

Diploma preparatory course

Final submission 12.01.2024



Rand SUKKAR – F9U508

1st — THREE

THREE

1st – THE THEME

Urban development along the Danube River holds significant importance for several reasons:

1- Cultural and Historical Significance: : The Danube Riverfront holds historical and cultural significance for Budapest. preserving cultural heritage while promoting contemporary development. Revitalization projects can integrate historical sites, monuments, and cultural landmarks, enhancing the city's identity and sense of place.

2- Recreational and Social Spaces: They provide opportunities for leisure, recreation, and social interaction. Riverfronts serve as gathering spaces for communities, hosting events, festivals, and activities that bring people together.

3- Economic Growth: A vibrant riverfront can stimulate economic growth by fostering commercial activities, such as cafes, restaurants, shops, and entertainment venues. creates a bustling environment

4- Environmental Improvement: Efforts to clean up the river, create green spaces, and promote eco-friendly practices contribute to improving the overall environmental quality of these cities.

5- Quality of Life: Revitalizing riverfront areas can significantly enhance the quality of life for residents. Access to green spaces, cultural activities, and improved infrastructure contributes to a more livable and enjoyable urban environment.



6- Urban Regeneration and Image Enhancement: contributes to urban regeneration, transforming underutilized or neglected areas into lively and attractive spaces. Improving the riverfront's aesthetics, accessibility, and functionality can enhance the city's image and attractiveness, both locally and internationally.

7- Public Space and Community Engagement: provide residents and visitors with open areas for leisure, recreation, and social interaction. It encourages community engagement and fosters a sense of belonging among citizens.

5- Connectivity and Transportation: the role of efficient transportation networks, pedestrian-friendly pathways, and cycling routes in creating a well-connected and accessible urban environment.

River is not just a geographical feature but a central part of their identity. Therefore, urban development along the riverfront is essential for preserving their cultural heritage, fostering economic growth, improving environmental sustainability, and enhancing the overall well-being of residents and visitors.



Pedestrian-Oriented Riverfronts, vision,elements

Safety and Accessibility: Creating pedestrian-friendly riverfronts prioritizes safety and accessibility, allowing people to move freely without the hazards of vehicular traffic or Obstructions.

Public Space Design: Pedestrian-oriented riverfronts focus on designing public spaces that encourage walking, cycling, and social interaction. They include wide promenades, plazas, parks, and seating areas that invite people to linger and enjoy the surroundings.

Mixed-Use Development: Integrating residential, commercial, and cultural spaces along the riverfront fosters a lively atmosphere. This mix encourages economic activity and social engagement, creating a dynamic environment throughout the day and evening.

Green and Sustainable Design: Emphasizing green infrastructure, such as vegetation, sustainable materials, and water features, enhances the ecological value of the riverfront. It promotes a healthier environment and mitigates the urban heat island effect.

Community Engagement: Involving the community in the planning and design process ensures that the riverfront meets the needs and desires of the people. Participatory approaches foster a sense of ownership and belonging in the public spaces.



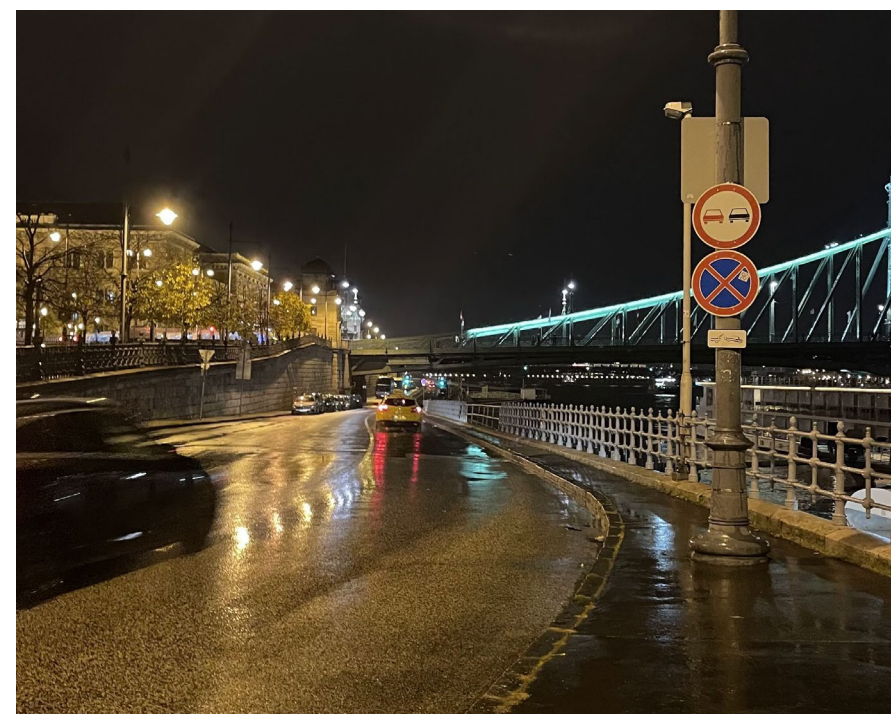
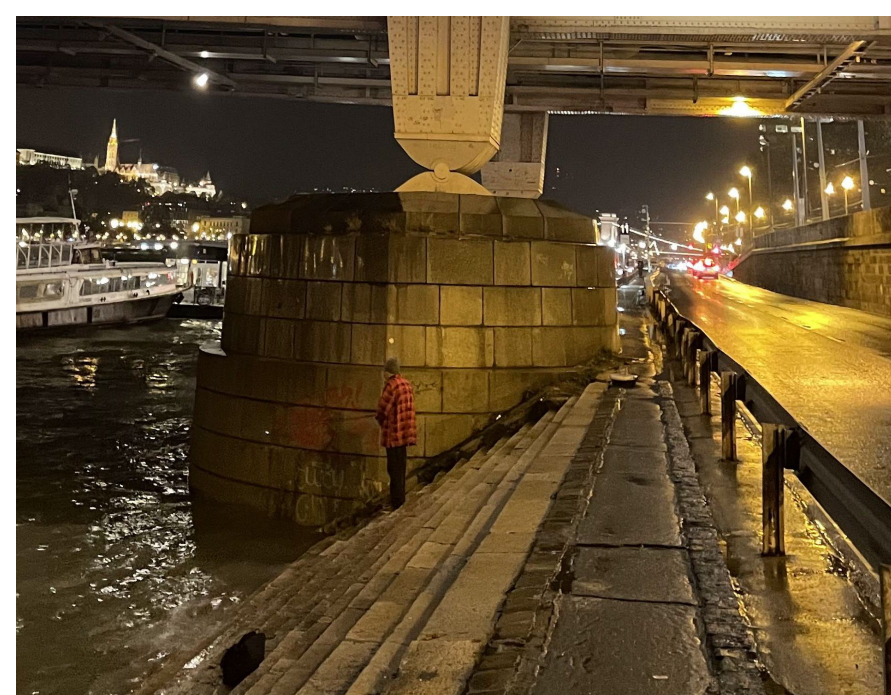
2nd - THE

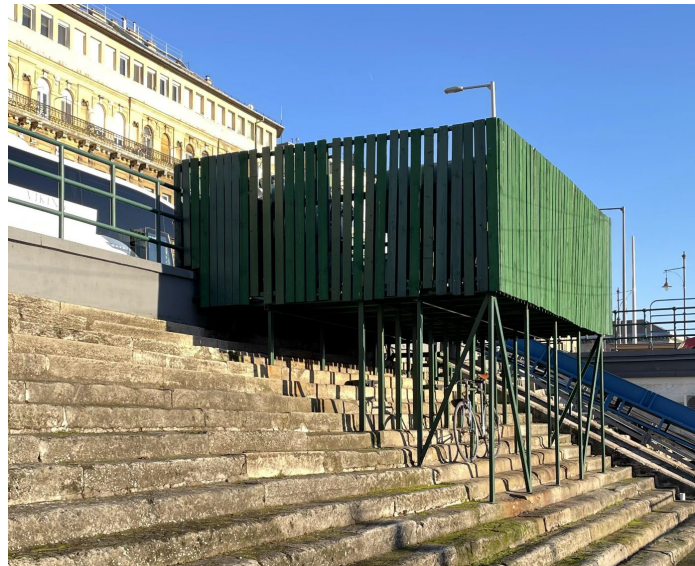
SITE



THE SECTION between Liberty Bridge and Erzsébet Bridge

General vision for the section (660*30)m ,A holistic concept ,Base grid and connection .
And a detailed part later for different departments





SITE OBSERVATION :The presence of several critical issues

1- Lack of Public Space Accessibility: When the riverfront is **dominated by private cafes and parking, and locked gates to reach the lower embankment, it restricts public access to the river and creates a segmented, unwelcoming environment for pedestrians.** It limits opportunities for people to enjoy the waterfront, reducing its inclusivity and social value.

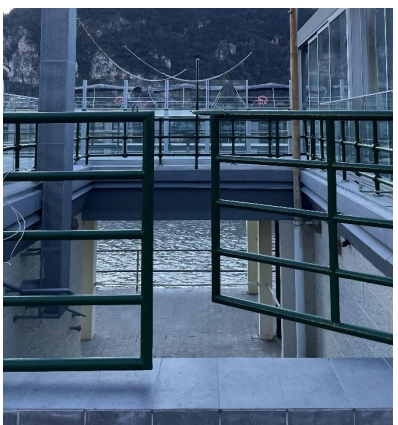
2- Excessive Vehicular Presence: Car dominance along the riverfront leads to noise, pollution, and safety concerns for pedestrians. It **discourages walking or cycling and diminishes the attractiveness of the area as a leisure or recreational space.**



SITE OBSERVATION :The presence of several critical issues

3- Loss of Waterfront Appeal: When the river is primarily occupied by cruise ships, it limits the natural appeal of the waterfront for locals and visitors. It can block views of the river, obstruct access(locked gates), and reduce the sense of connection to the water.

4- Commercialization at the Expense of Public Space: Overemphasis on private cafes and commercial interests can prioritize profit over public enjoyment and community well-being. This can result in the exclusion of certain groups or limit the space available for public use. (the people who walk are the passengers/residents of the cruises) this section especially the most not attractive or attract.



SITE OBSERVATION :The presence of several critical issues

5- Underutilization of Riverfront Potential: A car-centric approach often underutilizes the potential of the riverfront for cultural, recreational, and social purposes. It misses opportunities to create vibrant public spaces that cater to the diverse needs of the community.



Revitalizing the embankment as a pedestrian-friendly and human-oriented place is essential to address these challenges:

Promoting Accessibility: Prioritizing pedestrian spaces, widening sidewalks, and creating designated cycling lanes can make the embankment accessible to everyone, fostering inclusivity and encouraging active modes of transportation.

Balancing Commercial and Public Interests: Reimagining the riverfront with a balance between commercial establishments and open public spaces ensures that the area remains economically viable while providing ample space for community engagement and public enjoyment.

Enhancing Riverfront Experience: Creating pedestrian-friendly areas with seating, green spaces, public art, and recreational facilities can enhance the riverfront experience, making it an attractive destination for people of all ages and backgrounds.

Sustainable Design(ecological challenges): Implementing sustainable design principles, such as green infrastructure, renewable energy, and eco-friendly materials, can help mitigate environmental impacts and promote a healthier urban environment. And solve problems related to orientation and weather conditions.

In summary, a pedestrian-friendly, people-oriented approach to revitalizing the embankment along the riverfront is crucial for creating a vibrant, inclusive, and sustainable public space that serves the diverse needs of the community while reconnecting people with the natural beauty of the river.



3rd - THE

PROGRAM

A general approach was followed to reclaim the embankment for pedestrians

Manzanares River Banks MADRID,

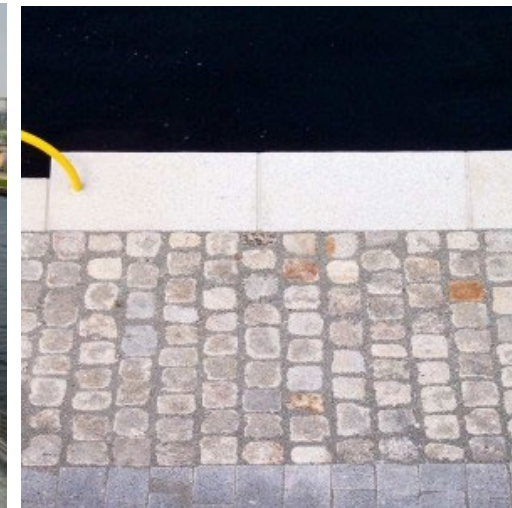
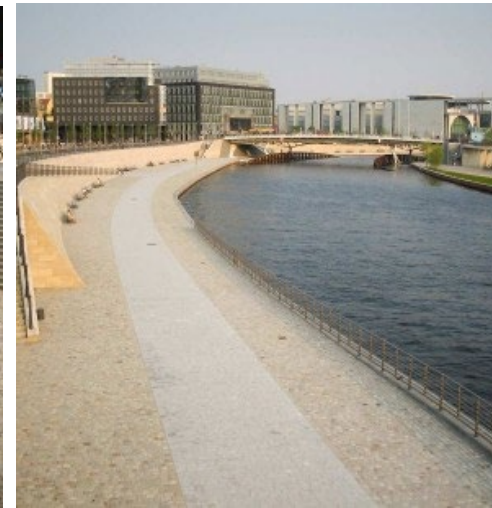
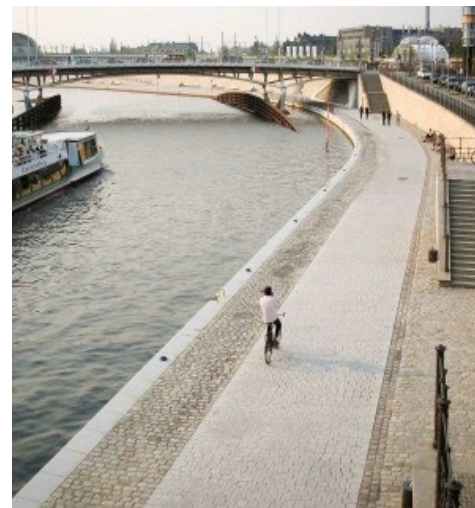
<https://www.cnu.org/what-we-do/build-great-places/manzanares-river-banks>
<https://bluehealth.tools/51-2-copy-copy-copy-2-copy-40-copy-copy/>



Riverbank Promenades Along the Spree

designed by [gruppe F | Freiraum für alle GmbH](#) / Location: [Berlin / Germany](#) / Built: [2006](#) /

<https://landezine.com/riverbank-promenades-along-the-spree-by-gruppe-f/>
<https://maps.google.com/maps?oe=utf-8&q=52.523234,%2013.373545>



separation, for pedestrian, Like the existing situation of level separation with car prevention

The Seine river banks in Paris is car free

<https://www.dw.com/en/the-seine-river-banks-in-paris-now-car-free/a-38300589>
<https://worldheritagesites.net/paris-banks-of-the-seine/>

The Banks of the Seine in Paris is the only UNESCO World Heritage site in Paris. That might seem surprising given that Paris is full of historic and architectural gems. Where once more than 40,000 cars sped through Paris every day, people are now able to stroll and families can pick-nick here where traffic has been banned along a stretch of the right bank of the Seine river. Altogether, seven kilometers are now car-free on both sides of the river bank. Along the "Rives de Seine," you can walk from the Place de la Bastille all the way to the Eiffel Tower.

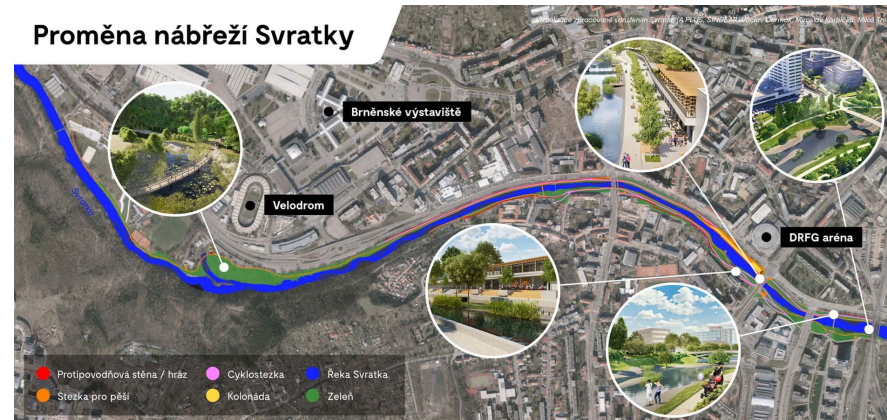


Brno(Czech Republic) begins transformation of river embankment to prevent flooding

Although the main aim of the project is to reduce flooding, it is not the only goal; that is, the city wants to create new opportunities for **walks, sports, and relaxation in the area**. As such, it will create a **recreational and leisure zone** that will be accessible for people of **all ages and abilities**.



Proměna nábřeží Svatky



<https://www.themayor.eu/en/a/view/brno-begins-transformation-of-river-embankment-to-prevent-flooding-9727>

Aménagements paysagers des quais Rive Gauche de la Garonne ,Bordeaux (France), 2009

Restoration of public spaces on the left bank of the River Garonne. <https://www.publicspace.org/works/-/project/f128-amenagements-paysagers-des-quais-rive-gauche-de-la-garonne>

IMAGE BEFORE

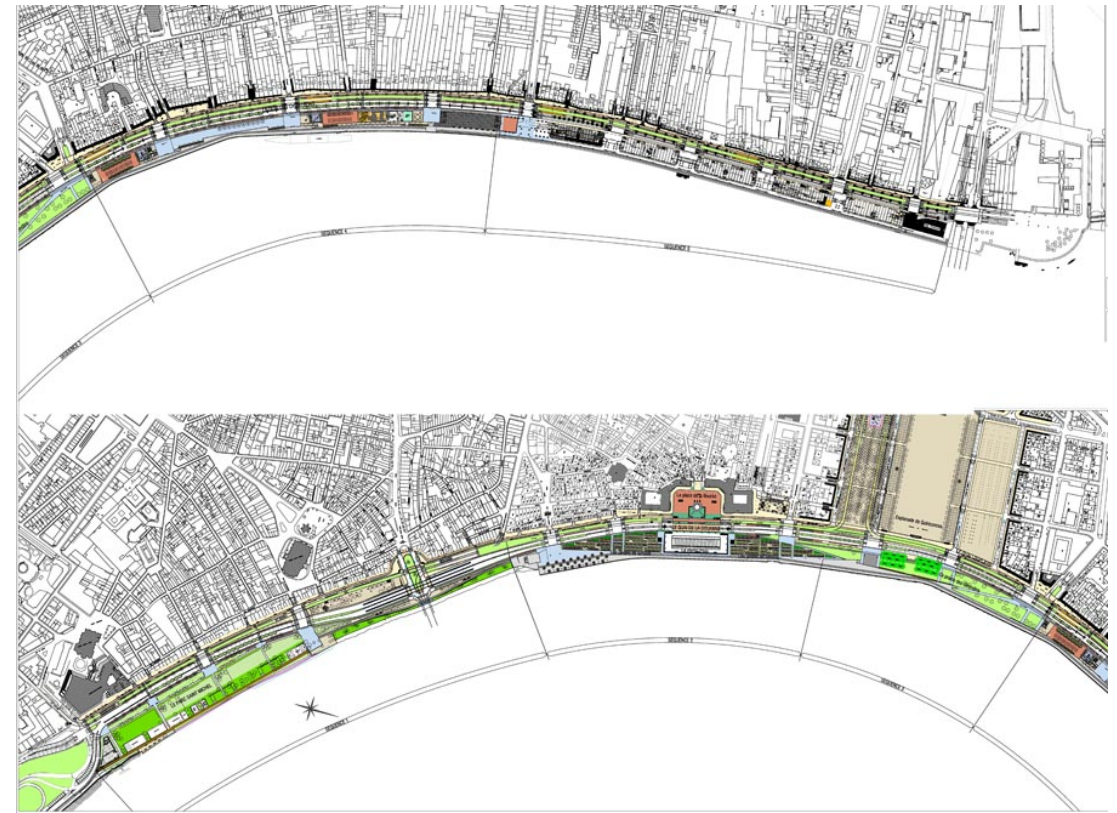


IMAGE AFTER



City planners then began to reflect on what kind of relationship Bordeaux should have with the river. Ambitious projects appeared with a view to the repossession of its banks for the citizens, for example with the construction of new bridges to complement the three existing ones or creating a network of tramlines to run along the riverfront. This public transport infrastructure, which began to operate in 2005, came hand in hand with a policy giving priority to pedestrian mobility over vehicular traffic in the city's historic centre

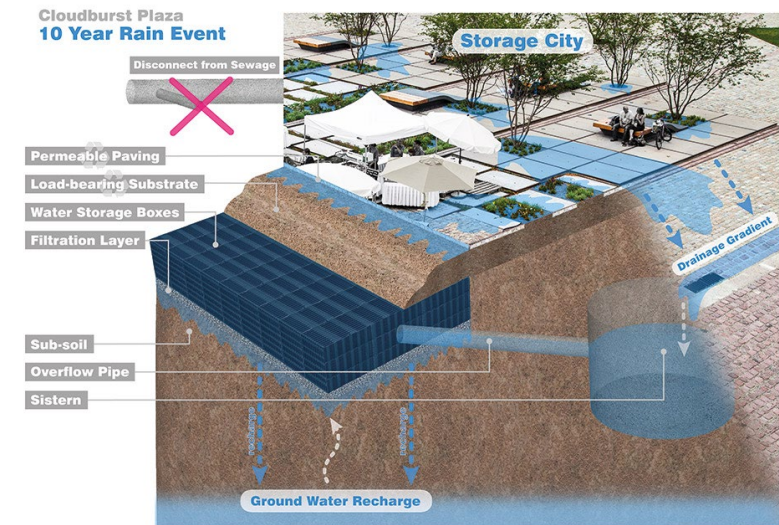
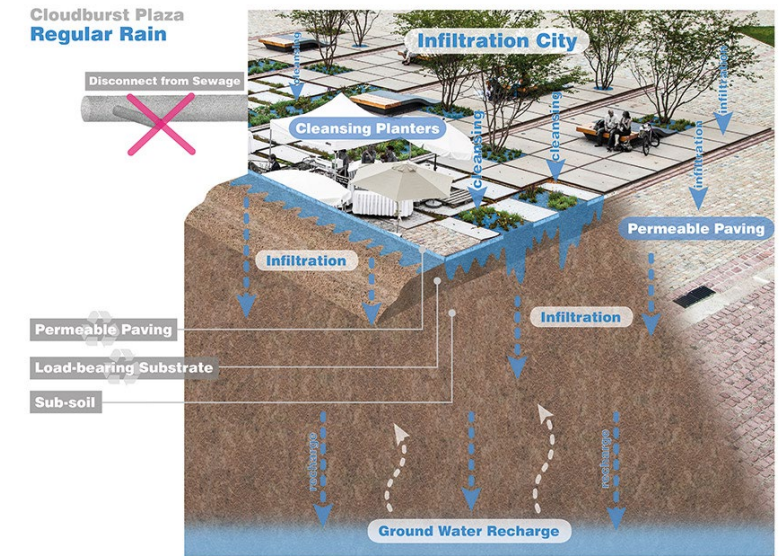
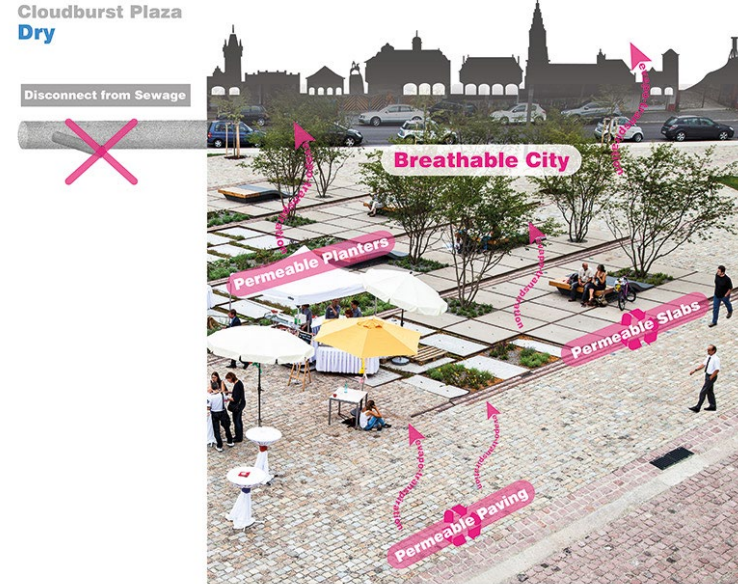
For more than four and a half kilometres along the riverfront on the strip of some eighty metres in width that separates the tramway from the Garonne, the docks have been restructured on the basis of a varied series of simple spaces including esplanades, fields and gardens offering versatile place for many different activities. In the longitudinal sense, they are divided into equitably shared and functional routes offering different options of mobility for pedestrians, cyclists, private vehicles, public transport and merchandise deliveries. There are also green strips entering the space



About Flood : **Project: Zollhallen Plaza**

Designers: Atelier Dreiseitl / Location: Freiburg, Germany / Client: Aurelis / City of Freiburg / Completion: 2011

It is undeniable that the relationship between water and our urban areas needs to be given a higher priority to provide integrated solutions for flood risk management, sustainable water use and supply, and the improvement of water quality in our treasured watercourses. Planners and designers should take more account of what we call “**water-sensitive urban design**”. But what exactly is water-sensitive urban design? A water-sensitive urban design is a land planning and engineering design approach. It takes the urban water cycle, including storm water, groundwater and wastewater management and water supply into urban design. Mitigating on environmental degradation and improving aesthetic and recreational appeal.



The most related example in terms of context ,vision ,innovation approach

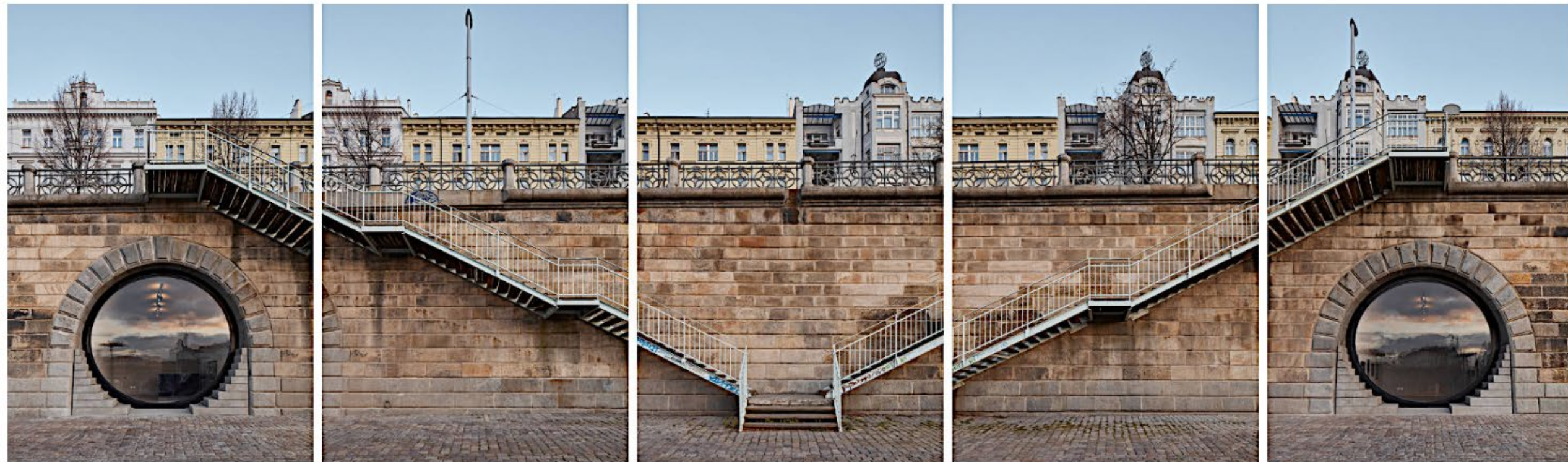
PRAGUE EYES – riverfront revitalisation, Prague

The embankment area was being used for car parking, with the vaults containing storage units. achieved cultural and social revival, and subsequently, architectural rehabilitation. The completed first phase is Prague\'s largest post-revolutionary investment in public space, the first with such sociocultural impact. It focused on the reconstruction of 20 vaults in the riverside wall (originally storage areas). The vaults allow maximum contact with the river. The vaults will serve as cafes, workshops, galleries and public toilets. There are 6 vaults accessible by elliptical pivoting windows made of organic glass that are probably the largest in the world.

There are three main types of vaults which are each used for different functions: large glass-fronted vaults contain shops and galleries, vaults with steel doors house cafes and workshops, and other spaces are used for public toilets.

<https://bigsee.eu/prague-eyes-riverfront-revitalisation-prague/>
<https://www.dezeen.com/2021/10/07/petr-janda-revitalisation-prague-vltava-riverfront-czech-republic/>

- **Architects:** [petrjanda/brainwork](#)
- **Project:** The rebirth of the Prague's riverfront
- **Location:** Rašín, Hořejší and Dvořák Embankments, Prague
- **Client:** The City of Prague
- **Floating Pool:** SDAR
- **Project Year:** 2009-2019
- **Completion Year:** 2019/ phase 1



The most related example in terms of context ,vision ,innovation approach

<https://www.doorhandles-mt.com/architecture/stories/prazske-naplavky/>

PRAGUE EYES – riverfront revitalisation, Prague

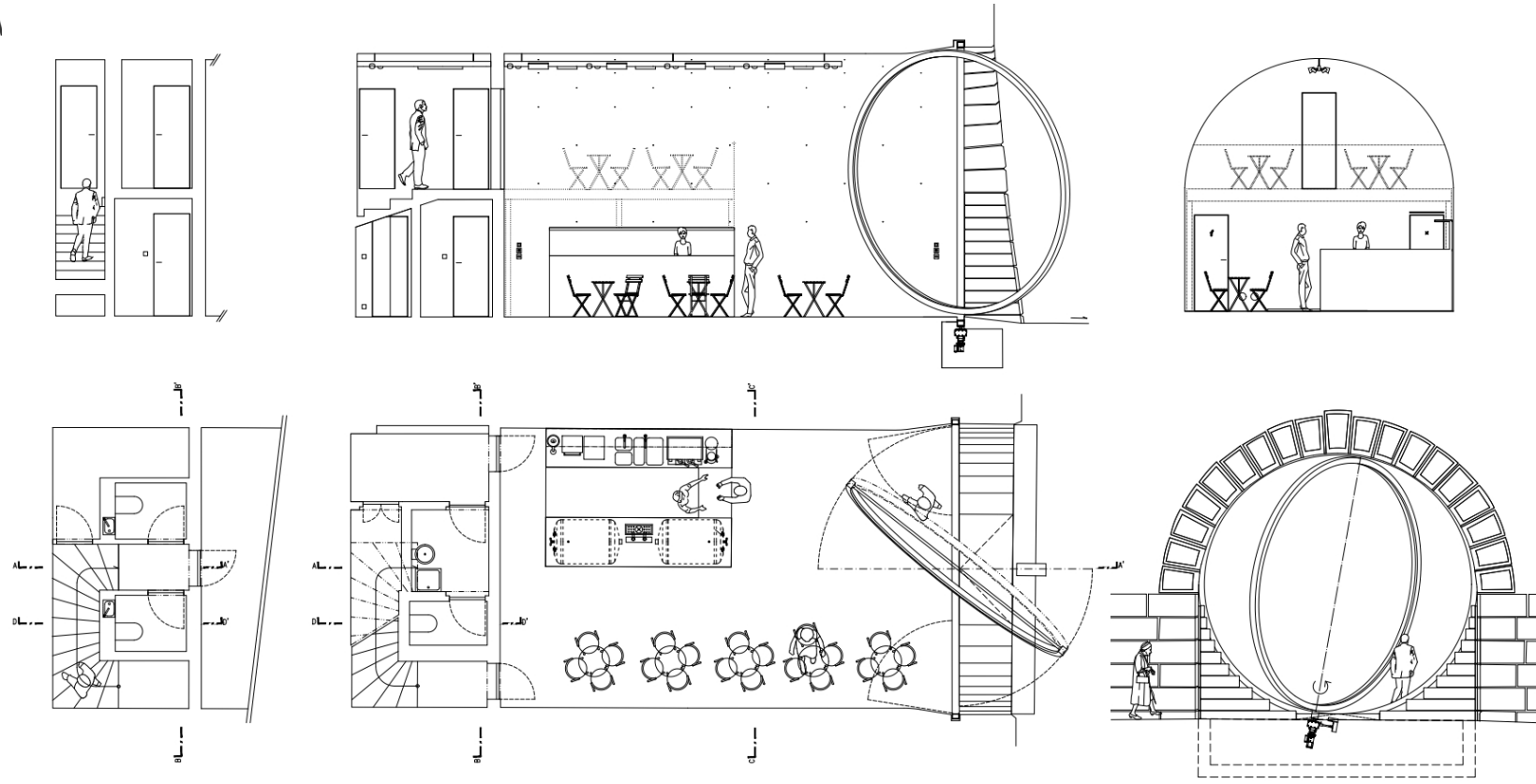
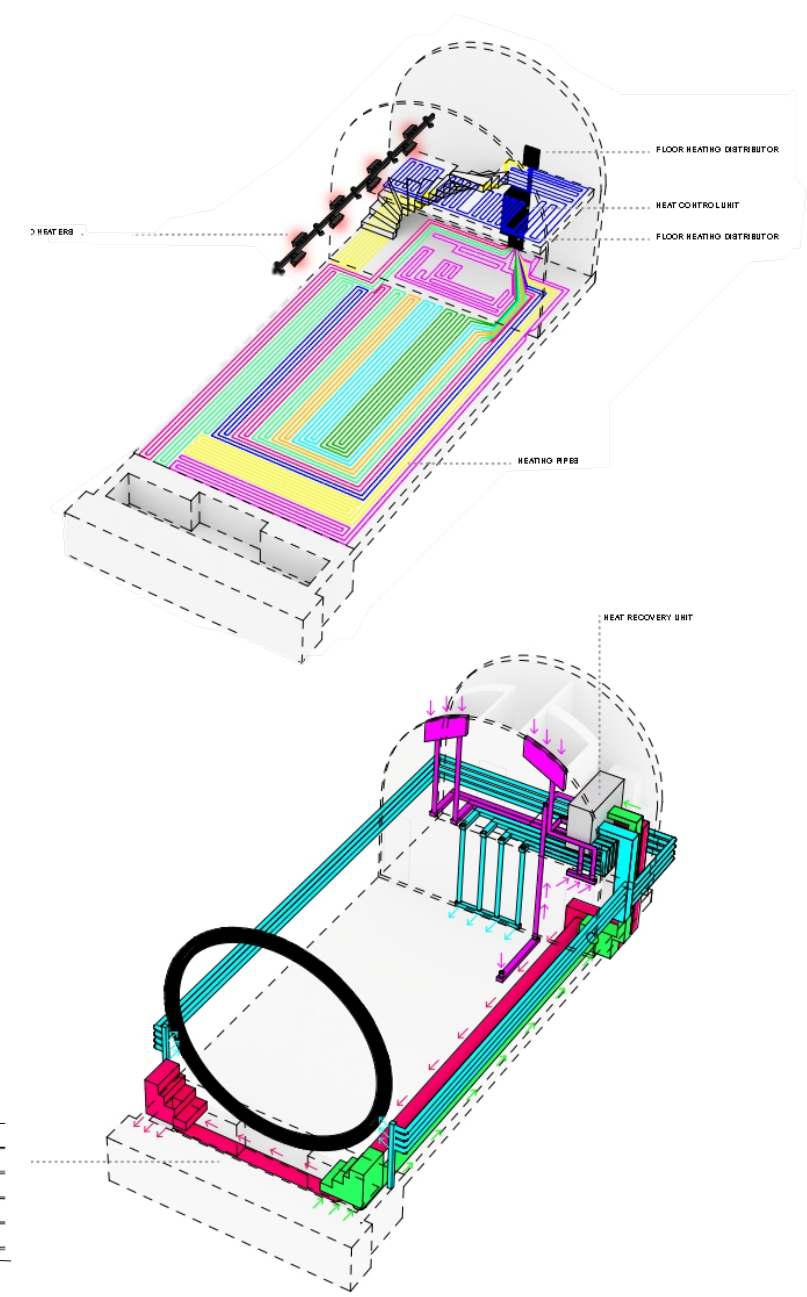
The 14 vaults on the Hořejší Embankment have steel sculptural entrances. The surfaces are made of sand-blasted concrete with cast floors and individual elements of titanium-coated black metal. Air-conditioning with heat recovery and infrared heaters allow for year-round operation. The vaults are wheelchair accessible, with mobile flood protection barriers.



The most related example in terms of context ,vision ,innovation approach

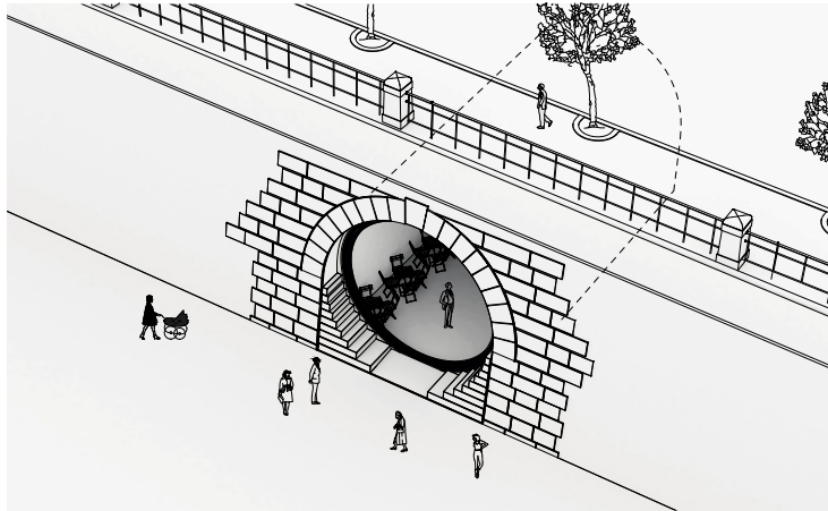
PRAGUE EYES – riverfront revitalisation, Prague

The inserted parts of bars and partitions are clad in black titanium-coated stainless-steel plate, complementing through reflection the spatial geometry of the vaults, and through the constant volatile movement of the reflection, bringing the fluid incomprehensibility of the river inside. The surfaces are made of geopolymer alternative to concrete (reducing emissions when produced) used in various forms - sandblasted walls and ceilings and cast floors and staircases. A combination of floor heating with air-conditioning with heat recovery and infrared heaters allows year-round operation, they are almost invisible to visitors. The vaults are wheelchair accessible,

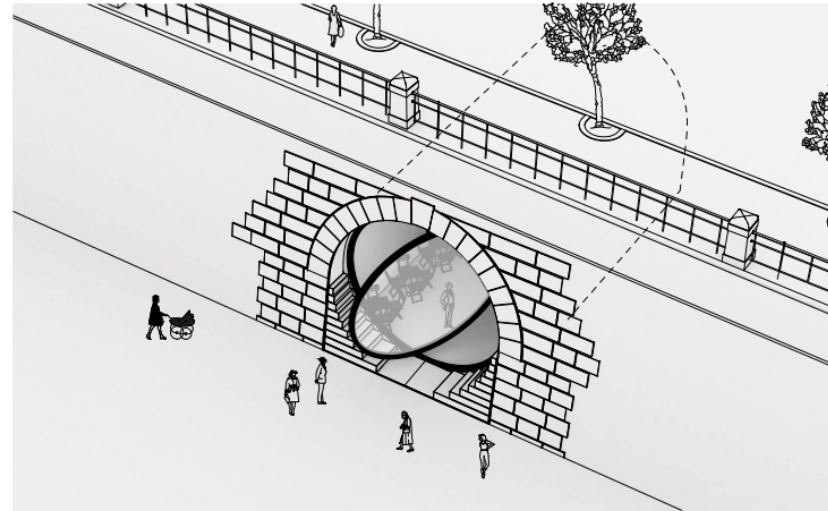


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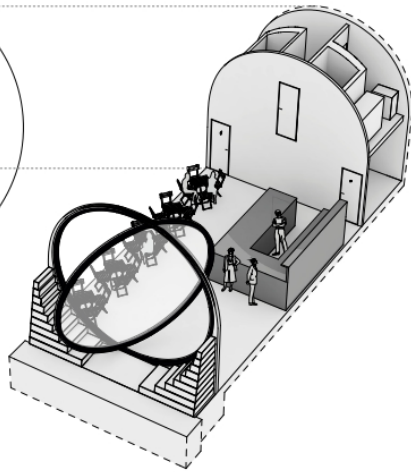
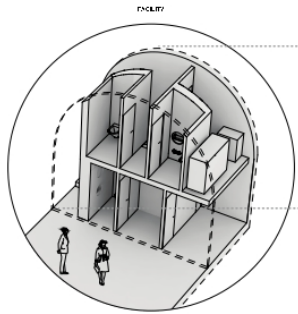
PRAGUE EYES – riverfront revitalisation, Prague



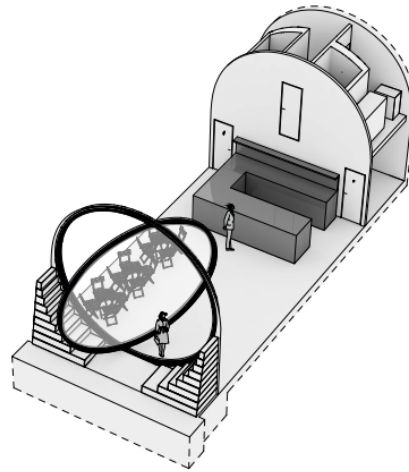
CLOSED VIEW DIAGRAM
PEY/2014/3 / M/2010/07/1



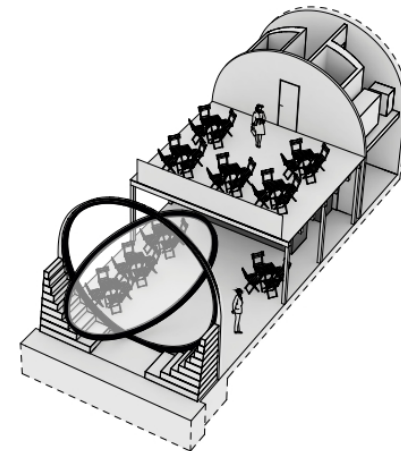
OPEN VIEW DIAGRAM
PEY/2014/3 / M/2010/07/1



3D POSITION DIAGRAM
PEY/2014/3 / M/2010/07/1



3D POSITION DIAGRAM
PEY/2014/3 / M/2010/07/1



3D POSITION
PEY/2014/3 / M/2010/07/1

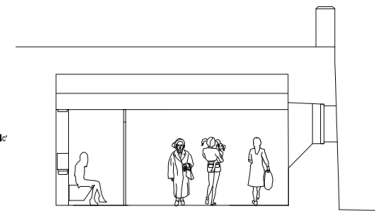
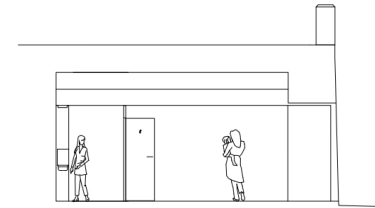
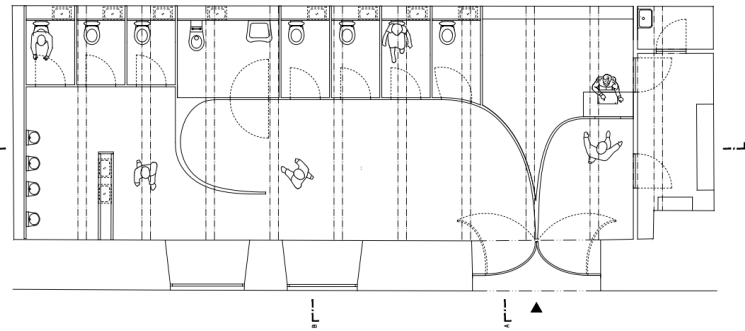
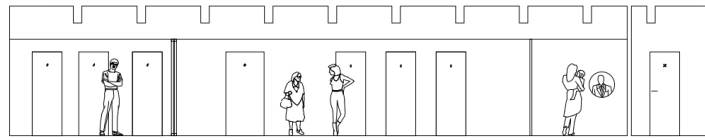
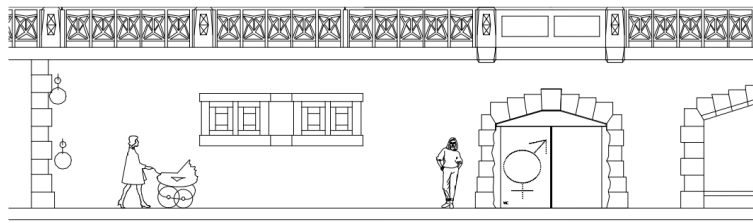


The most related example in terms of context ,vision ,innovation approach

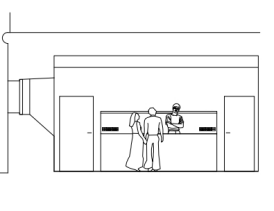
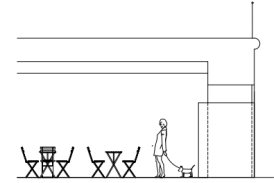
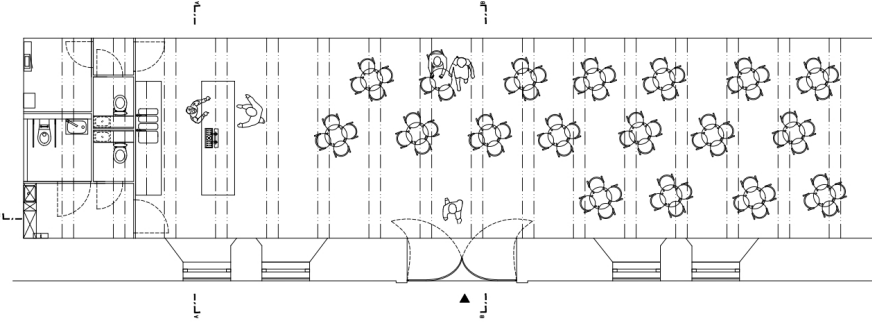
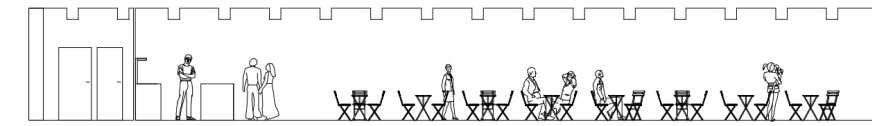
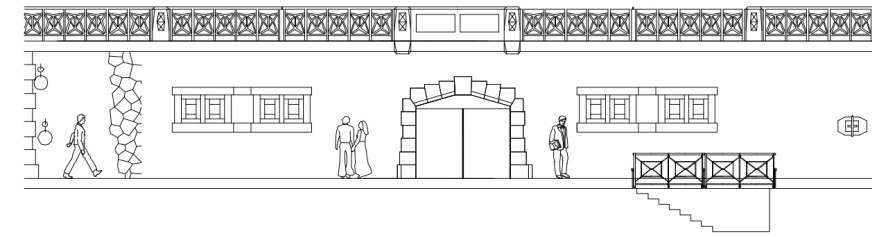
<https://www.miesarch.com/work/4858>

<https://life-globe.com/en/embankments-prague-masarykovo-and-rasinoval>

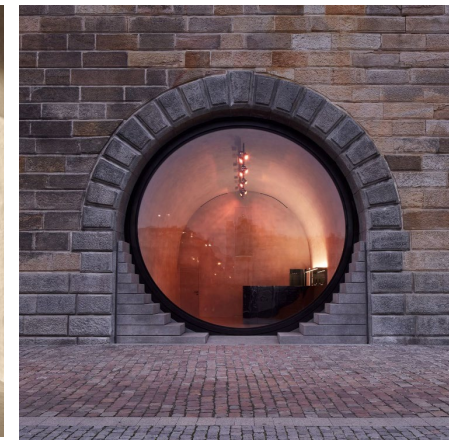
PRAGUE EYES – riverfront revitalisation, Prague



PUBLIC TOILETS
Petrínová / Rámcová

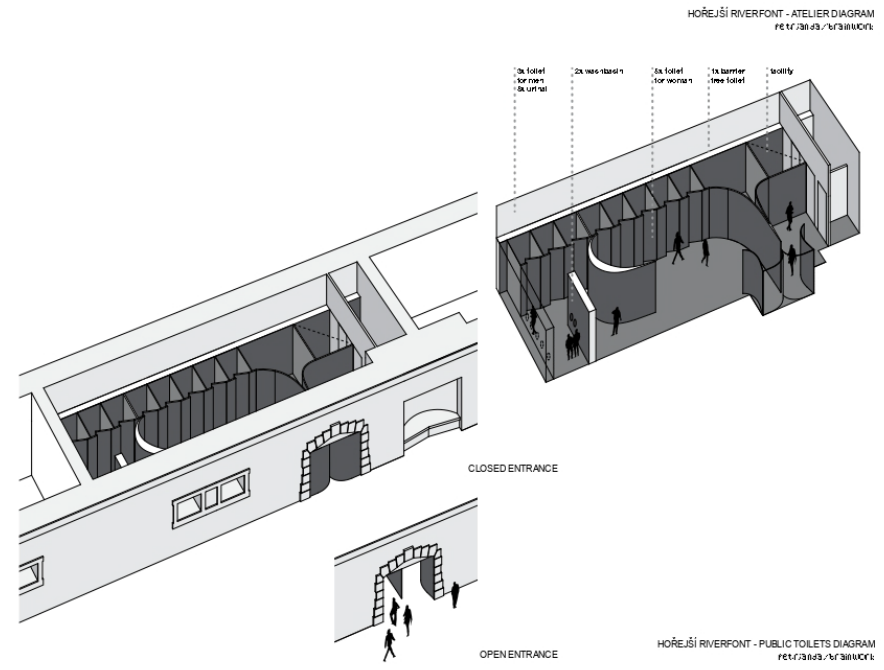
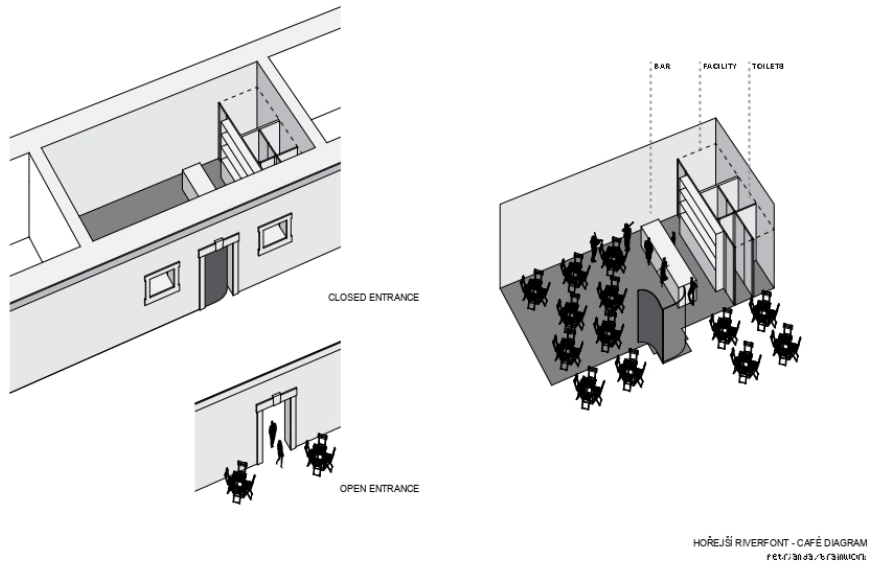
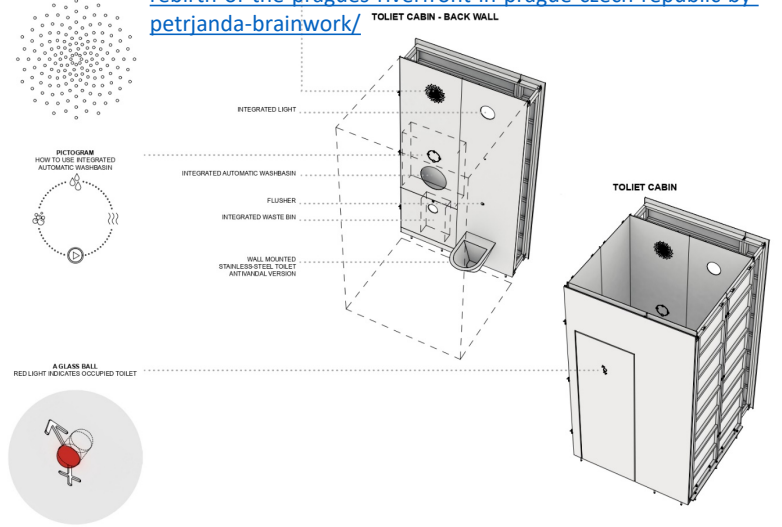
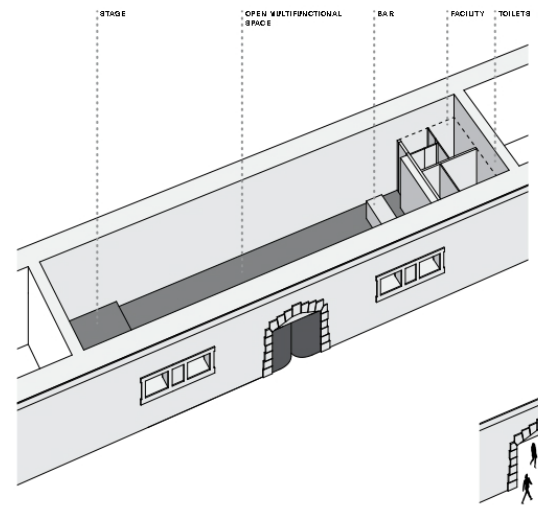
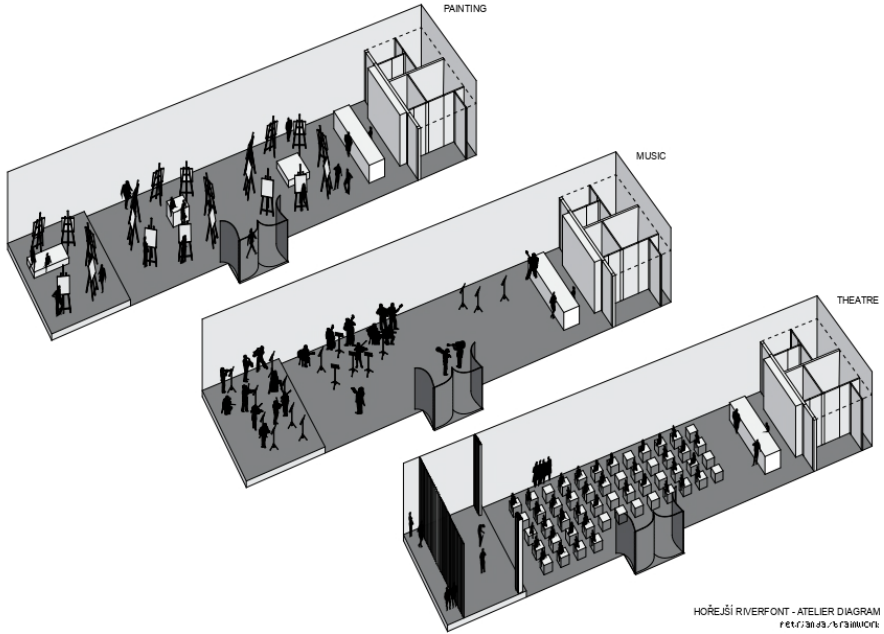


ATELIER / CAFE
Petrínová / Rámcová



The most related example in terms of context ,vision ,innovation approach
PRAGUE EYES – riverfront revitalisation, Prague

<https://www.miesarch.com/work/4858>
<https://www.10.aecafe.com/blogs/arch-showcase/2019/07/31/the-rebirth-of-the-pragues-riverfront-in-prague-czech-republic-by-petrianda-brainwork/>



The almost deserted riverfront area, which was also used as a car park after the floods of 2002, began to emerge as a cultural and social area and one of the most popular public spaces in Prague. With the arrival of other activities (the bike asylum Bajkazyš, (A)VOID Gallery, farmers' market, the Forman brothers' theatre ship Tajemství), it has become established as an authentic cultural centre, interconnecting time spent along the river with exhibitions, concerts and theatre performances.

The most related example in terms of context ,vision ,innovation approach

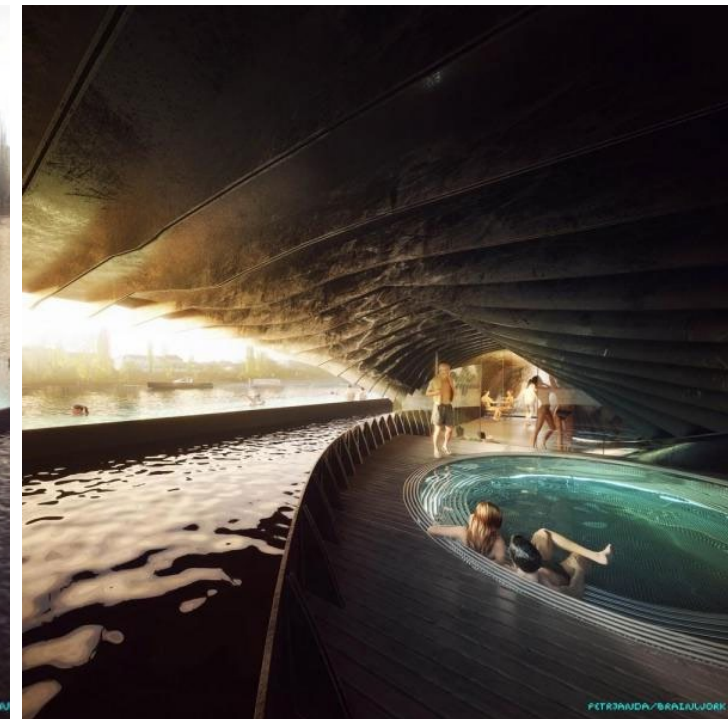
<https://www10.aecafe.com/blogs/arch-showcase/2019/07/31/the-rebirth-of-the-pragues-riverfront-in-prague-czech-republic-by-petrjanda-brainwork/>

PRAGUE EYES – riverfront revitalisation, Prague

Floating pool

The aim of the project is to restore the tradition of river baths through a modern badeschiff-type floating pool with complementary facilities complying with contemporary requirements. Floating public baths combine general social and cultural functions with recreational and sports functions. The location of the baths echoes the historical placement of swimming pools along the Vltava embankment, with their specific connection to the Rašín embankment. The project is based on the morphology of the embankment and defines the position of the floating facility among the existing bays along the high waterfront wall.

The baths are composed of two architecturally different parts, creating a coherent whole. The swimming pool belongs to the river “realm”, while the floating facility follows the character of the high waterfront wall and the historical appearance of Prague’s traditional floating river baths. This tension is complemented by a third layer, concealed in the below-deck interior: a structural system of steel ribs, the traditional structural component of all boats on the Vltava river



Terminal for cruise boats : It emphasizes ship minimalism, reflecting this in both the structure and design of the terminal and in its visual logic.

What about Budapest

Danube Embankment in Central Budapest Becomes “Leisure Terrace” /

<https://xpatloop.com/channels/2023/07/danube-embankment-in-budapest-to-become-leisure-terrace.html>



“waterfront community spaces” for the summertime.

Concerning the preparations, the mayor said dozens of plants, benches, and tables have been placed in the area, as well as misting stations, barbecue facilities, and sandboxes.

https://pestbuda.hu/en/cikk/20210412_the_longest_monuments_in_budapest_the_history_of_the_embankments



Until the middle of the 19th century, anyone could walk down to the undeveloped, muddy banks of the Danube, but during a flood, nothing stood in the way of the water. The 12-kilometre-long embankments along Budapest's Danube Banks have become an essential part of the cityscape and protect the capital from floods

What about Budapest

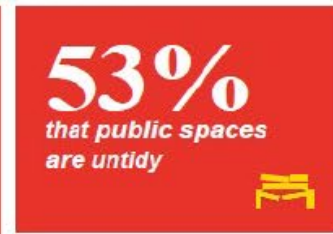
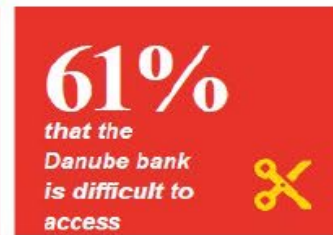
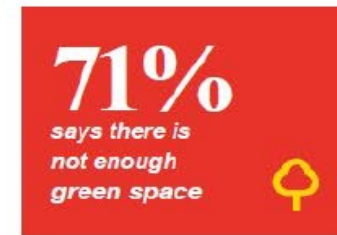
Municipality vision

NOW : UNTIDY COASTLINE, LITTLE GREEN SPACE, DIFFICULT ACCESS TO THE WATERFRONT, HEAVY CAR TRAFFIC: INSTEAD OF A WATERFRONT PROMENADE, WE NOW USE THE LOWER QUAYS AS A PANORAMIC MOTORWAY

The biggest problem with the current use of the lower quay is the complete lack of green spaces and leisure facilities, and the priority given to unconditional car traffic. This not only makes it impossible to exploit the opportunities offered by the waterfront, but also to promote sightseeing and tourism.

LET'S MAKE THE DANUBE THE MAIN STREET OF BUDA-PEST AGAIN, OPEN THE WATERFRONT TO THE PEOPLE OF BUDAPEST, CONNECT THE WATERFRONT TO THE RIVER AND CREATE THE MOST PANORAMIC PROMENADE IN BUDAPEST.

The Pest quayside harbours untapped potential, such as the viaduct underneath the tramway 2 track structure, which used to be a warehouse and restaurant, but now has the potential to be revived as a community and hospitality area. The quayside will be renovated in line with its World Heritage value, which it was awarded decades ago, joining the chain of Chain Bridge and Castle Garden Bazaar, which have been renovated in recent years with existing Community funds.



What about Budapest Municipality vision

THE FOCUS OF THE REGENERATION OF THE QUAY IS ON CREATING PEDESTRIAN SPACES, THE DEVELOPMENT OF A WATERFRONT PROMENADE AND THE CREATION OF ACCOMPANYING TREE-LINED AND GREEN SPACES. THE MAIN OBJECTIVE OF THE DEVELOPMENT PROGRAMME IS TO CREATE THE MOST BEAUTIFUL CREATE SPACES

For Program

For the lower quay in Pest to become a true pedestrian space, three things are needed: the development of links from the upper quay to the lower quay; the construction of a longitudinal promenade; and to provide water access for stepped seawalls and possible new floating structures. Safe and convenient access to the promenades will be ensured by more pedestrian crossings and new access ramps. Information points, drinking fountains, toilets and signposts will be installed to serve walkers. Multifunctional, integrated street furniture should be used to reduce congestion.

Respect for the built heritage is of paramount importance in the downtown Danube embankment area: public spaces should be designed in a restrained way, in keeping with the protected embankment, without competing with it. The aim is to regenerate the quay in an elegant way, in keeping with the urban environment

New green spaces could also be created in the immediate vicinity of the renovated Chain Bridge. And in the adjacent Széchenyi Square, it is precisely the modification of the traffic regime of the bridge and the quay that will allow for the creation of green space and a promenade where pedestrians have already been trampling their way. The Jane Haining quay, which handles considerable cross pedestrian traffic due to the docks, will have groups of trees planted along the waterfront, recreating the atmosphere of the quayside. A new tree line could also be added to the promenade on the Belgrade Quay.

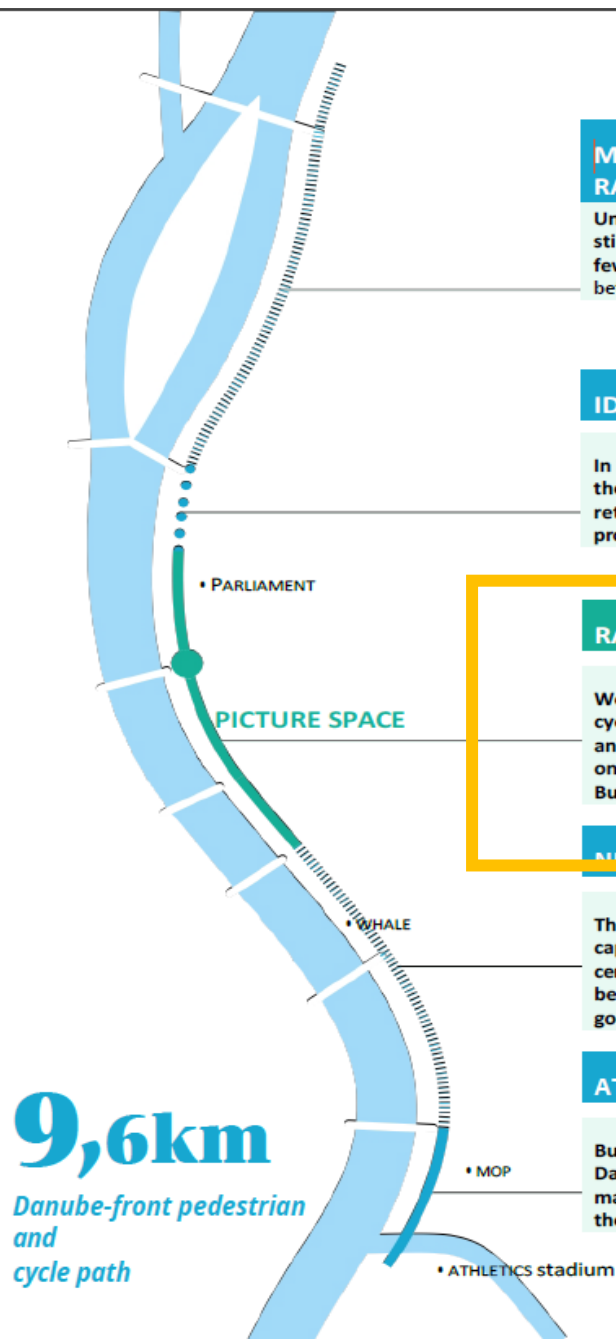


The hidden treasure of the quay: the viaduct

Few people know, but underneath the track of tram number 2 there is a unique row of rooms between the Chain Bridge and Elisabeth Bridge. Although some of the former viaduct rooms have now been filled in, the sections that remain intact still preserve a lost slice of the quayside's former atmosphere. The viaduct used to house restaurants and warehouses. Today, most of them are under lock and key, but in recent years they have proved their worth as community and hospitality venues. The weakness of the premises, however, is that they open almost directly onto the quayside roadway, so they can only be put to permanent use once the quayside has been rebuilt to ease traffic.

What about Budapest

Municipality vision



9,6km

Danube-front pedestrian and cycle path

MOSCOW PROMENADE, CARL LUTZ RAKPART

Unfortunately, the sections renovated in 2017 are still of an earlier design, with less green space and fewer trees - but it's still a new coastal promenade between the city centre and the Water Catcher.

ID. ANTALL JÓZSEF QUAY - NORTH

In 2021, the section between Margaret Bridge and the Parliament was completed, with the new plans retaining the coastal steps and a wider pedestrian promenade and 34 ground-connected trees.

RAK-PARK

We will create a continuous pedestrian and cycling promenade, make the quayside greener and tidier, and increase recreational opportunities on the most beautiful stretch of the Danube in Budapest.

NEHRU COAST, SZELLA PROMENADE

The Nehru Bank, renewed with the support of the capital, is the largest Danube-front park in the city centre, where life is always bustling. The stretch between Petőfi Bridge and Rákóczi Bridge will be a good place to be once the HÉV rails are removed.

ATHLETICS STADIUM PROMENADE

Budapest has a completely new, previously closed Danube bank and a new footbridge, which will make it possible to cross it on foot and by bicycle to the planned large park on Csepel Island.

ID. ANTALL JÓZSEF QUAY - SOUTH

- Expanded green spaces and double tree line
- Renewed pedestrian promenade on the waterfront
- 2x1 traffic-attenuated road lanes, 30 km/h
- Directional bike lanes instead of parking lanes

PICTURE SPACE

- Accessible, renewable green spaces
- Footpaths instead of roundabouts, pedestrian connection between Zrínyi Street and Chain Bridge
- Representative space in front of the Academy

JANE HAINING RAKPART

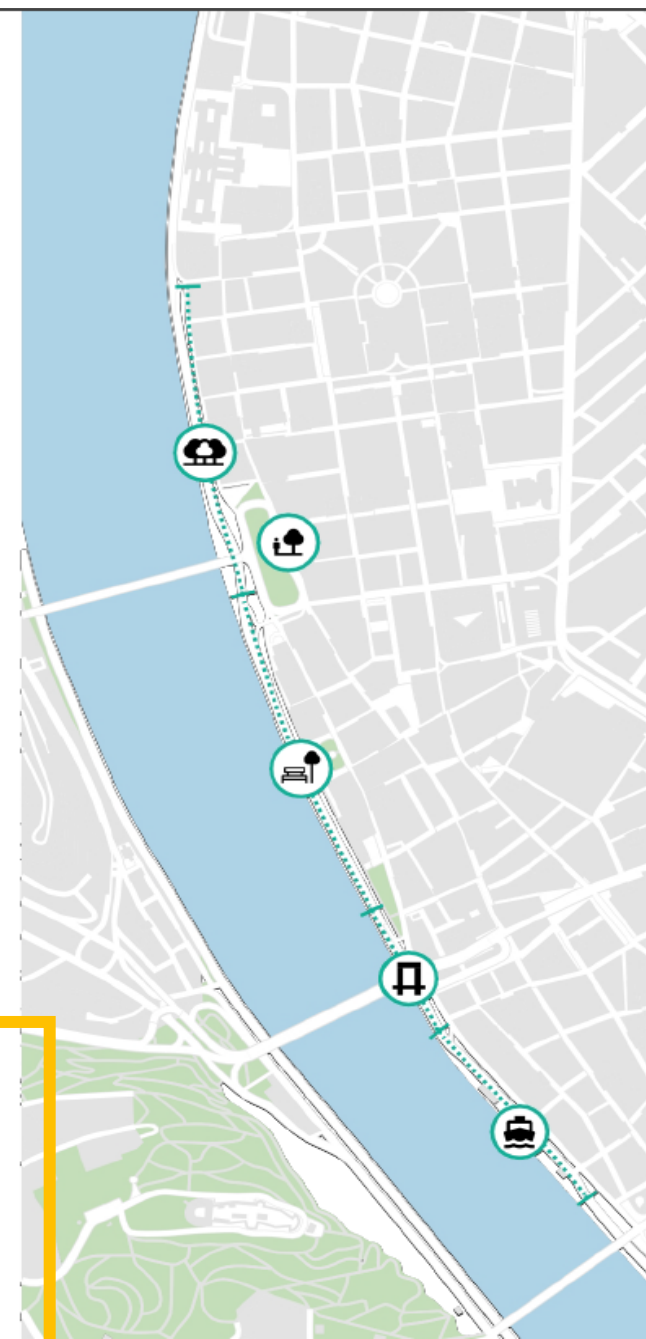
- New green spaces and tree groups
- Pedestrian promenade and event space
- Bicycle path and service road to serve the ports

ERZSÉBET BRIDGE, PESTI BRIDGE

- New pedestrian public space
- Stepped seafront with waterfront experience
- Transport links on the upper quay

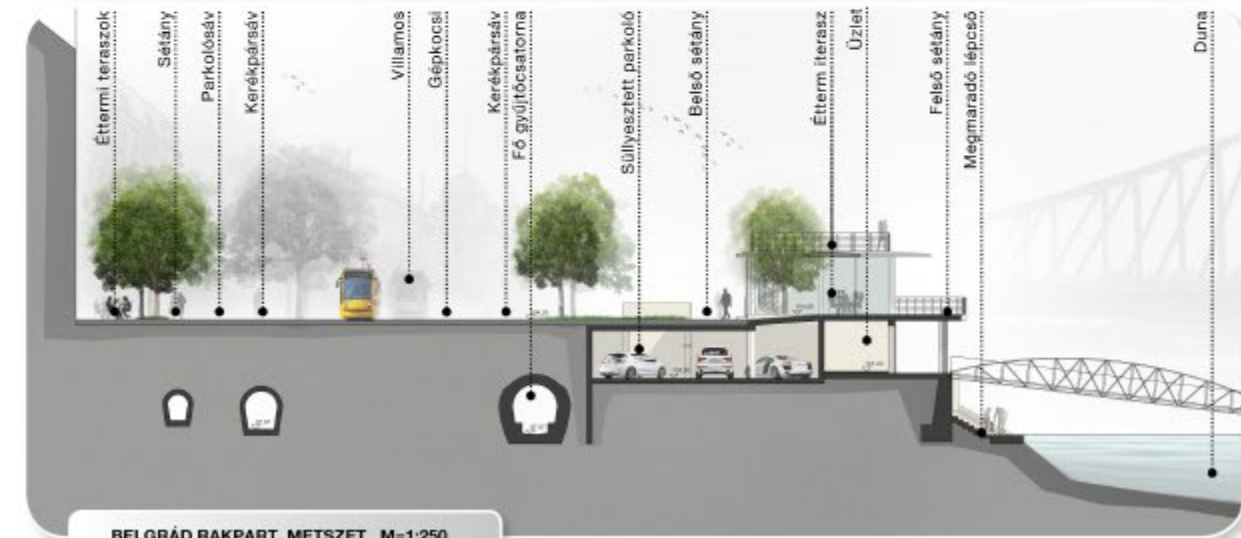
BELGRADE QUAY

- New green spaces and a tree line
- Widened pavements and promenade, new zebra crossings
- Restaurants and catering on the beach
- Cycle path and service road on the coastal side, traffic-calmed residential street on the side of the houses
- Managed parking, residential parking spaces



The competition proposal

Transforming streets into pedestrian-friendly zones while eliminating cars



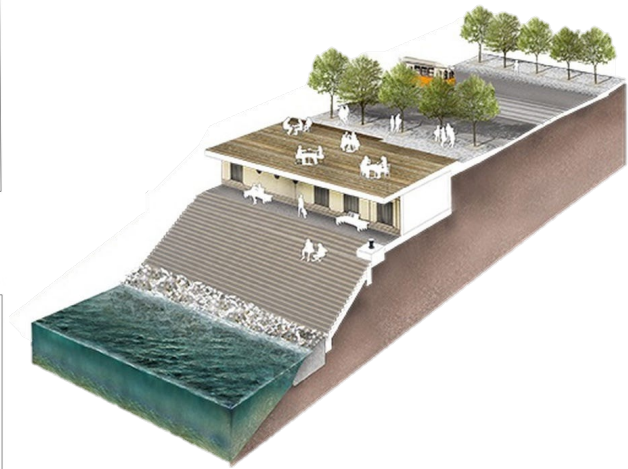
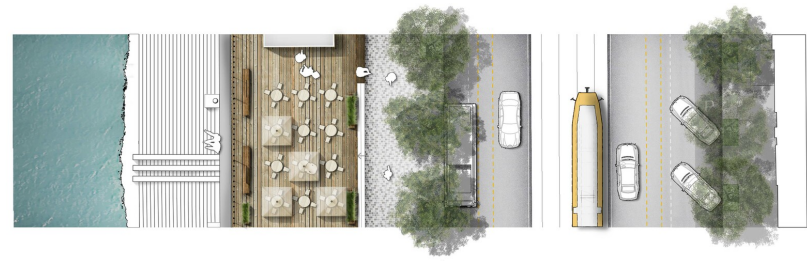
BELGRÁD RAKPART, METSZET M=1:250



BELGRÁD RAKPART, METSZET M=1:250

The competition proposal, 1st prize

Transforming streets into pedestrian-friendly zones while eliminating cars



Budapest

Cruise ship occupation to the riverfront // my vision : place for all

the parliament surrounding attractive area day/night and summer/winter (even though there are no leisure places and recreational function)

the arched lane, the square near to church, connect the riverfront to the

4storey hight

6/7storey hight

residential buildings, some restaurants on the ground floor,

parking lot

existing cafes

the tram line

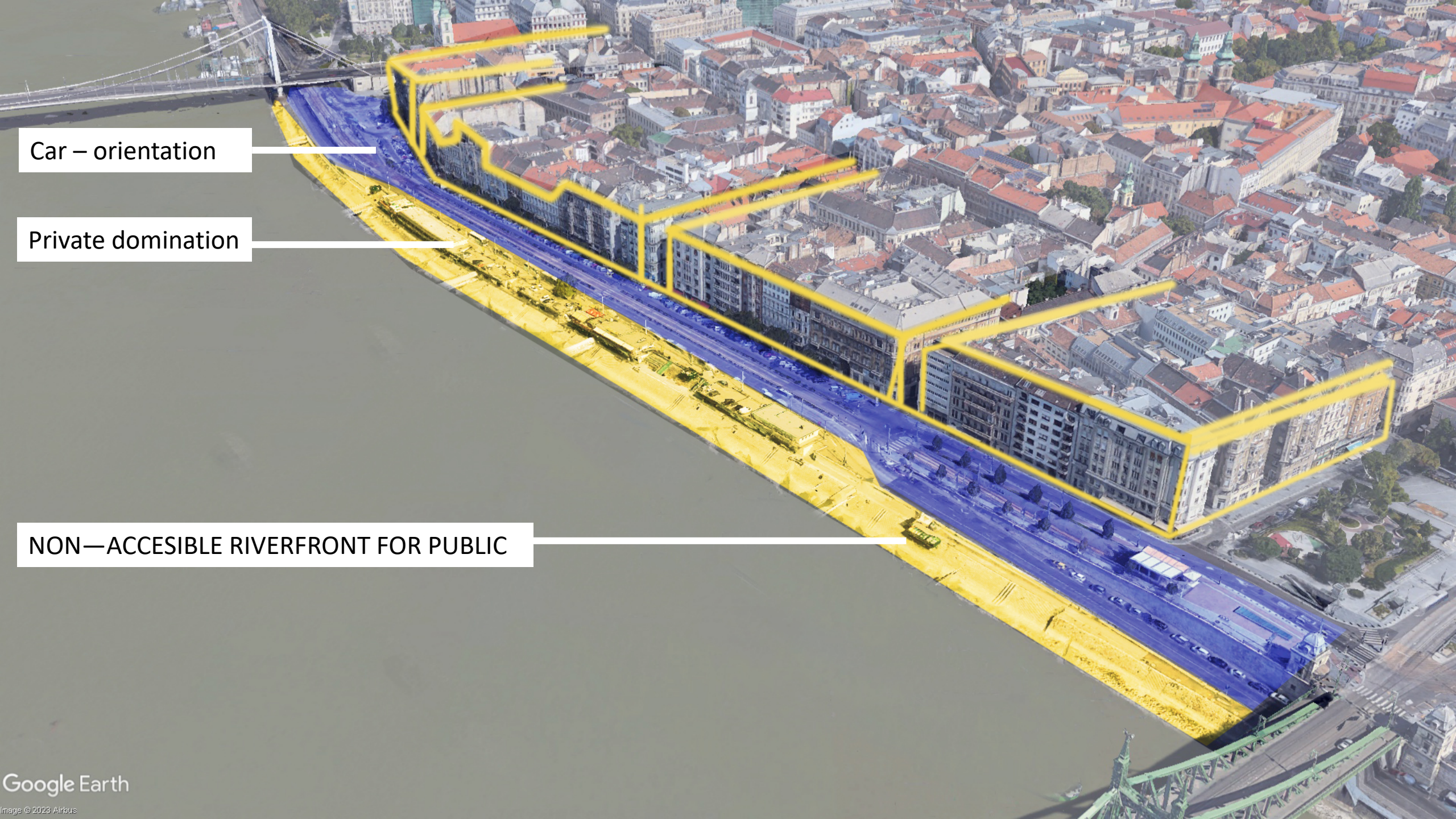
liberty statue and the hill, visual-domination through the city, landscape

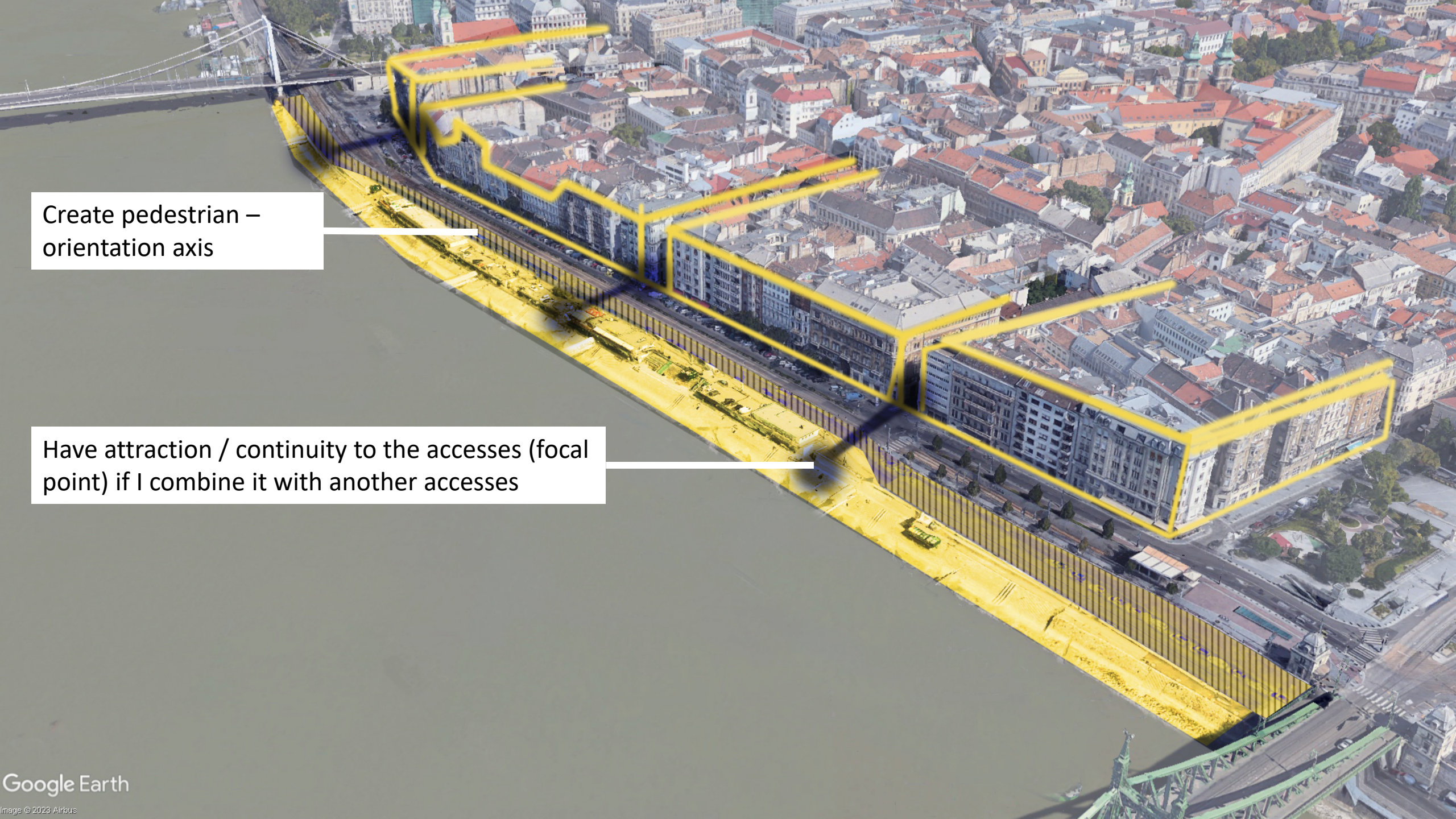
cafes on the riverside, revitalized riverfront for pedestrian orientation

Car – orientation

Private domination

NON—ACCESIBLE RIVERFRONT FOR PUBLIC



An aerial photograph of a city waterfront, likely in Europe, showing a river, a suspension bridge, and a dense urban area. The image is overlaid with yellow 3D architectural models of buildings and walkways along the riverbank. Two white text boxes with black text are present. The first box, on the left, contains the text 'Create pedestrian - orientation axis' and has a white line pointing to a yellow walkway. The second box, below it, contains the text 'Have attraction / continuity to the accesses (focal point) if I combine it with another accesses' and has a white line pointing to a yellow walkway that connects to a building. The Google Earth logo is in the bottom left corner.

Create pedestrian –
orientation axis

Have attraction / continuity to the accesses (focal
point) if I combine it with another accesses

To CONCLUDE ,My vision for the program .

Revitalizing the riverfront between Liberty Bridge and Erzsébet Bridge in Budapest's Pest side offers a chance to create a multifunctional space that caters to various needs while integrating existing structures like cafes and the tram line

1- Pedestrian Zones:

Conversion of Road Lanes: Dedicate one or more lanes along the river for pedestrian use, creating promenades, green spaces, and seating areas. This space can connect existing cafes and provide unhindered access to the river, fostering a pedestrian-friendly environment.

2-Cafes and Dining Areas:

Enhance Existing Cafes: Collaborate with existing cafes to provide outdoor seating that seamlessly integrates with the pedestrian zone. Ensure these spaces complement the overall design and encourage social interactions along the riverfront.

3-Cultural and Recreational Spaces:

Public Art Installations and Performance Areas: Designate spaces for art installations, or interactive elements that celebrate Budapest's culture. Include areas for performances, exhibitions, or small events to promote local culture and creativity.

4-Green Spaces and Recreation:

Park Areas and Leisure Zones: Introduce green spaces, or recreational zones along the embankment. Consider incorporating features like playgrounds, exercise stations, or spaces for relaxation to attract families and individuals.

Area: Dedicate approximately 2-3 lanes of the existing road, along the riverfront.

Target: Primarily serves pedestrians, joggers, cyclists, and families, aiming to create a safe and accessible pathway for leisure activities and commuting.

Area: Allocate spaces adjacent to existing cafes, utilizing approximately 100-150 square meters for each cafe's outdoor seating.

Target: Visitors frequenting the cafes, pedestrians using the riverfront, and tourists seeking a place to relax and enjoy refreshments with a view of the Danube..

Area: Designate specific zones totaling around 500-700 square meters for art installations, performance stages, or small event areas.

Target: Residents and visitors interested in cultural events, art enthusiasts, and those seeking entertainment along the riverfront.

Area: Introduce green spaces and recreation zones.

Target: Families with children, fitness enthusiasts, picnickers, and individuals seeking relaxation amidst nature along the riverfront.

5-Integration with Tram Line:

Tram Line Enhancement: Reconfigure the tram line to seamlessly **integrate with the pedestrian zone**. Design tram **stops that harmonize with the overall aesthetics and facilitate easy access for commuters and tourists**.

6-Waterfront Access: (provide the possibility)!

Riverside Platforms and Viewing Points: Create elevated platforms or viewing points along the river, offering panoramic views and spaces for contemplation, photography, or simply enjoying the scenic beauty of the Danube.

7-Accessibility and Connectivity:

Bicycle Lanes and Walkways: Introduce designated bicycle lanes and walking paths that connect adjacent areas and encourage alternative modes of transportation.

Access Points: Ensure multiple access points along the embankment for easy entry and exit, allowing visitors to explore different sections of the riverfront.

8-Community Engagement and Education: (option)

Informational Signage and Interpretive Centers(kiosks like one of the café areas) :

Install signage or small information centers that highlight the history, significance, and ecological aspects of the Danube River, engaging both residents and tourists.

Sustainability Initiatives: (deal with the infrastructure)

Green Infrastructure: Implement sustainable elements like rain gardens, permeable pavements.

Area: Redesign tram stops and tracks, ensuring seamless integration with pedestrian areas.

Target: Commuters using the tram, tourists exploring the city, and pedestrians navigating the riverfront.

Area: Construct viewing platforms and riverside points over approximately 50-100 meters, providing scenic viewpoints and spaces for contemplation.

Target: Locals and tourists seeking picturesque views of the Danube, photographers, and individuals wanting to enjoy the river's beauty ,liberty hill ,castle hill view

Area: ensuring easy connectivity and accessibility to adjacent areas.(perpendicular connection) 5th district, the center pedestrian lane

Target: Cyclists, pedestrians commuting or enjoying leisure walks, promoting alternative transportation modes along the riverfront.

Area: Establish information centers or signage spread across 100-150 square meters, strategically placed to offer insights into the river's history and ecology.

Target: Locals interested in the area's heritage, tourists seeking information, and individuals wanting to learn more about the riverfront.

The lower embankment ,flood area ,high water level

Revitalizing riverfronts within cities holds immense significance, intertwining the essence of urbanity with the intrinsic quality of life for its residents. From an urban study theory perspective, the importance of such revitalization efforts extends beyond the physical transformation of the waterfront. It inherently redefines the socio-cultural, economic, and environmental fabric of a city, elevating its image and profoundly impacting the quality of life for its inhabitants.

By considering these potentials, the revitalization of the riverfront between Liberty Bridge and Erzsébet Bridge on the Pest side can create a vibrant, inclusive, and attractive space that celebrates the city's culture, history, and natural beauty while integrating existing amenities like cafes and tramlines seamlessly into the design.