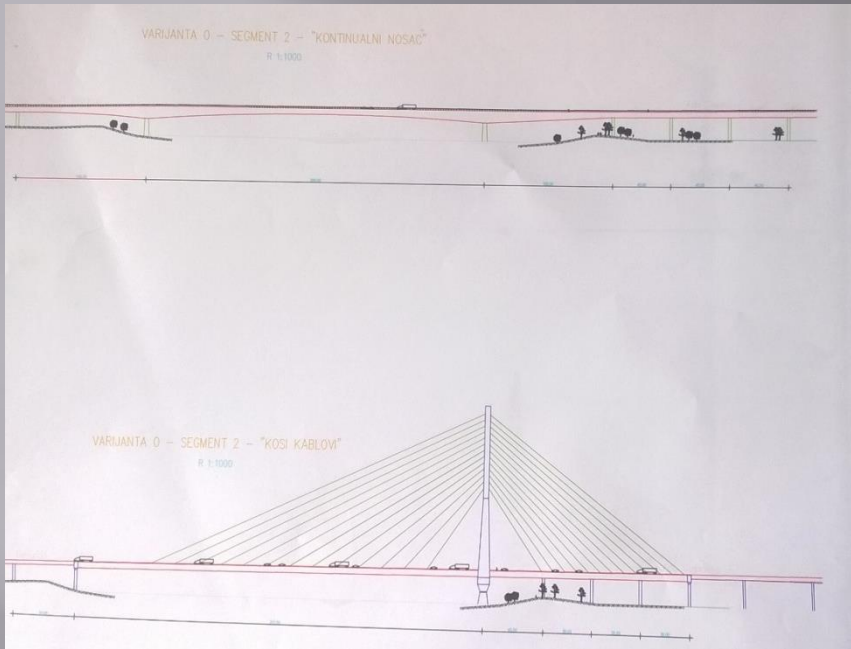


# THE ADA BRIDGE

- ▣ The bridge is 929m long, has 6 lanes of width 42,5m.
- ▣ Verification: urban-civil, ecological, economic, traffic and public/citizens.
- ▣ New urban form



# THE ADA BRIDGE - 4 VARIANTS



# THE ADA BRIDGE – 2 VARIANTS OF “PEAK BRIDGE”

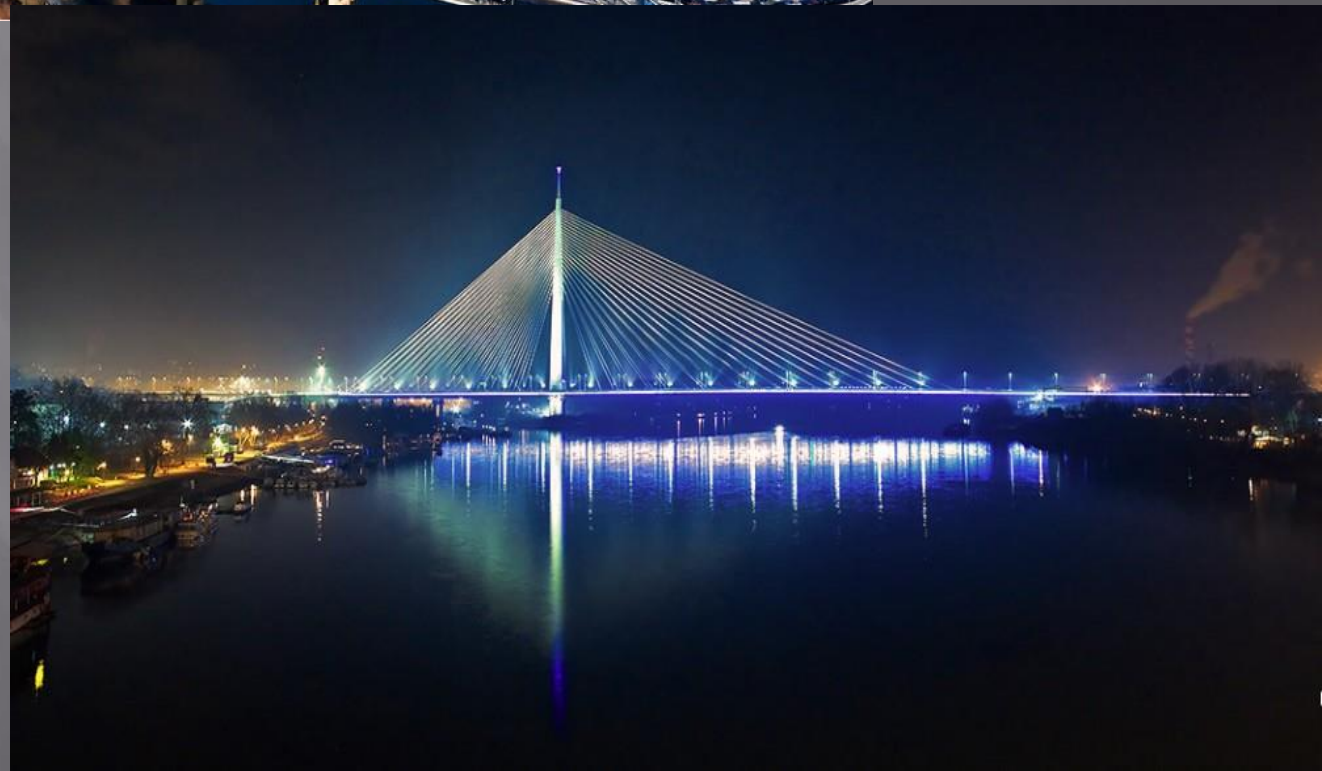


# THE “PEAK BRIDGE”



# THE ADA BRIDGE

- ▣ 200M high pylon – new orientation in space
- ▣ Pylon outs from the vegetation, bright colour, contrast dark – old and white – new
- ▣ Columns on the banks
- ▣ Key view is from right side (hilly landscape). Importance of existing vistas was reduced.
- ▣ View provided by night – paths for pedestrian are lit
- ▣ Bridge is a point that catches the eye from all parts of the city (visual influence far greater than the area of the Project)





# FUTURE BELGRADE – “BELGRADE WATHERFRONT - BELGRADE ON THE WATER”?



# THANK YOU!

University of Belgrade Faculty of Geography

[www.gef.bg.ac.rs](http://www.gef.bg.ac.rs)

[dekanat@gef.bg.ac.rs](mailto:dekanat@gef.bg.ac.rs)

Dejan Filipovic – [dejanf@eunet.rs](mailto:dejanf@eunet.rs)

Velimir Secerov – [app2000@eunet.rs](mailto:app2000@eunet.rs)