UNIVERSIDADE DA BEIRA INTERIOR
Engenharia

Building of Centre of Arts as a part of Environmental Restoration of Urban River in The Metropolitan Region of Wroclaw.

Aleksandra Maria Zajko

Dissertation
Architecture

Tutor/Orientador: Ana Maria Tavares Ferreira Martins

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Abstract

This project aims to expand one´s understanding of environmental discourses and practices in the river site area of Wroclaw city by introducing public culture facilities. Wroclaw´s river scape with its impressive scale and the spacious grand of beside architecture makes one feel esthetically amazed with profound and lasting effect. Over the course of hundreds of years Odra river with its history and beauty came to play a central role in Wrocław's city scape. I have chosen the project of museum located at the imposing river site island area which over the years constituted an interesting case study in Wroclaw´s cityscape .

Driven by multitude of reasons many urban dwellers tend to gather in rest areas whose city identity is strongly associated with water. The crucial aim for my further work will be the project that physically embodies a wide variety of uses of the river site area that will enrich and compositionally unite the city panorama with emphasis on the dimensions of community and environmental contexts of public spaces.
The project of the centre of arts will enrich urban water scape, by focusing on the interrelations between environmental structure and urban. The design will involve public space which gives the visitor an opportunity to experience the wide range of programs available as well as the appreciation of the views available. What is more the project will consider measures that should be implemented in the city planning in order to improve the river policies.

Key-Words

Architecture, Design, Museum, City River,Restoration, Arts

Table of Contents

Table of Images

Objectives

Overall purpose of the study is to find a conceptual solution for rehabilitation of the part of the city river bank together with the design of the building of the Museum of Arts that will become part of city environment standing as a unique and memorable place.

The project will aim to provide significant benefits in every area of urban life, creating the space that will mark a new element in the still thriving area of the space within walking distance of a historic city center of Wrocław.

Urban rehabilitation of the river bank aims to recreate canoe station as well as canal connection of both rivers: River Oława and River Odra. The project needs to cover the green spaces and strolling areas by the bank using environmentally conscious design techniques.

The newly created area should offer an opportunity to join overlapping spaces of Art-Museum, Science-Wrocław University of technology, Leasure- newly created green areas.

In the broader context of the revitalization of the area at “Grobla”, should take into account existing functional and communicative disadvantages with particular regard to the transition in Social square area.

The architecture of museum building itself should reflect contemporary design tendencies and serve as welcoming space which will become a a piece of the Wrocław’s urban fabric. The location of the building marks rigid conditions that need to be observed. The building by virtue of its size, location, must have a symobolic outcome that will become crucial part of the socio-cultural map of Warcław.

Methodology

This process consists of essential parts: analysis of historic and environmental conditions, interactive design and elaboration of the final concept.
The first stage consists in conducting a through studies that will cover urban research and recognition of the site. The urban planning of the preparatory work needs to include the local vision and cover greenery, transportation and water conditions. This also includes secondary data analysis, research of the expectations of the various groups as well as a preliminary analysis of the resources of space.
The second, essential stage, is the part that consists in designing solutions with recognition to given design constrains.
The final concept is to be the last stage that involves discussion on the concepts and final decision.

Introdction

The imposing Odra river site area over the years constituted an interesting case study in Wroclaw´s cityscape. The relationship to city river reminds in many ways the relationship between the time and space. What is more it has always been stronsly connected with the historical legacies, economic development and socio-cultural elements of the city of Wrocław.

Together with transformations, functions of the River have put the dominating role of transport, which by modern infrastructure development has decreased significantly and lost its economic nature. This has strengthened the role of the boulevards in cities which main function was to take inhabitants closer to the River.

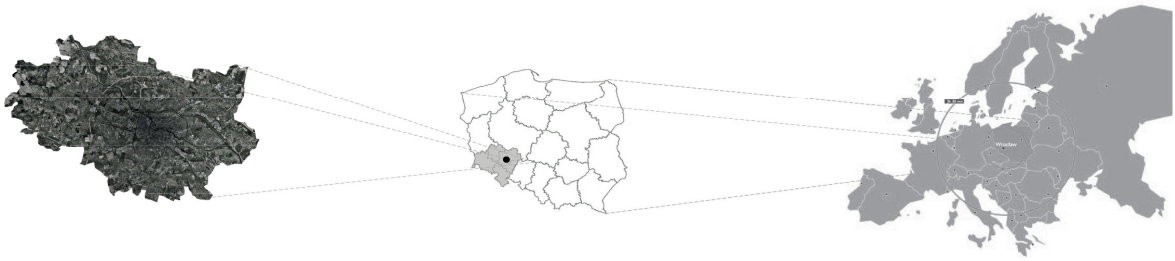
Contemporary architectural and urban design projects task is to transform the river areas by introducing new features mainly representative and leisure in such a way as to become the green city lounge. This happens mainly by the regeneration and integrated process of spatial, social and economic transformation. This contributes to the improvement of the quality of urban governance, restoration of Wrocław inhabitants. As one can observe after Dublin, Amsterdam or Dubai, that the heart of urban planning increasingly expressed a relationship the city and water in need for reintegration. Modern Design efforts now focus on the integration of urban tissue, with the river and its surroundings.

Redevelopment of River sites is now a standing point of the programme to improve conditions and increase the attractiveness of the city. In particular that the authorities of many cities, prompted by the success of river revitallisation in Bilbao. Without doubt the most popular example of a return to the River is redevelopment of the edges of the River Nervion in Bilbao with diverse features: housing, services as well as cultural Guggenheim Museum. This showed that the City River has a quality of attracting inhabitants not only due to new, attractive place of residence and work, but also becaming a tourist attraction. This recovery of the city began to identify as the "Bilbao effect"

City River Historical background

The city of Wrocław

Wrocław occupies the south-western part of Poland commonly called Lower Silesia. Wroclaw is the fourth largest city in Poland and the largest one in the west of the country. Its surface area is 293 km2, and it is inhabited by over 630 thousand of citizens. The whole Lower Silesia is situated in the river basin of Odra. WROCŁAW is situated in southwest Poland on the Odra River and is a typical large city in Central Europe. With its superb location in the heart of Europe, Wrocław is easily accessed by road, rail, air and even water. The city's strategic location is enhanced by many international transport routes running across Wrocław (national road number 8 from Warsaw, national road number 5 from Poznań, motorway A4 from Cracow, Katowice to Berlin, Dresden).



Distance between Wrocław and selected cities: 1600 km–Moscow 790 km–Vilnius 1060 km–Kiev 1440 km–Rome 1350 km–London 1290 km–Paris 1050 km–Brussels 730 km–Copenhagen 970 km–Amsterdam 720 km–Frankfurt Main 390 km–Bratislava 550 km–Budapest 390 km–Vienna 340 km–Warsaw 350 km–Berlin 280 km–Prague

Image λ – Location of Wrocław at the European Map

Wroclaw is a unique city, consisting of 12 islands connected with 117 bridges; it is situated on the Oder river and four of its tributaries: Ślęza, Oława, Bystrzyca and Widawa.

As the largest city of the Lower Silesia, it is its administrative, economic and cultural capital. The history of the city is over a thousand years old, and the heritage of the past combines with the modernity of the business centre.

Multicultural, open to new ideas and challenges, the city is famous for its hospitality, and its cultural and scientific life fascinates and attracts. The unusual history of Wroclaw, constantly enriched by prestigious scientific and cultural events, combined with Polish hospitality and openness of the city, guarantee that everyone who comes here will certainly see and experience something interesting, regardless of whether they spend several hours or several days here.

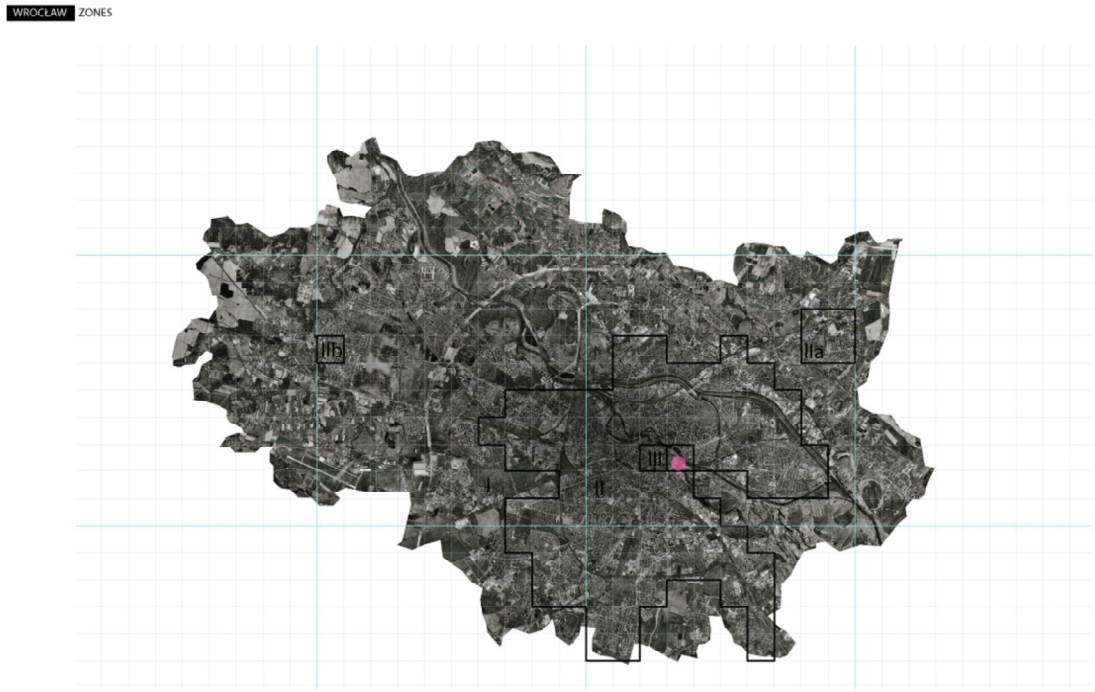


Image µ – The City of Wrocław

urban zones in Wroclaw

I	peripheries
II	industrial zone II a Leśnica, IIb Psie Pole
III	historical city centre

City Area:

Total area: 293 km 2
arable land: 129 km 2
forests and woodlands: 16.7 km 2
Water: 10.0 km 2
built-up areas: 114 km 2
Building floor area: 29 km 2
Industrial buildings: 16 km 2
recreational areas: 17km 2

The Odra river history

Odra- river commonly called the soul of Wroclaw, for no reason neglected in urban development, now starts to gain new value in the city scape. The Odra is the second longest river in Poland, after the Vistula, covering 742km in Poland and 112km in the Czech Republic, from where it originates in the Oder Mountains.

Image v – Odra in XIII century - Area of Location of the project is seen on the leftside

The Odra was known to the Romans as Viadrus or Viadua, and was first referred to as the Odera around 990. Over the years the river gained more and more importance to Wroclaw, both as part of the trading routes that linked Russia, Germany and Bavaria together , and also as a source of life and energy. The first Slavic tribes osiedliły Oder here over the centuries ago.

As early as the 13th century dams were erected to protect the agricultural industry and water wheels and mills took advantage of the river's current to generate power.

Today Wroclaw has two ports on the Odra and the river continues to play a part in trade economy, forming one of the city's many great transport links. It could be difficult to imagine Wroclaw without the Odra .

The city is defined by streams of the river with its numerous canals, as well as by the 12 islands and over 120 bridges that cross it - all of which bring so much life, character and charm to the Lower Silesian city. This is the exceptional nature of the Wrocław consist the twelve original Islands and two hundred and twenty bridges. Thanks to many waterways and spans Wroclaw has been dubbed as the ‘Venice of Poland’ .

The City River transport history

The River measles developed through the ages, first with defensive functions, then helpful in trade in goods.

However, In the 19th century it was noted that the river can also be used for recreational purposes. About the early passenger sailing in Wrocław, at the time of the emergence in 1838. This gave impetus to the creation of the so-called white fleet and the construction of the first passenger ship in 1870, when the shipping companies also produce began to specialise in the organisation of the cruise voyages. In the course of the year was six shipping companies engaged in passenger traffic.

Image ξ – The site of the project in XIX century

At the turn of the 19th and 20th century in Wrocław Odra had about ten vessels, including cruise ships with a length of 46 metres and take over 500 passengers. During this time the season passenger services lasted on the oder short-since may by 5-6 months. The social life in terminals, andby the river restaurants bloomed in the seams.

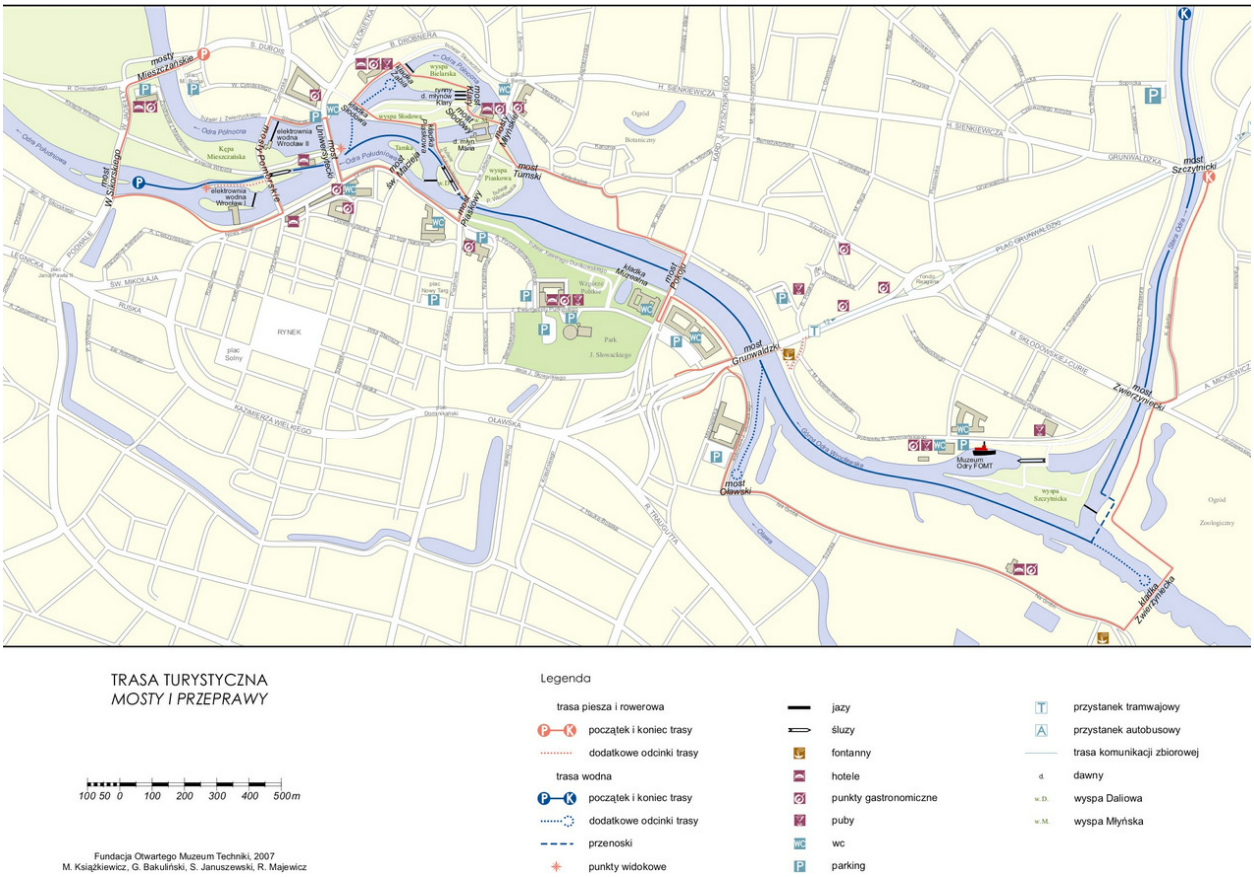


Image o – The city river transportatiom programme

Passenger transport was performed by sailing and amounted in 1947 thousands of people to reach in the 1960 the number of 255 thousand people.

Its decline started in 1988 and in the postwar period. Over the years, the main passenger navigation on the Oder was landing at the Zoo or Zwierzyniecka Old Oder guided by school excursions and hiking outside Wroclaw. However this custom has survived to today. Now Wrocław river transportation seems to decline with only remaining two passenger ships of type SP-150: Goplana and Dryad, each with the ability to take on board 200 people.

Wrocław's tradition came already to be the organization of major events concerts, picnics, and sporting events at the river bank. The potential of the River in the capital of Lower Silesia is seen by increasing the number of new investments as apartment complexes.
In the strict centre of the town is a residential suburb of the oder Tower overlooking the Measles. What is more, the dwelling area Marina Park and Wrocław's Promenades, will have its own natural Marina. Near Wrocław zoo is a beach, and along the Oder river are already and still appearing new stroll areas and cycling routes.
Besides Wrocław National Museum the marina is located, where you can hire the equipment, with which you can explore the thriving city by canoe, a boat trip or aquatic tram.

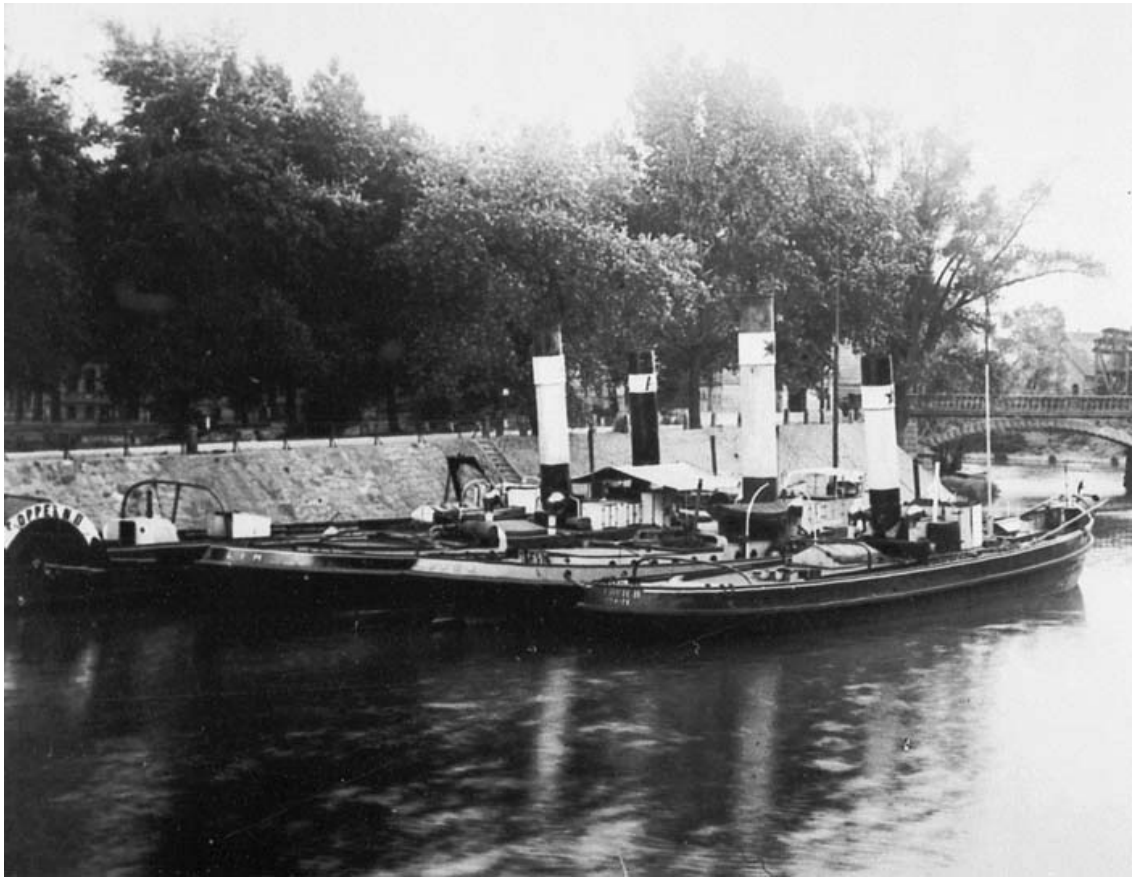


Image π – Aquatic tram, picture made at the project location site near Oławski Bridge

The History of two bridges

Wroclaw is a city of bridges. In the city of Wrocław is reportedly about 200 bridges, giving the city the first place in Poland. There is no doubt that before the war was even better. As Wikipedia suggests was then the mpressivenumber of i thoroughly 303 bridges. This large number of bridges has its reasons-by the five rivers Odra, Wrocław flows: Bystrzyca, Oława, Ślęza, Widawa. The numerous channels and moat of the city intersect the city, which the city has become even more charm.

Each bridge is in itself something metaphysical. In the end, connects the two shores, distant prospects become closer, thanks mostom directly at your fingertips. Each of the bridge lies the beauty, a perfect harmony of mathematical statements. However, the best-known is Most Grunwaldzki, which now passes the honored repairs.

The Grunwaldzki Bridge

Their most famous bridge of Wrocław, called once an imperial, and today Grunwaldzki, has been reproduced on hundreds of thousands of postcards from the hundred years is an icon of the city.

The company has built it with the Green Top Beuchelt. The work lasted only two years, although it was the second in terms of span suspension bridge in Germany-almost 127 m. Impressive gateway bridge pylons were built with 2400 tons-granite quarries, and derived from the Silesian steel structure weighing 2300 t .

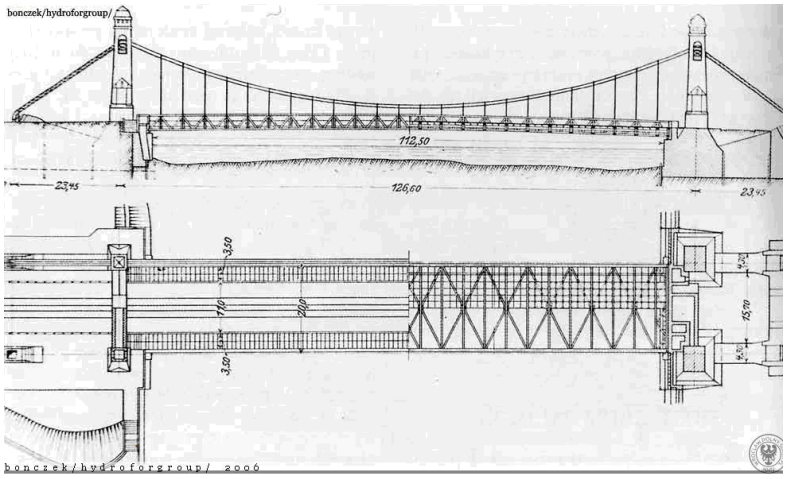


Image ρ – The Grunwaldzki Bridge construction drawings

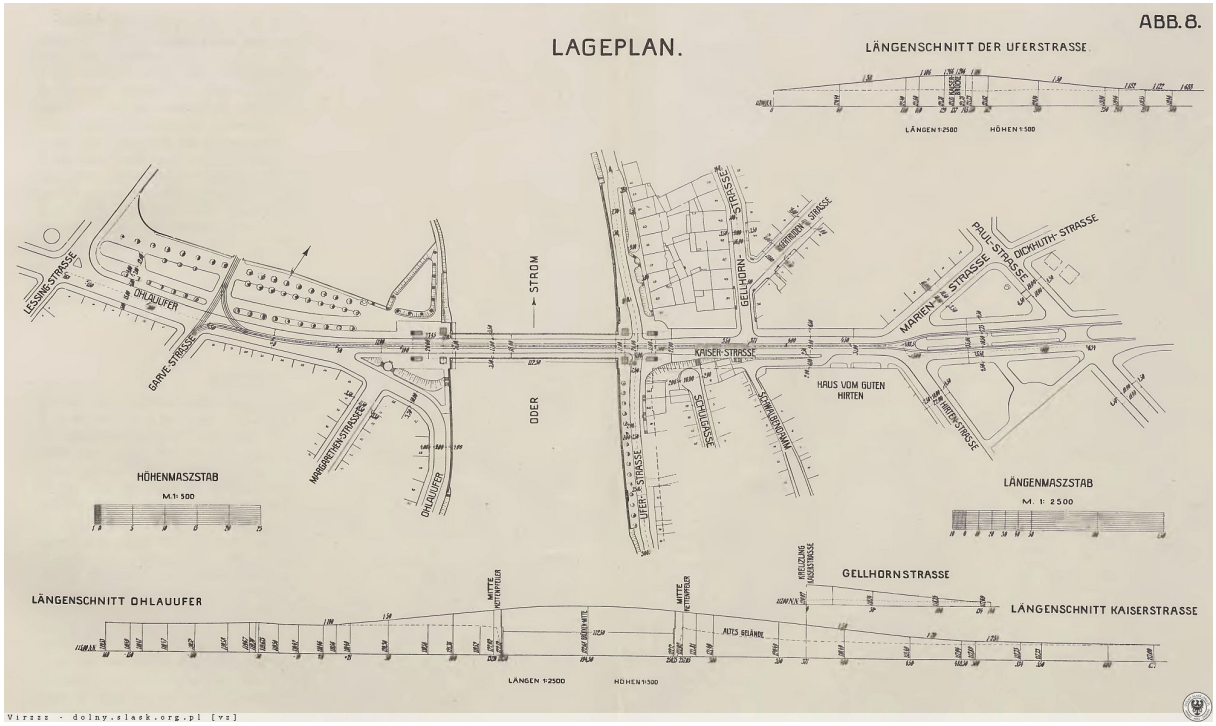


Image μ – The Grunwaldzki Bridge construction drawings

According to the Encyclopedia of Wrocław is the only suspension bridge in the world to launch bands made of sheets.

Among the authors of the masterpieces of art of engineers were the architect and engineer from Berlin and Mayer Hildesheimer architects and builders of urban Construction Deputacji-Karl Klimm and Alfred von Scholtz. Unfortunately, Richard Plüddemann, former City Councillor, who also develops the project construction of Wrocław, the bridge never open-died 1 February 1910.

During the Second World War bridge suffered. During that time a band and the bridge pylons were destroyed. Fortunately most of the construction survived. Refurbishment of the bridge after the war, during which marked several changes and lasted for 2 years.

In 1990, complete refurbishment of the bridge, during which, inter alia, extended at the expense of the sidewalks to the road and the road surface, dating and all trams.

On the status of the technical Bridge all the time employees shall ensure the Wrocław University of technology. Further repairs were carried out only in the year 2004, when renewing the bridge, the steel structure was painted in gray-blue and cleared the granite bridge pylons.

Image ç – The view of Grunwaldzki Bridge

Nowadays, becomes one of the icons of Wrocław, with its powerful steel suspended What is more, Grunwaldzki bridge is one of the most important bridges for students. It combines Grunwaldzki Square Division, where most of the buildings are located and which University campus is, becoming the heartbeat of Wrocław.
In terms of transportation, it is also the part of the national road number 8, that is the route to Warsaw.

The Oławski Bridge

Crossing Oława river existed in this place from the middle ages. Prior to the construction of the Oławski Bridge, there was a footbridge that was used to drive cattle across the Oława, and for a time the bridge was called the Wygonowy Bridge - Cattle drive bridge.The previous years describe it as a wooden bridge related to the function of surrounding areas. Oławski Bridge was also known as Mauritius Brücke or St. Mauritius Bridge
It was constructed during 1882-1883 and was designed by Alexander Kaumann, with assistance from Eger and Reichelt, Beer, Wackwitz and Hoffmann.
It crosses the River at a distance of approximately 200 m from the mouth to the Oder river. The work of carving under the direction of Robert Toberentza and with the cooperation of Heinrich Weltringa, decorative items made by p. Heisler metal-Gustav Trelenberg.

The bridge of Oława is one of the most pristine structures of the city by its magnificent stone architecture and richly decorated lanterns.The bridge is adorned with sculptural elements made by P. Heisler under the direction of Robert Toberentza and in collaboration with Heinrich Weltringa. However, metal decorative elements were made by Gustav Trelenberg. In 1962 and 1990 the bridge was completely renovated.

The bridge is constructed using brick arches and supports, covered with blows of a hammer stone texture. Railings are made in the form of ornate, with elements modeled on the iconography of Baroque architecture. The total length of the bridge is 73.8 meters, and its total width is 14.12 meters. On the bridge roadway surface is made of granite. Before WW II, a tram line ran across the bridge, which was removed during the renovation of track.

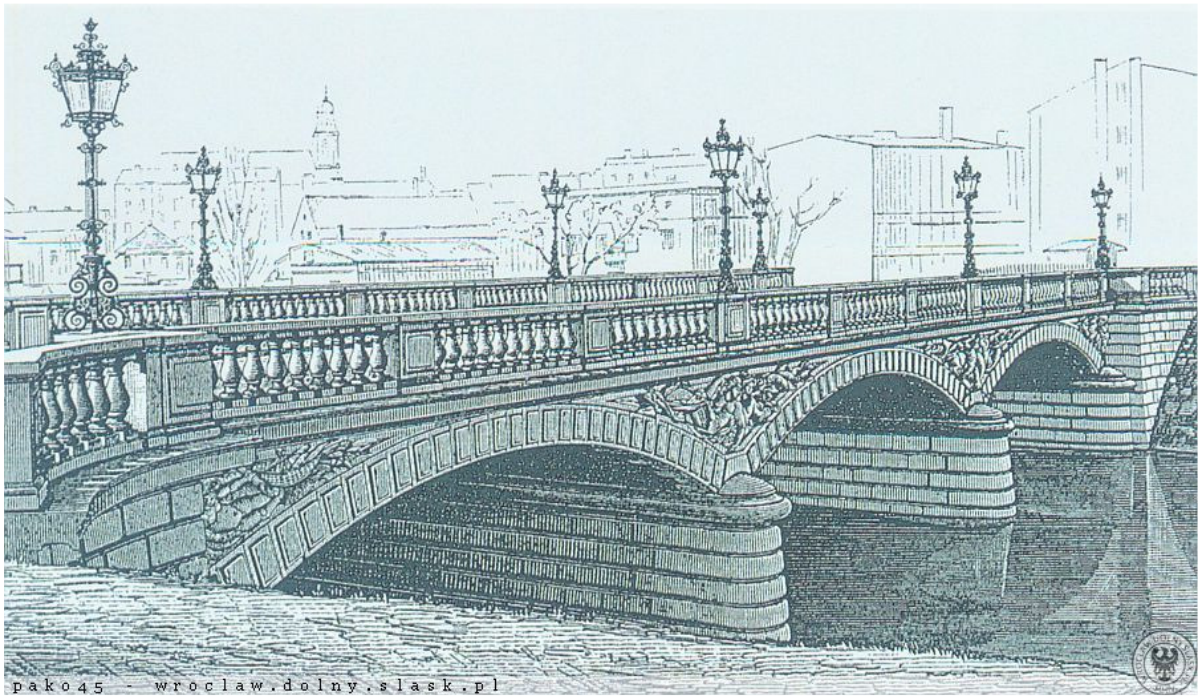


Image σ – The view of Oławski bridge

The Water Tower

The construction of one of the most impressive water buildings in Wrocław was started in 1871 built by the English engineer John Moore's project from Berlin.
Ceremonial plant occurred on 1 August 1871 on the fields of the year before the anniversary of the 600-year anniversary of the privilege of Henry Probus who allowed draw water from Príncipe Oder. The reservoir has a capacity of 4150 m six Tower.
Its facade is commonly compared to the Palace of the great Champions in Malbork, or English residential towers.
Throughout Europe there is a second such solutions because usually the water tower building is a separate object. What amazes the most, the tank clean water and all the machines were located in one building and in its interior the most important device were accommodated reminding the age of steam engineering.

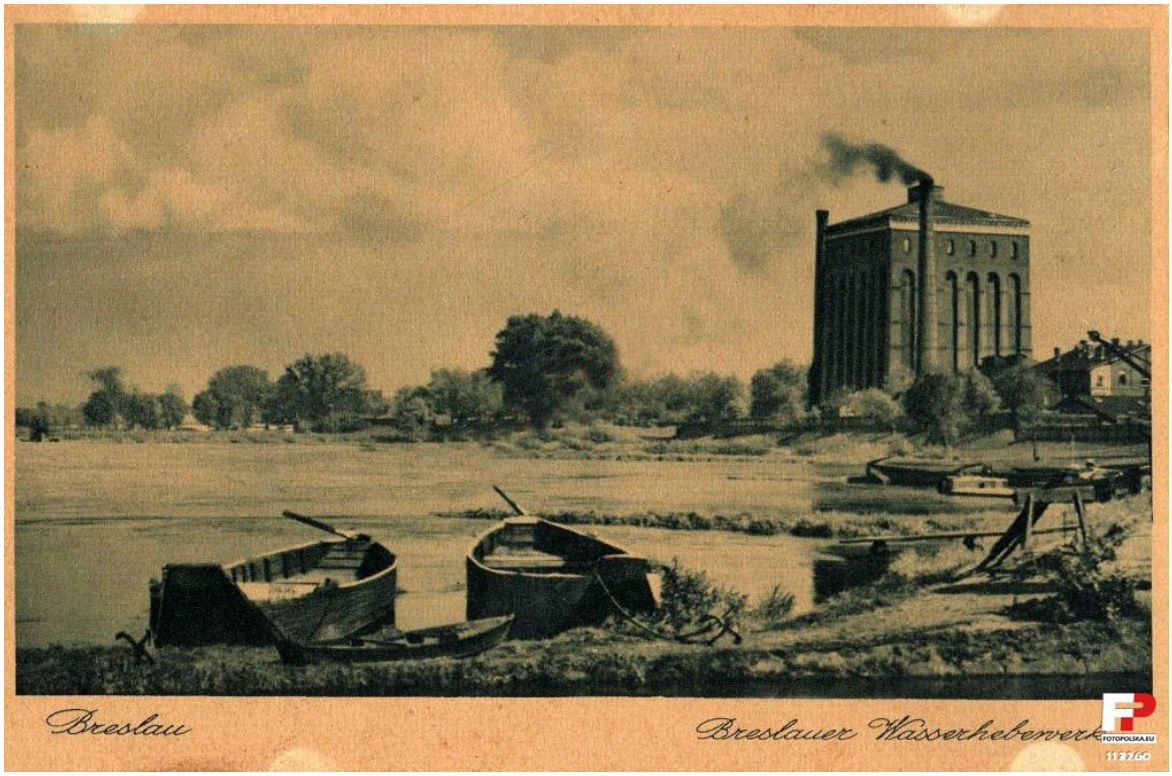


Image λκ – The view of Water tower at the beginning of XX century

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For two years the Tower has become a part of Wrocław Center for Science on the Weir. In its interior are decorated m.in. great aquarium, the cave of the black light and physics laboratory. New restoration project assumes that the exposition will consist of seven departments.

Reasearch and urban analysis

Location and accessibility

The project of Museum will ocuppy the space at so-called “grobla” site of Wrocław’s river bank area. The place is unique thanks to picturesque location at the joint of two rivers: Odra and Oława. This connection allows canoe canal to let into the land what creates pristine green space for docking.

The opposite river bank offers stunning views of university campus buildings as well as XIXth centyry residential area.

The whole site is accentuated by two bridges: Grunwaldzki Bridge and Oławski Bridge. These two step back into the great history of the City.

Besides the oławski bridge one can find new university geocentrum buildings. Nevertheless thenewly developing university infrastructure a t the opposite river bank will be freely connected by the cable cars thet will join campus buildings.

According to the City Hall plans the eastern aera of the social square will be transformed into newly designed residential and business centres.

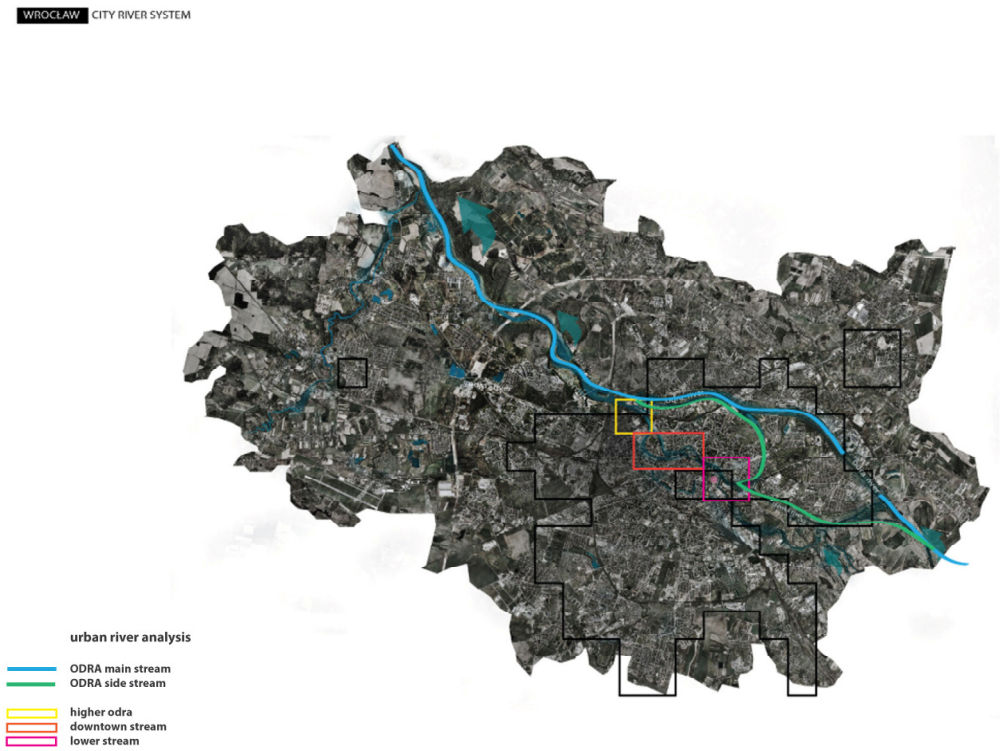
Image λλ – Localisation site of the project

The City river analysis

Image λμ – Panorama view of the riversite

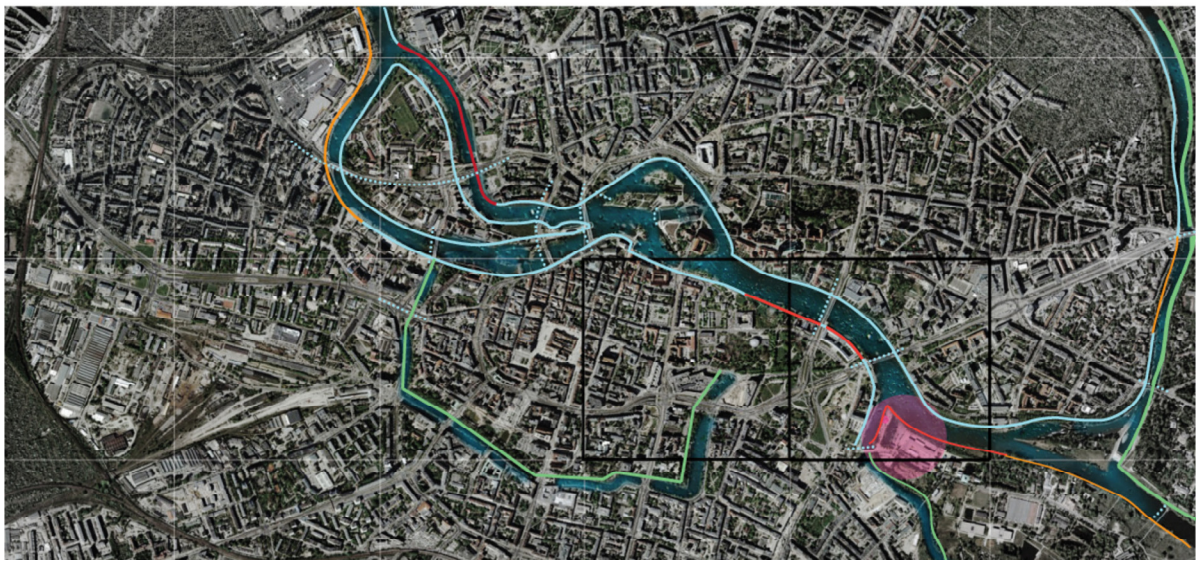
Wrocław since origins based its existence on the river Odra. What is more , the city is the place where the River connect the smaller tributaries, Bystrzyca, Oława, Ślęza and Widawa, there were several natural Islands. Natural relief of the river marked the location which later decided about formation of aoriginal wooden city.This settlement later gave the beginning for contemporary Wrocław.

Thanks to the Odra river, Wrocław comprehensive economic life was heavily developed. Apart from that, the River was the source of the drinking water and was a natural artery of communication with the Baltic Sea.



City undertakes efforts to smooth sttraffic along the bank. Redevelopment of the boulevards is to become the biggest attraction. In the most recent land-use study, one can observe that the biggest changes are planned at the project area called “Nad Groblą”
In many Polish and European cities one can observe a dynamic period of structural, organisational and spatialdevelopment of river front areas. Wrocław’s main river Odra devides a city in a half creating spaces that would not be so thriving without that.
The water has become a feature of the city, this factor watermark prominently, making it a real value.
Providing the city with a unique location, Wrocław disposed of what is not necessary, and learned how to value of what exists in nature.
Contemporary landscape of the city Wrocławia manifests a heritage with the river Odra with its numerous islands and canals. Thanks to the water distribution , Wrocław belongs to the European cities very related to the River. It is worth mentioning that Wrocław is also the city of the thousand km breakaway by which the water supply network drains city .

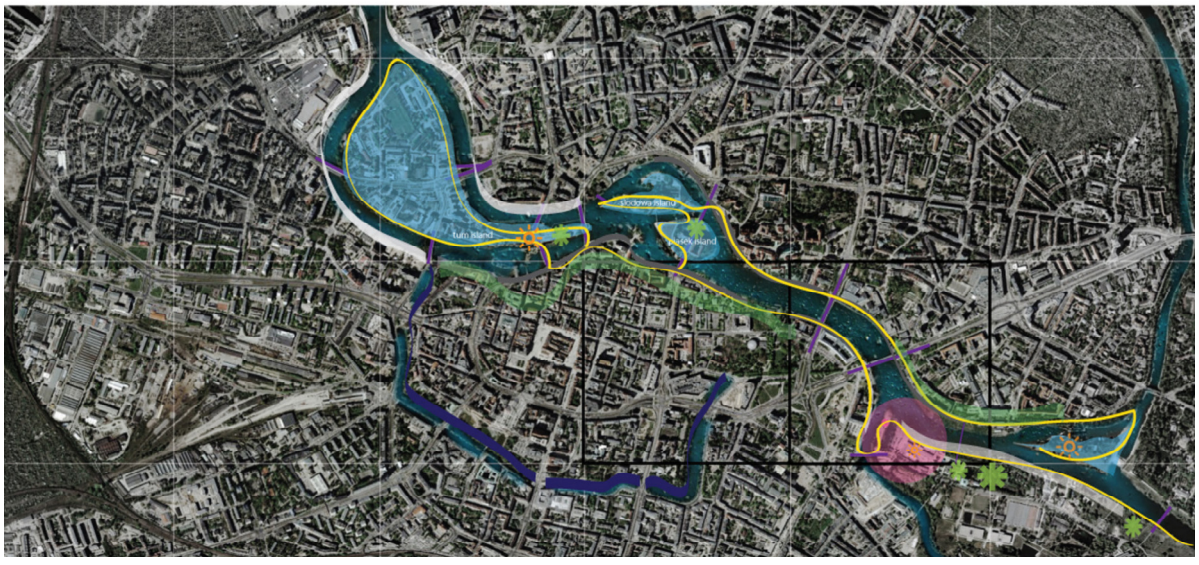
WROCŁAW RIVER BANK CONDITION ANALYSIS



urban river banks analysis

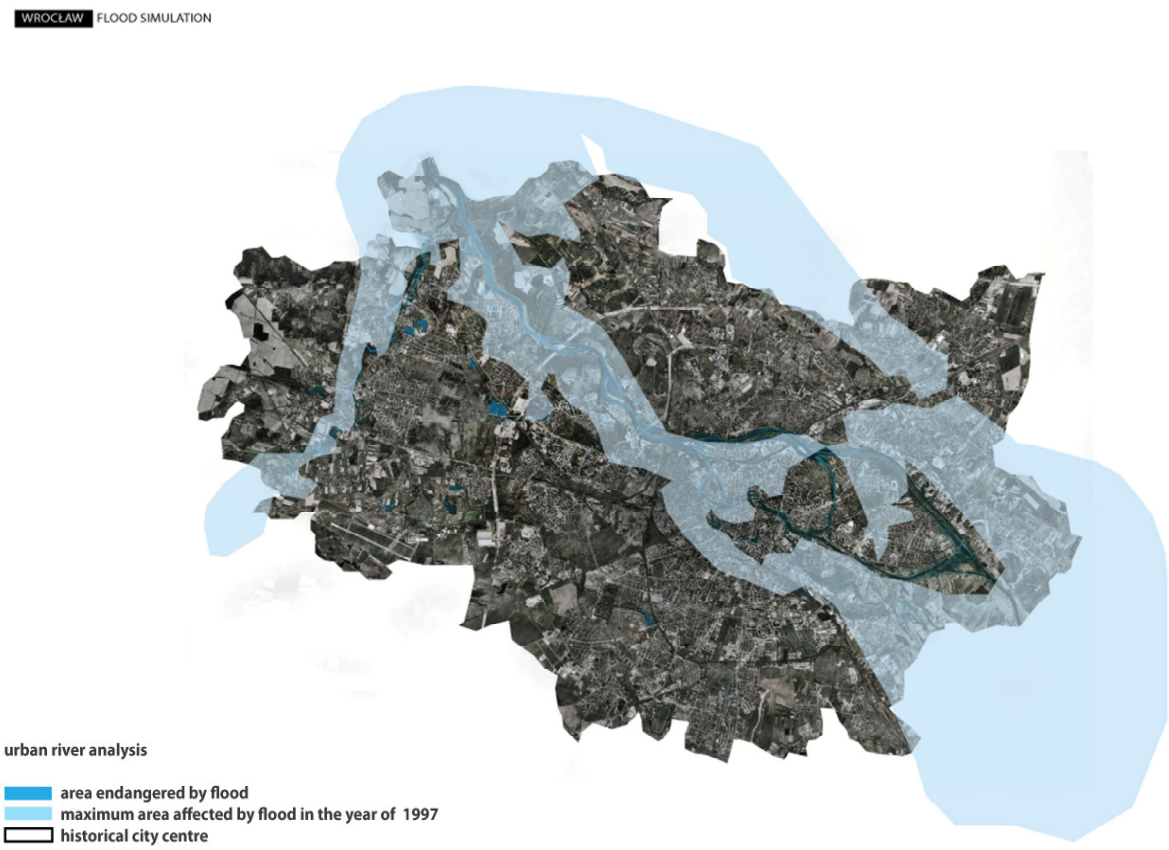
- river bank to reconstruction
- river bank to modernisation
- river bank to liquidation
- river bank to conservation

WROCŁAW RIVER BANK CONDITION ANALYSIS



urban river analysis

- existing bridges/planned bridges
- remainings of old mote
- urban islands
- reinforced river bank
- river bank areas considered to be reinforced
- considered river stroll areas
- considered river recreation areas
- riverside valuable areas
- areas considered to reamain intact



Unfortunately Wrocław is one of the cities in Poland that is endangered by the flood risks. The facts confirm, in the years 1990-2010 river odra was the cause of the losses resulting from disasters caused by 98.5% of the natural phenomena in Poland.

Practically every year one have to deal with the flooding of the regional and local scale, causing significant losses.

Characterization of the sources and causes of flood risk status in the river basin of Odra is long connected to the meteorological conditions resulting both from seasonality, climatic and hydrological conditions.

However, the land-use planning and regulatory work carried out in the past centuries, reduced risk of building loss.

The state of the natural environment

Wroclaw has long been seen as a green city. Along the moat of approximately 4 km long border which stretches the old town is a beautiful green belt.
Urban green areas serve multiple functions: technical, climatic and biological, creating a social space, the public green areas. Shaping public space so as to become a green city comes with creating various structures of the urban planning at different stages of the spatial development of the city.

Urban green areas, located in the heart of the Wrocław city serve the role of public space. City is enriched by the system of parks, boulevards, squares that create space integrating the structure of the city, being the place of social contacts.
Wrocław's greenery distribution is based on the rings and overlapping quoins form well working structure. The first ring of the Green Promenades around the old city was created after urban fortifications at one point at the beginning of the 19th century.
Extended later with adjacent gardens create now the Staromiejski park, Park Hill, and the Hill of Slovak Guerrillas.

The second ring of green form the parks join South Park, Anders Hill, Szczytnicki Park, as well as the Zoo with the complex of the Olympic Stadium. The last ring connects complexes of urban forests.

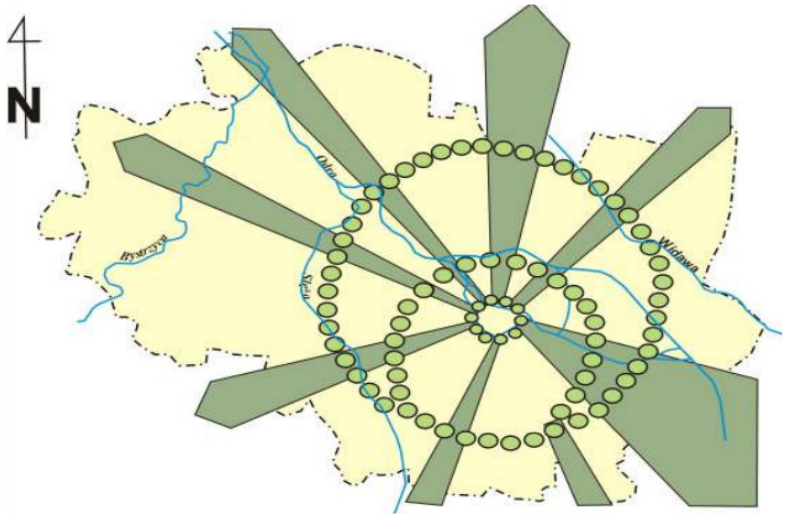
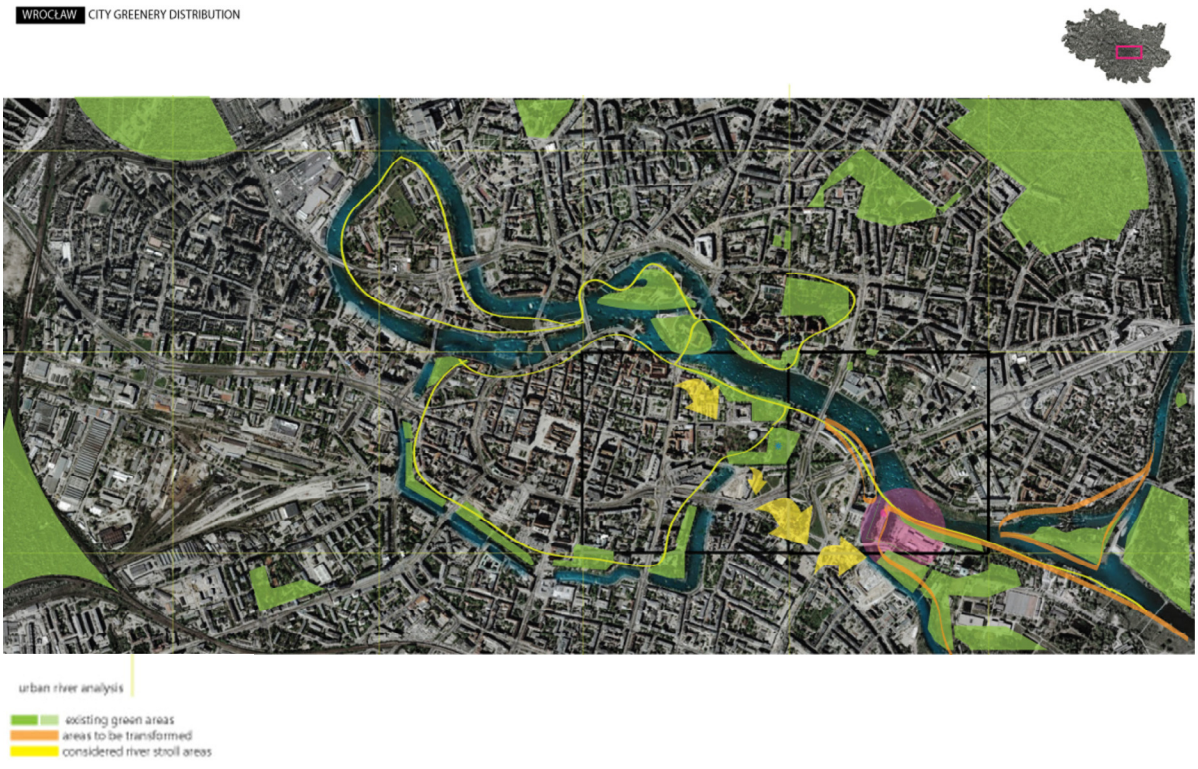


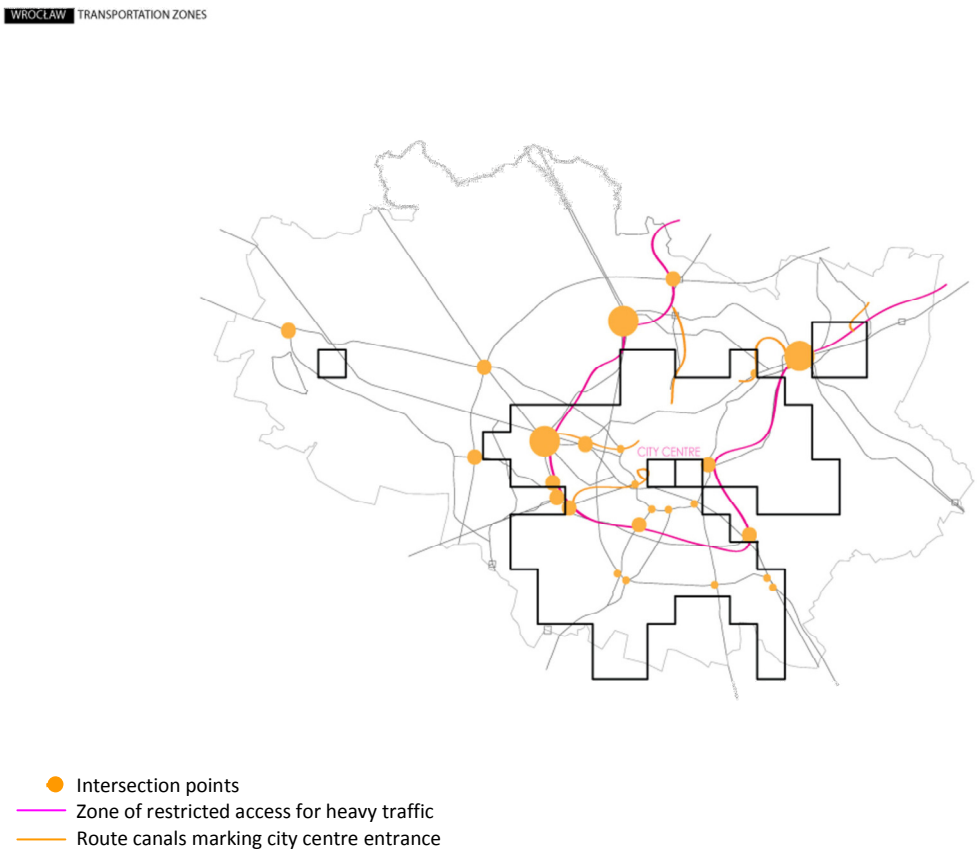
Image λv – Wrocław's greenery distribution is based on the rings

Wroclaw's climate is characterised by its typical characteristics which make it moderate. Mainly because of the location of Wroclaw, oceanic and continental influence cause a large variability of climate. What is more an urban heat island in Wrocław is an established phenomenon.



Transport infrastructure analysis

The city of Wroclaw aims at the creation of a integrated multimodal transport system for the city and region (voivodship). The system is designed in such a way as to make use of individual cars redundant. The project includes new infrastructure investments, a new control system for tram lines, creation of interchanges between various modes, and integration of city public transport with the rail system through common interchange points and coordination of services.

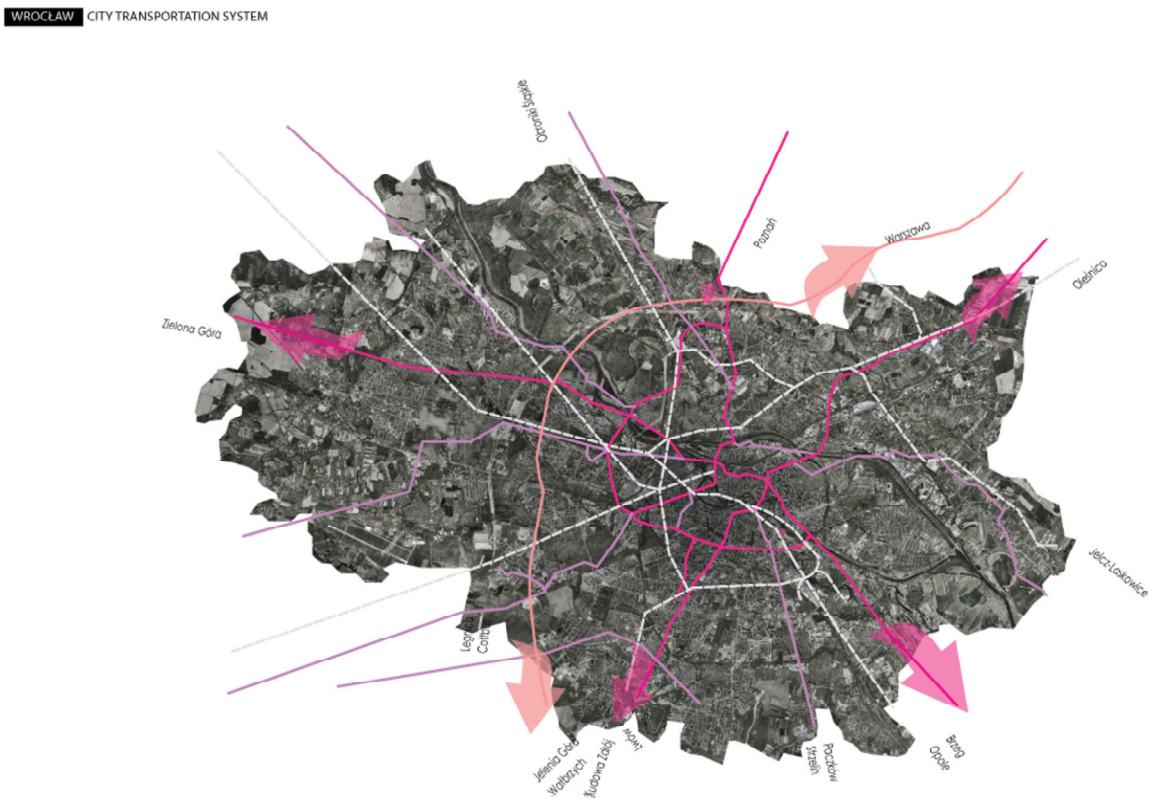


Wroclaw aglomeration rail (Wrocławska Kolej Aglomeracyjna): In order to improve integration of transport between the city and the surrounding area the city will participate in the improvement of rail lines extending to key locations outside the city borders. The plan is that WKA will be independent from the main Polish rail operator PKP. Moreover the city will develop interchanges and provide buses to deliver passengers to/from rail stations. Regional buses will be integrated with rail timetables to further extend the WKA range into areas where rail lines do not exist.

The main goals are: connection to the national and international rail network, provision of a regional service within viovodship, achieving much higher frequency on key routes: Wrocław – Legnica, Wrocław –Wałbrzych, Wrocław – Kłodzko, new internal agglomeration services connecting Wroclaw with Oleśnica, Jelcz, Oława, Wołow and Żmigrod, upgrade of internal city services airport – Wrocław Main Station and Leśnica - Wrocław Świebodzki.

Tram Plus programme: Tram Plus is a new and modern tram system prioritising the connection of external suburbs with the city centre and main rail and regional bus stations. The system will utilise the newest equipment and advanced traffic control technologies.

What is more, Wrocław has a network of more than 150 km of bicycle roads, of which 16 km run through parks and 15 by the shafts of relief works. The System is not yet complete and each year produces the next kilometres. In recent years, one can seen faster development of bicycle routes. The target plan provides for the connection of all important destinations a coherent network mostly along the river Odra.



Transformation of urban areas

Social square revitalization plans

Wrocław's ols social square occupies 37 hectares of the main city area. A few minutes from the Market Square and Grunwaldzki square, with the the proximity of the City Hall offices, the charming church, , Academy of fine arts, the National Museum and wonderful Racławicka-panorama is a part of bustling city centre.

Unfortunately these days it is mostly covered by a concrete estakad and underground passageways. However in accordance with the management plan, this crucial area of the city will be soon transformed. The terrain between pl. Grunwaldzki, National Museum, Panorama Racławicką will be supplemented by residential buildings and Greenery creating a place for restaurants, offices, shops, cafes, banks and other public buildings. The estakad will be kept under the streets of Mazowiecka and Pulaski, until the intersection with the Mound. The new city space will emerge on the square together with the office buildings, stores and restaurants. The buildings will be similar to the height of the main building of the mail, or slightly higher. The buildings, however, ought not to exceed the height of 80 meters. Over the same Oder higher objects are to be provided.

Creating a new urban tissue, was a main goal of the city council. Finally, instead of a mesh of estakad a new idea of social city space will be provided so as to Improve the safety and attractiveness of the surroundings.

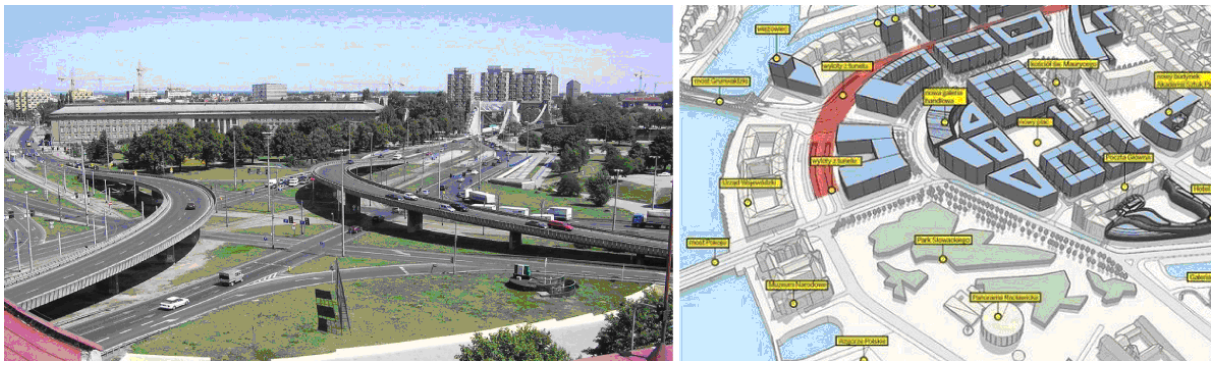
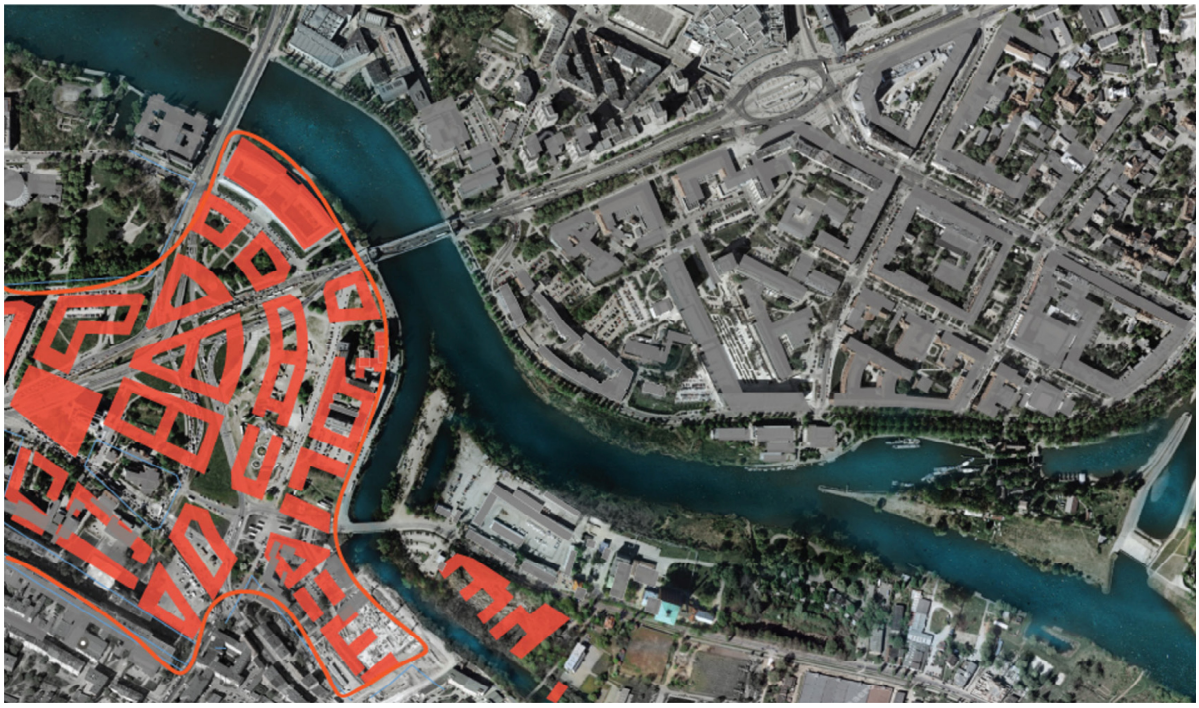


Image λξ – Social square before, and after rehabilitation works

NEW urban transport analysis

existing buildings
existing buildings of special value
existing temporary buildings
areas planned to undergo urban alteration
areas planned to remain intact



NEW urban transport analysis

existing buildings
future planned buildings
areas planned to undergo urban alteration

This wast area in the city centre now is an social and architectural hole. Mostly divided into the city, the estacades, lanes and underpasses for pedestrians. However the location has a huge potential. Such an empty area in the heart of the city can become a paradise for urban planners and investors.

The work on the town square began over two years ago, when the contest for urban rebuilding was announced in July 2007. The first prize was awarded the team of French architects: Ami Szmelcman, Asaph D. Gottesman, Danny Rosen, Inbar Ronen Girati Idan, Ram, Łukasz Czyczoń.

The concept originated with the strengths of selected spatial plan that creates a coherent whole. While the project of the Museum of Arts will become a natural continuation of the pedestrian flow, starting fro the city centre and continnueing at designed river bank rehabilitation area of “Nad Groblą” site.

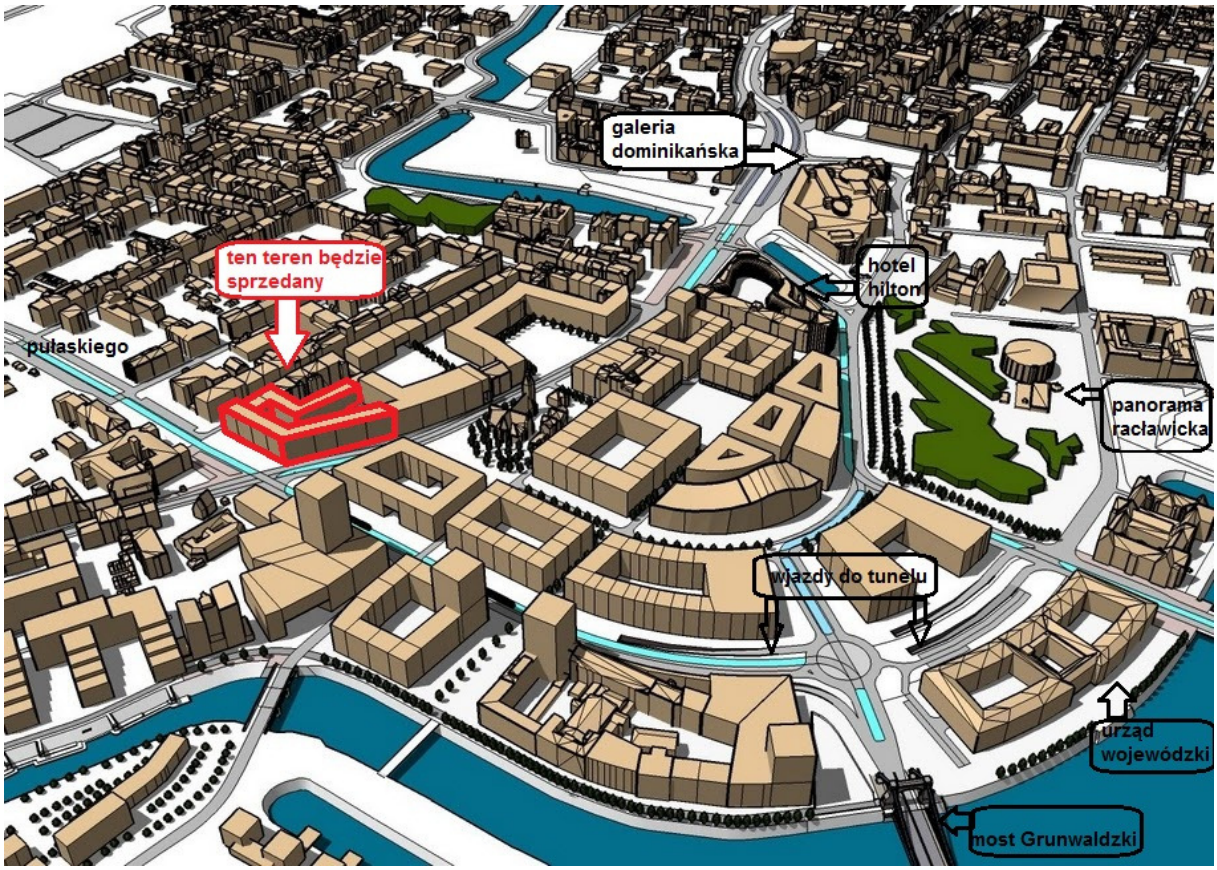


Image λπ – City Hall visualisation drawings of future social square development plans

The University campus development

In the area of the main campus of Wrocław University of Technology engineering the oldest buildings, and the latest buildings of Geocentrum are still under construction on the other side of the river.

The University's Main building in the center of campus at the coast of the Wyspiański is its oldest building. While the newest university buildings are under construction at the opposite bank of the river.

Image λρ – The cable car transition to the opposite side of the river

So as to connect the main campus with the opposite Geocentrum buildings The cable car transition is to be constructed. The queue line will have a length of 500 m above the surface of the oder. They are to be heated, adapted for the carriage of persons with disabilities, and bicycles.

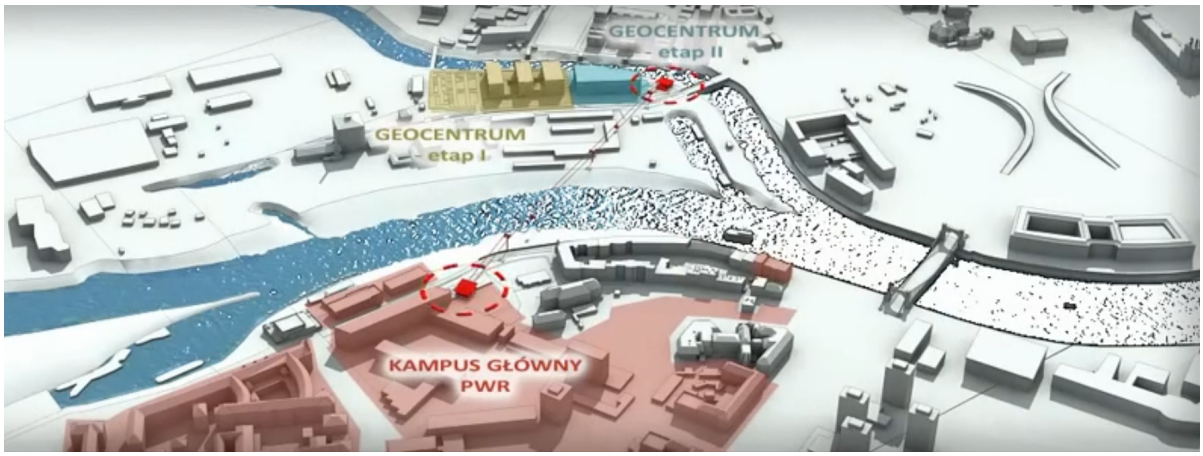
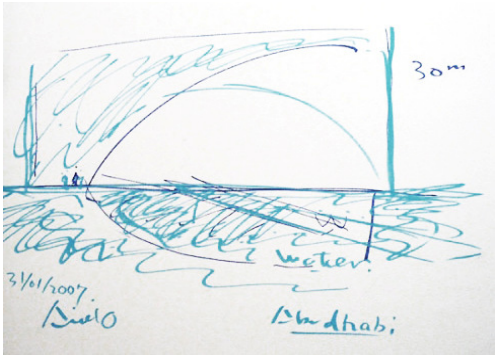


Image λρ – The cable car transition to the new Geocentrum buildings of the University Campus

Cases of study

Museum Martime – Tadao Ando



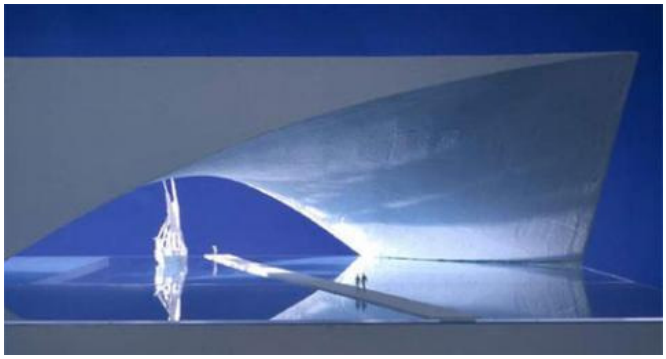


Image λς – Martime Museum, by Tadao Ando

- Tadao Ando designing the Maritime Museum on Saadiyat Island used simple techniques that combined water with light with a view of developing modern form perfectlyreflecting surrounding nature.

- In my project I was strongly inspirited by serene form of the building creating somewhat the gate into the water. Form which construction allows to virtually divide the building into two parts having the top part connected as a joining element. This Idea perfectly reflects given localization and allows to maintain the river canal inside the building. What is more “water below the building” creates a feeling of fluid architectural volume and uninterrupted flow of nature. This marks a strong the relationship with the site.

- The museum architecture as a whole not only evokes an intense visual experience, but also amazes with a play of light and space between the voids of the interior space.

Gdańsk Museum - RKW RHODE Kellermann

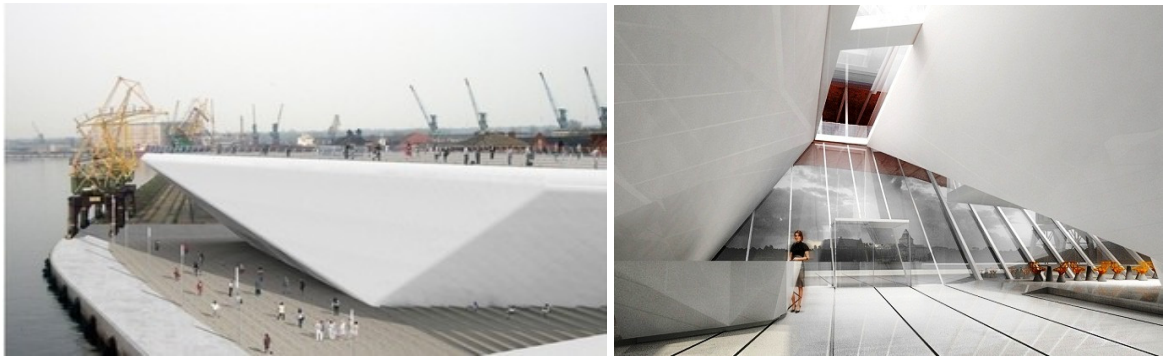


Image λο – Gdańsk Museum by RKW RHODE Kellermann

- Solid of the building was defined by two elements. The first is part of the bottom area with the museum function while other features of folk with the external stairs

- My appreciation is given to the space disposition by extending the solid towards the top. As a result of the limited surface of the bodywork, this helped to obtain the required surface area above the land.

- As a result building creates a homogeneous solid artwork, having a disciplined and consistent expression of architectural form. The design is not only restrained and elegant but at the same time the dynamic what helps to form iconic object that could regain more recognizable character in a panorama of the city.

- The space around the museum was arranged so that ffrom the side of the River there is given access to people and Museum visitors enjoying the educational zone. While, the function was organised so that after the closure of the Museum you can enjoy unrestricted educational zone and Café as well as social zone, offices, workshops, warehouses and technical facilities that have been placed in the southern part of the building.

Museum of Contemporary Art, Oscar Niemeyer

Image λσ – Museum of Contemporary Art, Oscar Niemeyer

- Namely a masterpiece designed by the famous Brazilian architect Oscar Niemeyer shows how to create free form that will have iconic view while respecting the site.

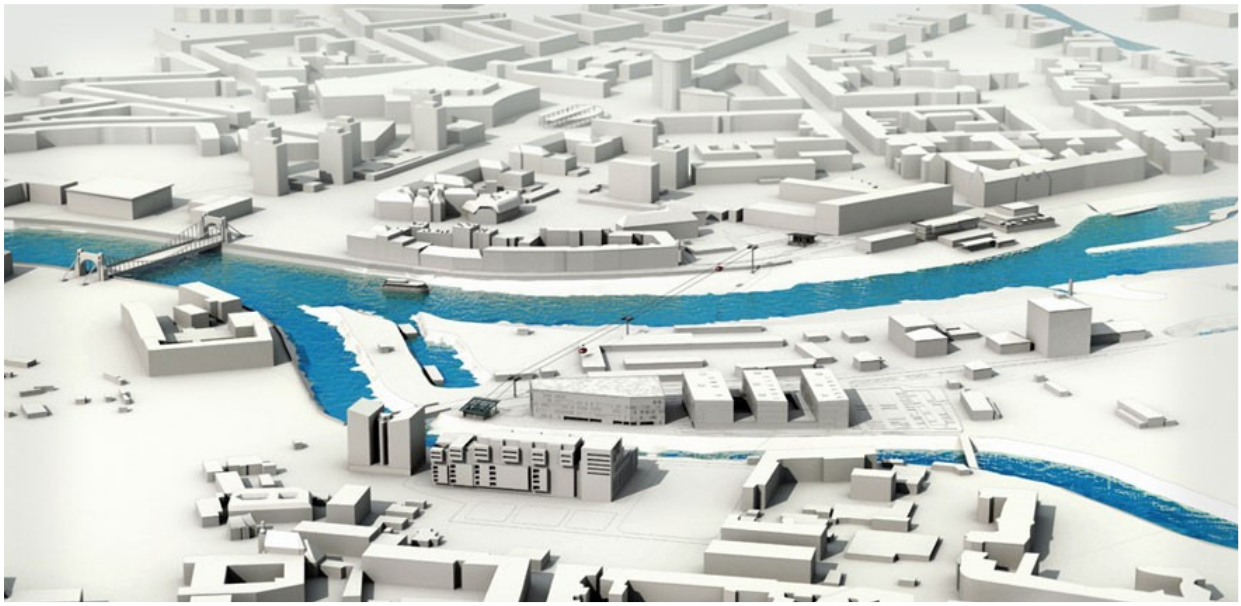
- Museum is located in Curitiba. The project of the building uses a structure which contradicts the laws of gravity and which was to appear as the one of the symbols of the city. However, for the majority of the inhabitants the building resembles the eye and therefore is known as the Museum of the eye.

- The building has many of the characteristics that inspired me while creating the form of the mueum building. One of which is an idea of a sculptural building with a simple geometric form of basic and curved solid. What is more, large surfaces made of white concrete underline the beauty of the form.

- Similarly, the projects uses the idea of eliminating the lower part of the building. Creating a tunnel in the basement that connects the two buildings. This formal idea succeeds to make a building appear lighter and lets the form look serene.

The Project

Location and landscape disposition



In accordance with the adopted idea, all the solid of the building will develop along the quay of the River Oława. The buildings form one string, in vast parts will be enclosed from the side of the River. In accordance with the guidelines set out in the draft plan of the local community, along the quay is designed infrastructure for the proposed of new Geocentrum building of Wroclaw University of technology. In the direction of the Oławski bridge new strenghtening wall is to be built so as to reach to a higher level extending over part of the designed objects.

What is more, new boulevard creating an attractive recreational area for inhabitants will be designed with a framework made by landscaping, railings and balustrades.

As far as the traffic is concerned, design takes into account availability and limitations of The main building of museum stretches on both sides of the old bay and opens towards the Grunwaldzki Bridge providing an attractive perspective from inside of the building. Entrance to the Museum building was designed from the South, where is located also customer support.

The effect of these circumstances is the building, which is to emphasise the axes bounding scenic opening directing the façade towards the historic part of the city.
The project is designed so that not to neglect the environment existing on the parcel. The river old bay was arranged in the way that the a canoe traffic is allowed under the building. While the water running below creates pristine intimate atmosphere with a leasure space for visitors and pedestrians. Moreover, before the building a recreational square was designed which can also be used as outdoor exhibition space and the organization of cultural events and entertainment. This open public space finds its continuation along the quay.

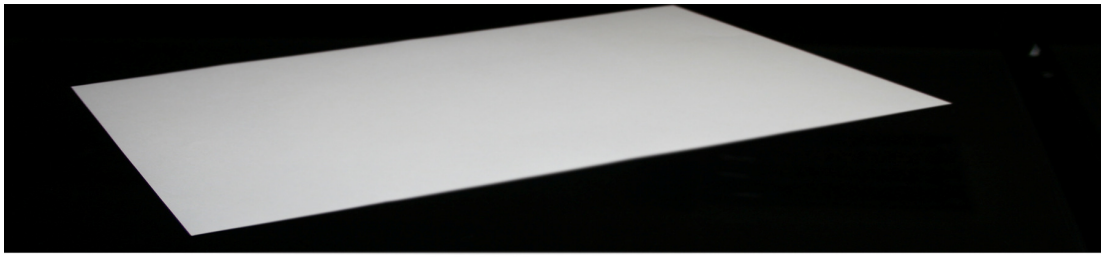
Programme

The Project is designed to let the fluid movement of visitors without conflict with the part of the administrative and technical support. The main influx of visitors, from the side of the street is held by the main entrance, located in the shaped façade at the southern side.
The entrance space is giving unusual sensations using the aesthetic play of water and light inside the building. After the entry of the visitors is driven directly to **the main lobby**. The shaping of the lobby building allows easy identification and selection of routes of the sightseeing. Here one can find the information point, and cloakroom.
The Entrance is connected to upper and lover floors with a system of staircases and openings allowing visual contact. The zero floor is devided into two separate solids connected together at the basement and first floor level. Through the cut in the floor an impression of the resulting communications space Museum is evoked. The Interior of the building is connected directly with the representative Hall of the exposition located at the first floor. Here workshops, events, important artistic events related to the aret are to be organised.
Two levels of basement and first floors have been designed as open spaces, providing for the possibility of almost free decor. Without limiting the possibilities and combinations of directions of sightseeing. This provides flexibility in choosing how the visitor and the transition time of the exhibition.
At **the exhibition** you can reach levels using a representative staircase. The mentioned staircase is located in the central part of the building. While goods can be transported directly via an escalator works of art or other objects on the uppermost storey warehouse or at other levels of the Conference Centre.
The main auditorium is the place where they may be held, lectures, discussions, conferences. This unique space is located on level 01 designed for ninetyguests plus four people with disabilities.
The administrative part is located on the first floor connected directly to the part of the open office for ok. fifteen employees. One can find here also separate rooms for executives and accounting.

By providing a connection with water interior space with openigs provide opportunities for relaxation with a place of rest for the eyes and feet of visitors.
On each floor there is a scope of possibilities to arrange happenings or workshops for artists.

The Idea

The general assumptions, consider the form of the museum building as a sculptural structure opened to the river and visually connecting green spaces with the panorama of the urban tissue. However the unique shape does not interfere with the original site disposition and allows the water towet to be still vertically dominating element in the riverscape.



The project marks strong the relationship between the wter and the building. While the museum function serves as a space for artistic activities, place of contemplation, metaphysical experiences.
Indeed,the location site evokes strong visual impact for the protruding and well exposed area.

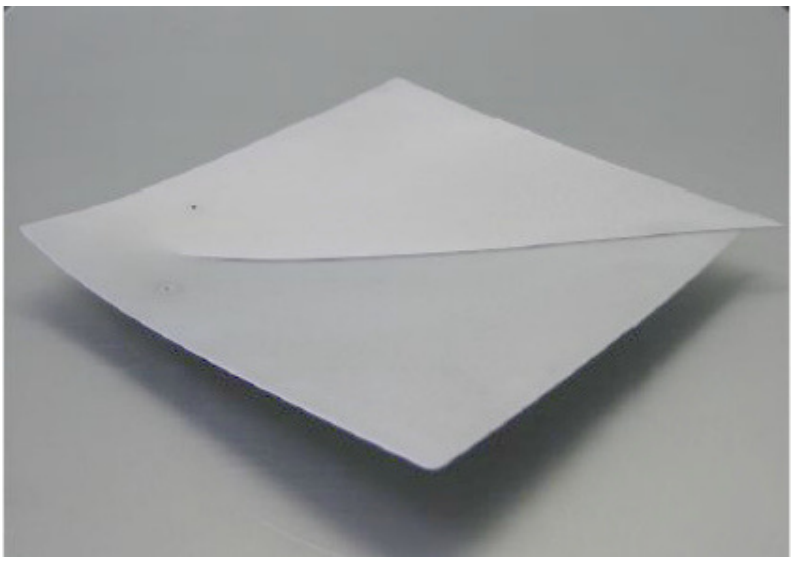


Image μ κ – Centro de mesa Souto Moura

The above considerations have become the cornerstone, to seek the extraordinary form of the Museum in the city. The shape reflects the nature of the sheet of paper touched by the wind. The Inspiration for the solid building became the Tadao Ando's museum martime form that allows an aesthetic connection of nature and the city element.
As a simple, flat square piece of paper the building form comes to be a distinctive element still not disturbing the dominating role of the water tower building. The project of museum gave a two dimensional layout of the parcel. First is a relaxation place for canoe and leasure. Second is active artistic incubator for contemplation of art. They coexist together, creating an unique "semi urban"space that acts as a cultural magnet.
The Structure naturally co-creates neighborhood and gives not only a word of memory and history, but also goes in front of urban actions in public space. Consequently, elegant idea is functions as another square of the city connected the newly designed Social Square .

Materials

Making decisions concerning building materials I considered historical and natural references as well as the scale of the Museum. Designed building uses a steel frame construction that forms a stiff element of light contrete walls. Wall light covering is independent from the structure, enabling any installation to be filled in the remaining space.

As a contrast to compact, monolithic exterior walls, the membrane covering is chosen to cover the blow shaped form of roofing creating an aesthetic half transparent element connecting the interior with the below water. Here, one can observe a number of shadows and play on light resulting from the layout of the building's interior.

The building appears as a light concrete pure form with a white membrane covering. Between the surface of the internal guards and the wall of the building one can find cornice ceilings. Glazed roof is based on steel construction.

The buildings will be equipped with all necessary for its functioning installations, with specific reference to installation allowing for the reduction of energy consumption. It is planned to equip the terrain vertical ground heat exchangers working in heat pumps.

Construction

Structure

Building structure based on a steel frame construction that allows wide span of the roof beems stretching above the water canal. For the below part of the building a membrain tensile material has been used, fastened on the system of railings allawing the tension of the element.

Roof

Roofing is based on steel beams covered with paving and partially glazing elements. For the reason the space is opened for the visitors the appropriate paving conctete laver has been chosen.

Floors

Exterior pavement is designed as pre-fabricated concrete slabs intersected by wooden beams.
Interior floors use MMA which is monolithic floor coatings appearing as unfragmented one piece. Using a preblended ready to use, fibre suppressant topping for concrete with selected mineral mixtures.

Walls

Wall light covering is independent from the structure, enabling any installation to be filled in the remaining space.
Interior walls are based on fastened to structure painted white OSB elements as well as MDF slabs when needed.

Balance of the area

Surface of the building 1720 m2

Summary of rooms

Nr	Room
0.1	Vestibule
0.2	Entrance Hall
0.3	Reception and Infromation, Cloak room
0.4	Elevators
0.6	Toilette
0.7	Toilette
0.8	Social room
0.9	Temporary exhibition
0.10	Exhibition Chamber
-1.1	Social room
-1.2	Server room
-1.3	Washing room
-1.4	Technical room
-1.5	Archive
-1.6	Communication
-1.7	Technical room
-1.8	Magazine
-1.9	Cloak room

-1.10	Cloak room
-1.12	Magazine
-1.13	Magazine
-1.14	Server room
-1.15	Server room
1.1	Archieve room
1.2	Office
1.3	Sectretariat
1.4	Resting room
1.5	Communication
1.6	Toilette
1.8	Magazine of the cafe
1.9	cafe
1.10	Exchibition chamber
1.11	Lecture Hall

Conclusion

The design involved rehabilitation of public space with the design of unique museum building at the city scape.

In concept planning I included definition of boulevard as well as exposure of museum building by maintaining dominating role od Wather Tower. In my project there have also been made assumptions about the introduction of park and attractive recreational spaces for residents and tourists.

Project is strictly connected with the City Hall planning ideals for the next ten years. This include rehabilitation of social square and extention of University campus buildings. Designed space serves as magnet point of Wrocław city through the creation of multifunctional public space and the introduction of diverse program. In my project I wanted to ensure the availability of the boulevard in this area and the quay of the river for disabled people. But still creating a diversified space where possible providing necessary space intended for pedestrians and bicycle paths.

In conclusion strengthening of this forgotten wast space in the city centre with the surrounding Riverbank in outcome came with an extremely attractive spaces for the city.

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