# KOMÁRNO-KOMÁROM



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### **1. HISTORY**

### 1.1. DANUBE AND THE ORIGIN AND DEVELOPMENT OF KOMÁRNO AND KOMÁROM

The Danube region in Slovakia extends along the 172-kilometer section of the Danube, which forms the natural border of this country. We are talking about the territory situated between Bratislava and Štúrovo. The historical significance of the Danube formed the entire region, inhabited since the early Stone Age.

The geographical conditions along the Danube have influenced the emergence of unique settlements characterized by multicultural diversity and significant history. The strategic role of the Danube River, which is the link between Europe's wider area and the main trade route, has in the past manifested itself particularly in the area of culture and trade. When exploring the region in Slovakia, it is necessary to take into account its international context, with an emphasis on the connection of surrounding countries along the Danube.

Komárno (Komárom, Komoran, Serbian Komoran, Camarum) is one of the oldest settlements in the Carpathian Basin and was inhabited in Neolithic. The development of this strategic territory on the Danube has already been influenced by the Romans who built the Limes Romanus Strength Line along the Danube, and the military camp Celemantia (Leanyvar in Iža, 7km from Komárno), which was related to the Brigitio military camp on the Hungarian side of the Danube. Because Celemantia (or according to the Komárno inhabitants Girl's Castle) was associated with Brigitte, it is of particular importance. It was preserved as the only Roman fort on the left bank of the Danube. The Komárno strongholds began to build during the reign of Emperor Traian and were completed during the reign of Emperor Hadrian.

In the early Middle Ages the territory of Komárno was dominated by Avars, who had established the seat of Tudunata and left behind tracks - 8 burials with a lot of findings. After the collapse of the Avarian Empire, the pressure of the Moravian-Slavic tribes forced to conquer the unoccupied territories of Franks.

### 1.2. KOMÁRNO/KOMÁROM – HISTORY OF THE FOREGONE CENTURIES

In the 9th Century this territory was occupied by the Hungarian tribes. They built a castle called Kumarum - named after the Magyars coming from the Kuma river, who settled the territory of Komárno. During the 10th Century, they created a fortified, fenced place at the confluence of the Danube and the Váh, which at the time of the formation of the Hungarian state became the center of the Komárno district. At the headquarters of the Komárno castle, which lay at the crossroads of important land and waterways, a settlement with the same name was established. In the first lists, the castle and settlement are mentioned under the names Camarum (1075), Kamarn (1218), Camarun (1268), Kamar (1283), Camaron, Comaron (in several documents from 1372 to 1498). In 1265 the town of Komárno was awarded the title of the royal town by Belo IVth, confirming the essential importance of the Komárno fortress in the fight against the Tatars. Following the liberation of Europe during the reign of Mathias Korvin, the city quickly developed and became the seaport of the Royal Danube Fleet and headquarters of the Royal Salt Chamber.

During the Turkish expansion in the 16th Century, Komárno reached the border of the Habsburg and Ottoman empires and again gained strategic importance. For this reason, the castle was rebuilt into a new fortress (the "Old Fortress" was created), which resulted in the demolition of the town to create a fortress preposition with a water ditch that separated the fortress from the city. After the repeated Turkish attacks and the collapse of the fortress in Nové Zámky, it was necessary to build a "New Fortress". The fortress complex, which was created by the rebuilding of the previous fortress,

became the most advanced fortress in Central Europe and was able to withstand the Turkish occupation until their defeat in the 19th Century.

The advantageous location of the city on the Danube, the main trade route, has stimulated the development of trade, especially with salt, wine and wood. The significant development of the town caused Komárno in the 18th Century to become the most populous city on the territory of presentday Slovakia and the fifth largest city on the territory of Hungary. It was necessary to organize the urban structure of the city. The basis for the systems of fork-fed streets were historical communications that moved from the fort to the city gates.



Fig. 1: Historical guide of the town and fortress of Komárno from the 17th century. [28]



Fig. 2-3: Historical guide of the town of Komárno from the 17th century. [28]

At that time, public and church buildings in the city (such as the Trinitars Monastery building, the Judeo House, the reconstruction of St. Andrew's Church, and the construction of an Orthodox church) began to be intentionally built, which in 1745 gave the city the title of the free royal city by Queen Mary Terézia. In the past, several natural disasters have occurred in Komárno, but the Danube metropolis has remained an important center of trade and crafts.

At the time of the Napoleonic Wars, attention was once again drawn to the impenetrable fortress of Komárno and its strategic location. The vast fortress system became the last refuge of the emperor and under his rule reached a capacity of up to 200,000 soldiers [28].



The revolutionary years of 1848 and 1849 have also been recorded in the history of Komárno as years of freedom struggle. In these years the Komárno Fortress was able to withstand the attacks of two world powers - Austrian and Russian.

The development of the Komárno industry stimulated the further development of the city: iron bridges were built over the Danube and Váh, the yard and the port, and the settlement of Új Szőny - Komárom was connected, giving the city room for further development. The industry has ensured the prosperity of the city, which was reflected in the construction of palaces and fine cafes (Káveház Grand). An important symbol and witness of the events in Komárno since the breakup of Austria - Hungary, the connection of Komárno to Czechoslovakia, later to Hungary and again to Czechoslovakia is the Alžbeta Bridge. This historic bridge was destroyed and later rebuilt after the 2nd world war. For the city, it has an immense value as an artifact connecting past with the present.

After the First World War the parts of the city on the right bank of the Danube that were left to Hungary retained the name Komárom and were subsequently developed according to a new regulation plan. This involved the creation of a new town centre with a large main square and institutional buildings, built mainly in the Neo-Baroque style. Apart from the years 1938-1945, when Komárno belonged to Hungary, in the greater part of the 20th century the two towns developed independently from each other, although thanks to the Elisabeth Bridge they were in closer contact than most of the other settlements facing each other on the Slovak-Hungarian section of the Danube.



Fig. 4-5: Historical maps of the city from the century [28]

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### 2. SPACE

### 2.1. LOCATION AND SETTLEMENT NETWORK

Komárno lies at the confluence of the rivers Danube and Váh in the eastern part of the Žitný ostrov (Wheat island). The specific landscape character of the city and its surroundings is formed by the Danube and Váh rivers, by the flat Danube Lowland and Danube Plain, and the fertile soils, which determine the character of the landscape structure, with dominance of agricultural – arable land. The area has the warmest and driest climate in Slovakia, so wheat, sugar beets, sweet corn, vegetables, fruit and vine are grown here. The forestation of the area is low, forests are found mainly around the main water courses. The floodplain forests with a specific fauna and flora of the river, lake or wetland communities are characterized by the high ecological values and they are the most important localities of nature protection. In addition, there are meadow communities of salt marshes and drifting sands. Within the region of Komárno we can find 35 law-protected natural reservations and a system of bird protection areas (NATURA 2000).

From the point of view of the territorial division of the Slovak Republic, the city of Komárno belongs to the Nitra region and to the district of Komárno. Komárno currently functions as a district town. The town of Komárno has the large cadastral area in Slovakia. It merges with nine municipalities: Martovce, Vrbová nad Váhom, Čalovec, Kameničná, Zlatná na Ostrove, Iža, Chotín, Svätý Peter, Hurbanovo. Several urban areas with rural character include Čerhát, Ďulov Dvor, Hadovce, Kava, Lándor, Malá Iža, Malý Harčáš, Nová Osada, Nová Stráž, Pavel, Veľký Harčáš.

Within the territorial administrative system of Hungary, Komárom belongs to Komárom-Esztergom County, being its third largest city. At the same time, it is the seat of Komárom District comprising nine municipalities and covering an area of about 378 km2. Because of the industrial park established in the western outskirts of the city, it has also a relatively wide catchment area. As in Komárno, the flood plain areas of Komárom, specifically the Saint Paul Island and the Szőnyi Islands, as well as the neighbouring shores on the right bank, are part of the Natura 2000 nature protection areas.

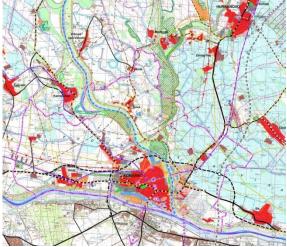


Fig. 6: Komárno and surrounding settlements [7]



For the development strategy of the town of Komárno, the national planning documentation -"The Territorial Development Concept of Slovakia 2001", which defines the main directions of spatial development of Slovakia, both in national and international contexts, is decisive.

From the above-mentioned concepts of the national and regional (Nitra region) planning documentation meaning, it is essential to define the meaning of Komárno in the settlement hierarchical system. Komárno represents a tertiary settlement center with economic, service and social activities of regional, supraregional and national importance. The town of Komárno is an important part of:

- settlement development axis Nové Zámky Komárno, as second level center,
- settlement development axis Bratislava Dunajská Streda –Komárno Štúrovo, as second level center,
- Ponitrian development axis, Bánovce nad Bebravou Topoľčany Nitra Nové Zámky Komárno. As second level center.

The international importance of Komárno is also essential. Its ties to the city of Komárom in Hungary, with which it constitutes twin city. Their mutual co-operation has the potential especially in the field of tourism, which is mainly linked to the preserved fortress system, but also the overall cultural and natural potential of these cities and their backgrounds. The location on the Danube and the shipping tradition predetermine the area as a major distribution center in Central Europe.

In the international context of tourism development as well as the development of the logistics center, Komárno also links the Hungarian regions of Central Transdanubia with the towns of Komárom - Esztergom, Fejér, Veszprém and Western Transdanubia with Györ - Moson - Sopron, Vas and Zala.

### 2.2. ACCESSIBILITY

The strategic location of Komárno and Komárom had an advantage in the past. In particular, their position on waterways and terrestrial routes, their proximity to Vienna and Budapest. They represented the focal points of the political, economic and cultural life of Hungary and Austria-Hungary monarchy.

Even today, the distance and accessibility of the metropolitan towns of two independent states Hungary and Austria - Budapest and Vienna are equally important for Komárno and Komárom:

- Budapest 95 km, Vienna 168 km.
- These metropoles represent important poles of economic development with international importance. Komárno and Komárom are also close to Gyor from Komárno it is only 46 km.
- From Slovakia's point of view, for Komárno is an important link to the regional center and the capital: Nitra 68.5 km, Bratislava 109 km.
- Its location to the poles of economic development of wider regional importance: Dunajska Streda 53 km, Nové Zámky 32 km.

Proximity of Komárno to the poles of regional and international importance represents a significant potential for the city for future development. These ties determine that the city's citizens are already able to meet their needs. The quality of these links depends not only on the distance of Komárno from important metropolises and the outskirts of economic development, but also on the quality of transport connections.

The city of Komárno enjoys a good location due to the road, rail and waterway system. The territory of the city lies on Europe's major communication axes - on European multi-modal corridors, which are among the major communication axes in Europe. It is about:

- corridor no. IV. represents rail and combined transport on the Berlin / Nürnberg Prague-Kuty-Bratislava-Nové Zámky / Komárno-Štúrovo-Budapest route),
- corridor no. VII. represents a waterway the Danube with a harbor directly in Komárno.

The city's communication system is organized via the category of I and II roads. connected with its surroundings as well as with poles of economic development - regional, interregional importance and with the capital city of Bratislava. These are the following communications:

- route I / 63 Bratislava Komárno Štúrovo,
- route I / 64 Nitra Nové Zámky Komárno the Republic of Hungary, route II. Class II / 573
  Komárno Kollárovo Šaľa.

15 km south of the city on the territory of the Hungarian Republic, the M1 - Vienna - Budapest highway crosses the supraregional transport route. It fulfills simultaneously the function of European roads E 60 and E 75. The M1 motorway is of great importance for connecting Komárno and Komárom with Budapest and Vienna, as well as with Bratislava. Moreover, a new road bridge connecting the two cities is under construction and is expected to be completed by the autumn of 2019. It will lead through the western parts of the two cities in order to relieve the traffic burden on the Elisabeth Bridge. While the new bridge and its access roads will bypass the residential areas of the two cities, according to the planners and the municipal representatives it will affect not only the traffic between the two settlements but also the economic potential of their surrounding regions.

Komárno is a crossroads of 4 railway lines, namely: in the direction of Nové Zámky. Kollárovo, Bratislava-Dunajská Streda and Komárom in Hungary. The most important railway line is the Komárno - Nové Zámky route, due to its link to the European rail system. Cross-border contact with the Republic of Hungary is via railroad via a single railway bridge.

The water transport in Komárno and Komárom is based on the Danube magistral waterway E80 with a harbors in the bouth towns themselves. The harbors in Komárno and Komárom are connected to the trans-European Rhine-Main river-Mohan-Danube, which forms the link between the North Sea and the Black Sea.

Air transport is linked to airports located more than 100 km away - in Bratislava and Budapest.

There are no special bicycle routes built in the built-up area of Komárno. They are bound to the river Váh - towards Kollarovo and the Danube River in the east. They are part of the Danube Cycle Route.



Fig. 7: Project of the road system in Komátno and Komárom (Proposal of Master Plan in Komárno) [7]



Walking routes are linked to land transport corridors except the pedestrian zone in the historical core. The city of Komárno operates public transport, which is secured by 7 bus lines. In Komárom, public transport is secured by 4 bus lines operated by Arriva Hungary. In addition, the local railway line has two stops within the city.

### 2.3. URBAN STRUCTURE AND LAND USE

The town of Komárno is a typical example of the city of medium size (36 thousand inhabitants). From the point of view of the character of the urban structure, the city can be divided into the historical core, the territory from the period of functionalistic construction - the planned construction of the era of socialism (the industrial area of the shipyard, the mass housing estates, the isolated facilities of civic amenities) and the area with the individual family houses or with the characteristic rural development of the municipalities, which are part of the Komárno town. The character of the city was significantly influenced in the past by its commercial and later defensive function, in the period of socialism, by industrialization.

Komárno was historically founded on the confluence of the Danube and Váh. The formation of the city influenced precisely these rivers, to which later the fortress (Old and New) and the Palatin line of the fortifications were joined. It creates a semicircular splint between the rivers, which clearly defines the compactly built area of Komárno. The main knot of the city is the historical center - the area of the urban monument zone. It represents a substantial part of the central urban area with a historical development that was formed around the main streets - historic Y-shaped access routes. The ground plan of the Komárno historical core was influenced by several factors:

- Danube and Váh River,
- the development of the fortification system,
- the access to the Fortress.

During the development, the area, which was scattered along the historical roads, was gradually thickened and created a compact block building consisting of a single-storey building of craft-agriculture houses. They were oriented to the depth of the plots. Later on, this homogeneous structure began to enrich the three-wings objects of the noble cure, and then in the 18th and particular at the end of the 19th Century, the mosque houses, public buildings, as well as the sacral buildings, were added to them.

Komárno as the town connected with the Danube, is now paradoxically characterized by the inaccessibility of its urban structure to the most prominent space of the city, to the whole Danube bank and to Váh in some part of it. This situation started the development of the port and the subsequent industrial production from the turn of the centuries. The coastal park - Darányi and eastern part of Elizabeth Island - fell victim to this expansion. During the inter-war period, the port extended along the entire Danube riverbank. This was reflected in the gradual degradation of the city's core. It is worth mentioning the dramatic change in the character of the city's urban structure during the 1960s and 1980s. The process of transformation started with the construction of a direct road from the Danube bridging. The large-scale clearage of the original structure has left room for the construction of large residential complexes and panel housing estates. From the original mostly single-storey compact building, only the fragments and solitaires left behind the new city circuit - the orthodox church, three synagogues, the town water reservoir, the church of Rosalia, a cemetery system, and a hospital complex. Today, the city is divided by first class roads leading to the bridge to the Hungarian town of Komárom and communication in the direction of Bratislava and Štúrovo.

From a general perspective, the city's current urban structure can be characterized by growth and heterogeneity. The current differentiated urban structure of the city has emerged as a result of long-term development. For Komárno the characteristic compactness of the city is due to the fact that the

city's extensive development was limited by the 19th Century external fortification system. Beyond its borders, the area tends to spill into the landscape, but to a limited extent.

In the inner city there are more extensive green open areas - around the New Fortress, as well as around the ring of the outer fortification. They represent a remnant of naturally undeveloped territories before the defense system. In addition to the listed green areas, the city has extensive cemeteries, several smaller parks and areas arround schools, cultural facilities, and a hospital. The functionalist city is characterized by a loose form of housing development or facilities that have disrupted the original compact historical structure. It is worth mentioning the considerable amount of residual areas around the transport routes and railways, or the areas of former brownfield sites that are not currently fully utilized. Especially valuable is the natural environment directly in contact with the city, especially along the Váh river and partly around the Danube in the Elizabeth Island.



Fig. 8-9: Change of a large part of the Urbansian structure. Comparison of 1950 and 2018, podľa © GEODIS SLOVAKIA, s.r.o. a Historické LMS [25]

Komárno's distinctive feature is its connection to the city of Komárom on the right side of the Danube River. They represent, for the Danube area, a characteristic example of the city - the town of twin towns on the two banks of the river. Komárno is the representative of the most important part.



Fig. 9: Map of Komárom with the attached areas on the right bank from 1907. Source: Borovszky Magyarország vármegyéi és városai, Komárom vármegye és Komárom, 1907. Fig. 10: The central part of Komárom (source: Google Maps).

The urban structure of Komárom evolved primarily during the 20th century, although in several parts it follows the older spatial patterns of the settlements attached to the city. Before the end of the 19th century, on the right bank of the Danube opposite the old town of Komárom, Új-Szőny formed a separate village surrounded by manors and a chain of military fortresses that were part of Komárom's defensive system. Its development was stimulated by the opening of the railway line to



Vienna in 1856 and especially by the line's extension to Budapest in 1884, which resulted in the settlement of railway employees and their families in the village. After the opening of the Elisabeth Bridge in 1892, even more people moved to the righ bank, and following negotiations in 1896 Új-Szőny was attached to Komárom and was renamed Komárom-New Town (Komárom Újváros). After the First World War it remained part of Hungary under the old name Komárom, and the local government made great efforts to develop it into a fully-fledged city with an urban character.

In the mid-war period, the in-built area of Komárom was enclosed between the three military fortresses of the right bank (from west to east: the Monostori, the Igmándi and the Csillag, or Star Fortress) that together formed a triangle around the city. The Igmándi Road leading from the bridgehead toward south and touching the Igmándi Fortress formed the north-south axis of the city, whereas the today's Klapka György Road and Mártírok Road formed its east-western axis. The crossing of the two axes creates a clear-cut spatial structure dividing the city centre into four parts. From the 1920s onwards it was primarily the area on the east from the Igmándi Road, around the Mártírok Road, that was parcelled into a grid street network and where the main construction activity took place. This involved the creation of a large representative main square opening from the Mártírok Road which was to accommodate the town hall and the three-storey building of the elementary school. Today, this more densely built area is bordered by the Rüdiger Lake on the south, the Csillag housing estate on the east and a green strip of recreational facilities (the Jókai Park, the thermal spa and the sports complex) on the north. Although the latter are located close to the riverbank, they are cut off from the Danube because of the railroad. This is true for the entire inner city from which the river is accessible only through the access road of the Elisabeth Bridge and the overpass of the railroad station.

After the Second World War, the most significant changes affecting the urban structure were the construction of housing estates and the attachment of Szőny to Komárom in 1977. During the Socialist era housing estates were built in various parts of the city, most notably between the Jókai Square and the Rüdiger Bridge (Tópart Estate), between the Csokonai Vitéz Street and the Klapka György Street, and at the eastern edge of the inner city (Csillag Estate). The annexation of the previously separate township of Szőny resulted in the eastward expansion of Komárom. Today Szőny is the oldest and historically the most significant of the settlements composing the city, yet it has a complex spatial structure: besides the old village core it has a younger and much larger suburb-like residential area and a housing estate (the MOLAJ Estate) on its eastern outskirts, originally built for the workers of the adjacent oil plant.



Fig. 11: Koppánymonostor with the Saint Paul Island on the north and the industrial park on its south-east. Fig. 12: Szőny, or Ószőny with the oil plant on its eastern edge.

On the opposite side of the inner city, west from the centre and the Monostori Fortress lies the suburb of Koppánymonostor, attached to Komárom in two phases in 1932 and 1952. From the 1980s onwards this area has witnessed a large-scale influx of more affluent new residents as a result of which today it is regarded as a prestigious suburb of the city. To a large extent it owes its appeal to its green surroundings and especially to the groves of its riverbank and the adjacent Saint Paul Island.

On the other hand, however, on the south it is borderd by the city's large industrial park and on the east it will be enclosed by the new Danube bridge and its access roads. Altogether, Koppánymonostor seems to be somewhat isolated from the rest of the city, but this might also play part in its appeal, its image as a calm garden city.

The industrial park, located in the western part of the city between Koppánymonostor and the Ácsi Road, constitutes the hub of the city's economy. Since its opening in the early 2000s it has continually expanded and is about to grow in the upcoming years, too, what might cause conflicts with the residents of Koppánymonostor. It attracts work force from relatively distant areas and its infrastructural needs were likely among the reasons behind the construction of the new Danube bridge. This also shows that the industrial park has a wide-ranging impact on the life and the overall spatial development of the city.



Fig . 13: Urban fabric of Komárno – Komárom from the beginning of the 20 century [28] Fig . 14: Urban fabric of Komárno – Komárom from the beginning of the 21 century.(Students work of STU)

### Specific features of the cultural heritage of Komárno

The existing urban structure of Komárno can be divided into several characteristic types of structures, which also have their unmistakable identity. The city's urban structure can clearly define areas of a certain nature: the fortification system, the historical core, industrial areas associated with the shipbuilding industry and the port, the recreation areas of Elizabeth Island and the dead arms of the Váh. For Komárno, his identification features are based on his historical development. They are: a fort with a unique fortification; the characteristic technical and transport infrastructure associated with the function of the shipyard; a unique architectural language - "regionalism" connecting Slovak and Hungarian folk and national architecture.

Among the most compelling elements of the city include:

- The fortification system.
- The historic core of the city.
- The Danube and Váh Stream with preserved accompanying greenery.
- Elizabeth Island.
- The most significant highlight is the tower of the Roman Catholic Church of St. Andrew.

Komárno also has a distinctive exterior image of the city. Valuable are views of its original urbanized environment, especially the following views:

- from the bridge of Váh,



- from the border crossing of Komárom to Komárno,
- from Elizabeth Island,
- from the New Fortress to the historical core

### Specific features of the cultural heritage of Komárom

Due to their different historical development, the tangible cultural heritage in Komárom differs in many respects from that of Komárno. It shares with the latter elements of the imposing defensive system of military fortresses which are an important attraction of the city. The Monostori Fortress can be even regarded as one of its landmarks.

As for the historical and architectural value of the urban tissue, however, Komárom cannot be compared with the centuries-old core of Komárno. In the former, most of the old buildings were built during the mid-war period, although they illustrate a remarkable chapter in Central-European architectural history, the official Neo-Baroque style of the early Horthy regime. They are primarily institutional and governmental buildings, such as the town hall, the elementary school, the district court and the police headquarters. On the other hand, the Heart of Jesus parish church completed in 1937 was designed in a modernist style inspired by the Italian Novecento movement popular in ecclesiastical commissions in Hungary in the 1930-40s.

Szőny retained the spatial structure of its old village core, where the most important heritage objects are the Catholic and Reformed churches, the Neo-Baroque Solymosi-Gyürky mansion and the baroque granary. Beyond these, Szőny is widely known as the former site of the Roman town of Brigetio. The relics of the Roman past, such as the artefacts displayed in the municipal museum and the site of the ecavations in Szőny are key elements of the local heritage discourse and in the city's touristic visions.

### Specific features of the natural heritage of Komárno

The specific natural elements of the city and the surroundings of Komárno include the Danube and Váh rivers, their confluence creating floodplain forests and accompanying water areas, wetlands and marshlands, which are part of the EU Natura 2000 protected area. There are several elements of supraregional, regional and local territorial ecosystem stability system (TSES).

The biocentres include:

- Elements of the supraregional TESA APC
- Elements of regional ÚSES Biotherm Čerhát, Biohovor Komárno Tehelňa, Biocentrum Lándor, Biocentra Kava I a Kava II, Biocentrum Ďulov Dvor
- Bio-corridors include:
- Biocorodors of supraregional significance NBk 1 Danube, NBk 4 Stream of Váh and Vázske Dunaje
- Biocorodors of regional importance RBk 11 River Nitra, RBk 13 Veľký lán, RBk 10 Okoličianska wetland channel Kolárovo-Kameničná, RBk 22 Komárňanský canal and Čalovský canal, RBk 24 Pavelský canal Nová Stráž Divina, RBk 26 Martovská mokrad Patinský kanál, RBk 25 Hurbanov channel

The task of bio-corridors is to link the individual biocentres, thus enabling the migration and exchange of genetic information of living organisms and their communities. In the cadastral area of Komárno there are several small protected areas: 1 National Nature Reserve (APR) - Apalian Island, 2 nature reserves (PR) - Komocin and Vrbina, as well as 1 protected area (CHA) - Strazsky park. On the territory of the town of Komárno, on the basis of the Decree of the Ministry of the Environment of the Slovak Republic no. 3 / 2004-5.1 of July 14, 2004, there are 5 proposed sites of European significance (IEV): Komarňanské údolí, Pri Orechov rad, Dolnovážské luhy, Pavelské slanisko and

Alúvium of Stara Nitra. This set of protected areas is intended to protect the most rare and most endangered species of wild plants, wildlife and natural habitats occurring in the territory of the European Union and, through the protection of those species and habitats, to ensure the conservation of biodiversity across the European Union.

In the territory of the town of Komárno there are 67 declared protected trees, which are located on both sides of the street. Platan alley on Elizabeth Island. The subject of protection is rare, platanus javorolists - Platanus hispanica, which have dendrobiological, ecostabilizing, historical significance as well as their high cultural, aesthetic, natural value. These are 200 year old specimens of the Javorolist platyum with a height of 30-40 meters.

### 2.4. THE ROLE OF THE DANUBE

The Danube River forms the character of the Danubian Lowland landscape, the unique character of the town of Komárno, its economic development or its strategic defensive meaning. The city of Komárno has been a significant business, economic and cultural center in the past. Now is seat of a regional and supraregional (cross-border) meaning that has naturally evolved thanks to its strategic location - the confluence of the Danube and Váh rivers. The Danube also affected the character of the city's urban structure. Together with the river Vah it created the natural boundaries of the city. The strategic location on the river confluence has prompted the construction of a system of fortification of pan-European significance. The Danube and Váh as transport arteries in the past have been a major factor in the development of business and thus the prosperity of the city and the development of its urban fabric.

The Danube had and has had negative impacts on the urban structure of the city. These are mainly related to the industrialization period, when the port facilities along the Danube have prevented the city from connecting with its most valuable territory.

The relationship between Komárno and the Danube can therefore be characterized in two poles. Danube dividing:

- as a dungeon before the enemy (limes romanum, fortification system ...) as a border between states and cities - which is often a rupture of natural ties and codevelopment, as well as an ugly natural co-operation,
- as a source of barrier between its economic use and its natural connection with the city.

Danube joining:

- the cultures, peoples, economy ...
- The special feature of Komárno is its connection with Komárom on the right side of the river.
  Komárno Komárom thus represent a distinctive example for the Danube area the city of twins on the two banks of the river. Komárno is the representative of the most important part.

The Danube is thus: life-giving - promoting prosperity and development, promoting the quality of life and the richness of activities, but also threatening - its meaning "boundaries" or cyclical floods.





#### Fig .15: Protected areas in Komárno – in the city and in its surounding [7]

The Danube, Váh and other rivers - the Little Danube, Nitra and Žitava, a system of living and dead arms, inundation, wetlands, and floodplain forests form the natural framework of Komárno and its wider, planar environment. River floodplains, especially the Danube itself, form an extensive flood plain with a width of up to 30 km.

Thanks to the quality land, mentioned geomorphology and favorable climate, the surroundings of Komárno have excellent conditions for agricultural use of the landscape. "The area has a very long vegetation period, which allows the cultivation of high-demanding crops". The system of surface flows, old and dead arms with forest stands and cultural steppe form a characteristic outlook of the present landscape. The nature of the landscape and its functional use have changed significantly.



Fig.16: Image of city Komárno (Students work FA STU Bratislava)

In the future development of the city it is therefore appropriate to preserve and promote the characteristic image of the city. Due to the significant phenomenon of the Danube and the Váh, urban planning concepts should be developed in relation to waterfront areas - which would underline the importance of the city on the Danube. Waterfront areas offer the optimal conditions for the creation of cultivated public spaces for free time activities, meetings, leisure, culture and sport activities; form the ideal conditions for the urban revitalization and redevelopment of whole complexes alongside the river banks (1). Moreover the tactil connection of inhabitants with water elements is unique. The purifying effect of water has great impact on human mental and emotional health. Compared to other environments, aquatic environment has more positive influences on human well-being (2).

On the right bank the shores of the Danube are less frequented in the riverfront areas of the inner city, and instead the local inhabitants use more intensely the riverbank at the green areas of Szőny and Koppánymonostor.

Regarding the future perspectives of water recreation, it is an essential task to harmonize the development strategies of the two cities.

### **3. CULTURAL CAPITAL AND HERITAGE**

### 3.1. GENERAL DESCRIPTION TANGIBLE HERITAGE

The project DANUrB focuses on the abandoned cultural heritage with potential and its integration into the interconnected system of "stories along the Danube". The cultural and historical potential has been progressively identified, evaluated, and can then be exploited by local communities and institutions. The selected cultural heritage has different forms. Material, or tangible heritage is primarily represented by a fortification system, a historical center of the city, an industrial heritage, the heritage of the communist past, ports, trade routes... The most important monuments of the cultural heritage of Komárno include the Monument Protected Areas and especially the National Cultural Monuments.

### The City Monumental Zone

The Komárno monument zone ("PZ Komárno", "the city monumental zone") is located in the cadastral area of Komárno. It was proclaimed by the West Slovak Regional National Committee in Bratislava, the Department of Culture, with effect from the date of proclamation, September 25, 1990. It is a City Monument Zone. The Komárno monument zone is defined by the lines of the streets: Hradná, Inner Circular, Zámory, Kalman Thaly, Kossutha Square, Záhradnícka, Senný trh, Špitálska, Bishop Királya, Štúrova, Eotvosova, Kúpeľná, Palatínova, Rybárska, Dunajské nábrežie, Elektrárenská cesta, Inner Circular.

The definition of the monumental zone by plots is specified in the documentation: "Principles for the Protection of the Komárno Monument Zone". [...] This document serves to perform the basic protection of the monumental territory. The requirements for the protection of Komárno define the following:

- Protection of the monumental area.
- Adequate functional use of the monumental area.
- Preservation, maintenance and regeneration of the historical ground plan and the plots and the object structure of the monumental area.
- Elevation of objects in the monumental area.
- Elements of an ugly interior and an umbrella parterre.
- Preservation of characteristic views in the area.
- Protection of silhouettes and landscapes.
- Preservation of archaeological sites.
- Preservation of other cultural and natural values of the monumental area.

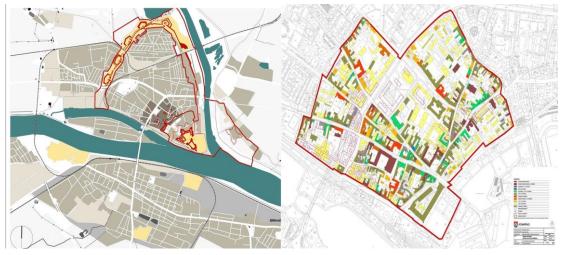


Fig. 17-18: Protected areas in Komárno – Fortress System and City Monumental Zone [28]

### National cultural monuments in the city.

On the territory of the town of Komárno are located monumental objects registered in the Register of Immovable National Cultural Monuments. Under the heritage value is meant a summary of significant historical, social, landscape, urban, architectural, scientific, technical, artistic values for which objects may be subject in individual or territorial protection.

### **Protected areas:**

Komárno Fortress System.



The Komárno Fortress System is the largest fortification system in Slovakia and the former Austria-Hungary. Komárno ranks among the oldest walls in our territory (the first walls were probably built in the first half of the 10th century). In time against the Turkish battles in the year 1546 began the rebuilding of the walls - the present Old Fortress. In the years 1663 - 1673 the New Fortress was built. The Komárno Fortress System has built for the 200,000 members of CK Army. Two major earthquakes began with the rebuilding of the system between 1808 and 1815. Later, the outer perimeter of the Palatine lines reached 6 km and their built-up area with a protective band measured approximately 120,000 square meters. For its historical, documentary and architectural value, it has declared it a national cultural monument (bastion fortification, old and new fortress, which consists of a command building, a barracks, a bastion, a wall of walls). At the same time, it is listed on the UNESCO World Heritage Preliminary List. In 2013, a joint proposal for Slovakia and Hungary was drawn up for the inclusion of the Fortress System in the UNESCO World Heritage List.

### Celemantia

The former Roman castellum spreads to Komárno and Iža, built probably at the beginning of the 1st century. In the past, the camp for the protection of the suburban, linking the camp with Brigetium, standing on the second bank of the Danube served. In Bašta nr. VI. there is a Roman lapidarium in which the vast majority of archaeological finds from Celemantine are made available to the public.

### The site of the former Ammunition Factory

The site of the former Ammunition Factory gradually developed from the beginning of the 20th century on the shore of the Váh in the northeastern part of the old fortress. Construction began during the reign of Franz Joseph I. in 1908. It belongs to the unique documents of the military-production factory complex on the territory of Slovakia. The complex of buildings was exhibited for the needs of the army and still retains the architectural style of industrial architecture as well as its urban-architectural fabric. The building consists of a command building, an entrance gate building, a spa building, warehouse buildings and more. Within the premises there is also an old power plant building, which was originally built as a diesel power plant, and later it was modified to a steam power plant. Electricity was supplied to the munitions factory, later to the port and the city of Komárno and the surrounding area.

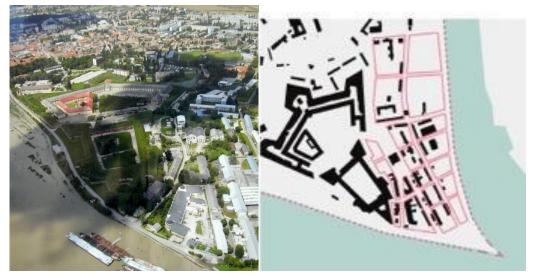


Fig. 19-20: Protected area in Former Ammunition Factory and proposal of its transformation scheme (work of students STU)

### The following objects were included on the list of the National cultural monuments:

- The sculpture of the Holy Trinity
- City Hall dating back to 1763
- County House from year 1798

- The building of the former Jesuit College in 1654
- Officer's Pavilion from 1858 to 1863
- The Zichy Palace building dating back to 1640
- Former Grand Café from 1889-1902
- Water Tower from 1902
- Court building -19th Century
- Apartment house with a pharmacy
- Town house
- The court building

### Church objects included in the list of national cultural monuments are:

- Orthodox Church dating back to 1754
- Church of St. Ondrej from 1748 to 1755
- Church of St. Rozálie from 1848
- Church of the Reformed Church dating back to 1788
- Military (Crew) Church -, Social Shelter of the Jewish Religious Community year 1896
- Chapel St. Anne, a former hospital -18. century
- Chapel of St. Joseph

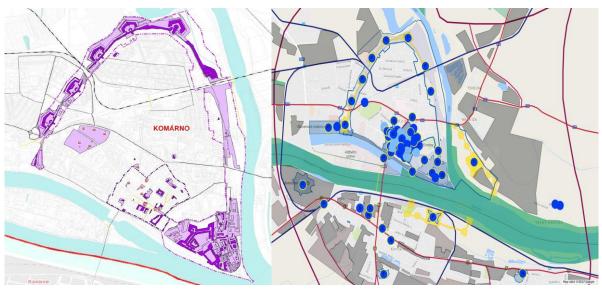


Fig. 21-22: Protected Monuments in Komárno

### Memorials in the city

- sculpture of Cyril and Method
- The bust of János Selye
- Bust of King Ladislav V. (The Bull)
- A memorial to the Komárňany prisoners
- Memorial of Attila Kaszas
- Statue of poet Csokonai Vitéz Mihály
- Bust of Bishop József Király
- Stones gone
- Memorial to victims of fascism
- Memorial Table to Holocaust Victims
- Monument of the fallen soldiers of the Hungarian Red Army
- Jókai's Memorial Table (the work of Július Berecz's Comforter Sculptor)
- Statue of Franz Lehár
- The memorial of General György Klapka



- The monument to General M. R. Štefánik
- Statue of St. Stephen
- Statue of soviet sailor (Danube fleet)
- Statue of border guard
- Statue of arad martyr
- Set of small statues of historical persons, Court of Europe

### 3.2. GENERAL DESCRIPTION INTANGIBLE HERITAGE

Within the DANUrB project, besides the tangible heritage as well an intangible forms of cultural heritage - like live cultural traditions and customs, folk art, gastronomy, handicrafts and knowledge related to the Danube; and an extinct heritage (in the form of "oral history") were identified. They are precisely the intangible traces of socio-cultural life that can be restored and used to form the common space of the Danube. Tradition, history and customs create a local identity and cultural integration of such a local identity within the wider Danube context.

#### Komárno and Komárom as the city of culture and education

Komárno has been one of the important cultural centers of Hungary already in the past centuries. In a district seat, in addition to a large business march, culture and education were easier to penetrate, than to the cities on the periphery. Mór Jókai called the city of Hungarian Olympics (or the home of poets), thanks a large number of writers living in the city. In the last years of the 18th Century, the first popular and educational magazine of the General collections in Hungary began to publish. Komárno calendars were also famous and there have been published several weekly newspapers, even in the revolutionary years of 1849/49. Komárno had two grammar schools in the 17th Century. Firstly, in 1606, the College of Reformed Church was founded, where also outstanding personalities such as Alzbert Szenczi Molnar, Istvan Hatvany and Ferenc Valy (brother of Mór Jókai) have been taught. A few decades later, in 1649, a Catholic grammar school was founded, which also boasted the names of famous personalities, Dávid Baróti Szabó, István Kultsár, Gergely Czuczor and Hans Selye.

Various cultural and sports clubs (Svornost Singer, Robotnícke ochotnícke divadlo, Robotnícka telovýchovná jednota – Working class theatre, Working class athletic association...) were also active in the city. The most important cultural association in the first half of the 20th Century was Jókai's General Education and Museum Association (restored after 1989). In the 1930's, Matica Slovak was also active.

After the end of the Second World War, the cultural life in the city, heavily affected by the war, developed very slowly. In 1949, the local organization Csemadok - an organization for the cultural life of citizens of Hungarian nationality was established in the city. This organization has contributed and contributes to preserving the identity of the Hungarians, especially through the means of protecting the rights, culture and traditions of the minority. The Center of Komárno Culture dates back to 1963. Theater and dance performances took place in his hall. At present, in the building has the seat Matica Slovak house, which carries out a meritorious cultural and educational work among citizens of Slovak, but also Hungarian nationality. In the spring 1952 the Hungarian Regional Theater was established in Komárno and gradually expanded its repertoire.

The important cultural institutions in Komárno include the Danube Museums, which have rich collections of objects from the oldest history until 1918.

### The events in Komárno

The town of Komárno has gradually grown into an important cultural center, as evidenced by many international events. The most significant ones include:

- The International Singing Competition Lehar Komárno, connected with him by the Lehar Festival. Festival is organized to honor the native of Komárno, the author of popular operetta melodies.
- Jókai's Days, organized in honor of the native of the city, the romantic writer Mór Jókai. They are a celebration of literary art, but also a competition of Hungarian theater ensembles and individuals in prose and poetry.
- The poetry festival of Attila Kaszas, in honor of the actor from Komárno.
- The Cyrillo-Methodist Celebrations and the Mother's Day, which take place in early July. They are a folklore festival of Slovak national culture with the participation of ensembles from abroad.
- Selye Day during which scientific and professional events are organized.
- Komárno days every year a repeated weekly event.
- -

### The events in Komárom

The most important regular events in Komárom are:

- Mediawave Festival an international film and music gathering in the Monosotori Fortress usually held in April.
- The programs of the Days of Komárom taking place at venues on the right bank of the Danube
- Cockade festival and other events connected to the commemoration of the revolution and war of 1848-49 on March 15.
- Hon-Nap a festival celebrating traditions usually held in Summer in the Igmándi Fortress.
- Elisabeth Bridge Festival a weekend event held in late August in both cities mostly featuring
- Concerts of local bands.
- Csobbanó Festival a thematic event of the thermal spa in late July, featuring, among others,
- Programs focusing on the heritage of Roman spa culture.
- Open days at the excavation site of Brigetio during the European Heritage Days taking place usually on one of the weekends of September.

### Traditional economic activities

Kálmán Mikszáth regarded Komárno as the Paris of the East for the splendid of cultural and economic life that took place there. The excellent geographic location of the city provided favorable conditions for the development of industry and trade. For Komárno was characteristic layer of merchants - furman's hosts was preserved until the end of the 1940s. They were small earthworms who had their own distinctive equals. For Komárno was also typical fishing. Especially fish hunting great sturgeon, or the wine trade, which was related to nearby vineyards. From the daily live was significant, that almost every wealthy family had an orchard or vineyard on Elizabeth Island, were they spend their free time during the spring and summers.

In the settlements of the right bank, agriculture and fishing were the dominant economic activities, but the local villages were also places of early industrialisation, as sugar factories, distilleries and brickyards were established in the second half of the 19th century.

Komárno and Komárom had a common history until the end of October 1918, they were one city. As in the period 1938 - 1945. Therefore, the intangible heritage of this period is characteristic of both cities.



### 3.3. GENERAL ATTRACTIVENESS OF HERITAGE IN THE TWO CITIES

From these memorials, given the common history of Komárno and Komárom, it can be said that all of them have an overlap and significance even for Komárom. However, the most remarkable common links of both cities are the following monuments:

### The Komárno Fortress System.

The battle near the Moháč (1526) – Komárno gained the strategic importance for all of middle Europe. It leads to that the renaissance bastion fortress (P. Ferrabosco) was initiated. During the Osman fights was formed new part of fortress named New fortress (J. Wymes). In the 2nd half of 17th century Komárno represented remarkable developed fortress which was one of the first fortress of this type of architecture in the middle Europe. The fortification system consisted of "Old and New Fortress", Vaag bridgehead and Danube bridgehead. Centre of fortification was Old fortress e.g. citadel.

Komárno like a fortress on the border disappeared its meaning because of Turkish army was defeated by Habsburgs monarchy in year 1683 near Wien. During the Napoleon period the Danube metropolis Komárno became the last refuge of emperor and government. It meant the last development of fortification. In this time arose: ring of small fortresses called Vaag fortress, Danube fortress and other Igmand fortress and Monostori fortress, as their part was built Palatin line and Vaag defensive line. The end of fortification systems was caused by development of artillery in the end of 19th century. It was affected by more effective weapon as a shooting grenades, explosives. The fortification system was unable to resist these weapons.

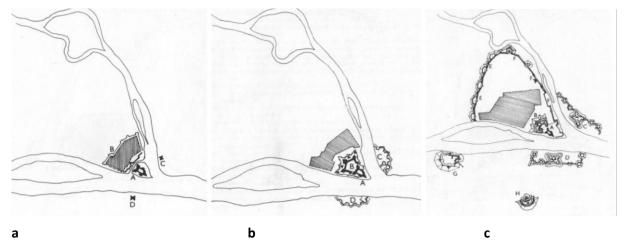


Fig. 23-25: The development of fortification system in Komárno: a) in the 2th half of thr 16th century b) in 2th half of 17th century, c) in the 19th century

A - Old fortress, B- New Fortress, C- Vaag bridgehead, D - Danube bridgehead, E - Palatin line, G - Monostori fortress, H - Igmand fortress (Source: L. Gráfel: Pevnostný systém Komárna )

#### Elizabeth Bridge.

Already in history, there was a great deal of importance for this territory, the existing ford, which was also suitable for the transition of larger military units. The importance of crossing the rivers was very large, given the extensive marshes in the area that did not allow the passage. In addition to the ford, there were transits, later the bridge on the ships. The first such bridge was built in 1586 on 79 ships. The construction of the first solid bridge was approved in 1891 and built according to the project of János Feketeházy. The newly built 414-meter long bridge connecting Komárno and Komárom was named after Emperor Franz's Joseph wife Elizabeth bridge.

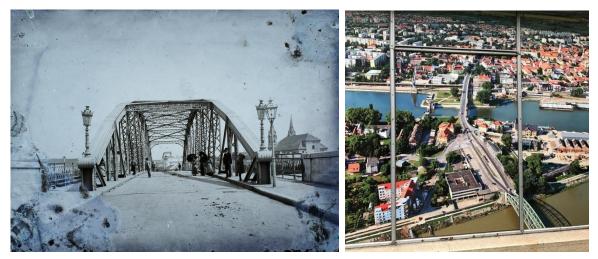


Fig. 28-29: Historical Picture of Elizabeth bridge from 1911 and today

### The Komárom Fortress System.

In Komárom, the heritage objects most visited by tourists are the military fortresses. In addition to being a regular site of events and festivals, the Monostori Fortress also houses an exhibition about the militaríy history of Komárom and a museum presenting the traditions of bread-making in Hungary. After the completion of its reconstruction, the Csillag Fortress will house an exhibition of the plaster casts from the collection of the Museum of Fine Arts in Budapest.



Fig. 26: Aerial view of the Monostori Fortress (source: Wikipedia Commons) Fig. 27: Excavations of the Roman spa complex in Brigetio (source: www.komthermal.hu)

The other heritage site that might have significant touristic potential is the excavation area of the Roman town of Brigetio. The town, connected to a military camp, existed between the 2nd and 4th centuries AD and was part of the empire's defensive line running along the Danube. It is currently in a bid to be included in the UNESCO World Heritage List as part of the Frontiers of the Roman Empire serial site

In Szőny there is a Baroque catholic and a late Baroque reformed church with a Neo-Romanesque facade. Opposite the catholic church, the Neo-Baroque Solymosy-Gyürky mansion was built in the 1910s according to the design of the renowned Viennese architects Ferdinand Fellner and Hermann Helmer. Today it houses the municipal hospital. Beyond these, Szőny is widely known as the former site of Brigetio (see above).



### 3.4. IDENTIFYING HERITAGE RESOURCES FROM THE POINT OF VIEW OF THE DANUBE

For the Danube area and for networking, the following monuments of tangible heritage are the most characteristic- they all have their congeners along the Danube:

- Celemantia / Brigetio Komárno / Komárom, sights limes Romanum (Vindobona, Carnuntum Austria, Aquincum, Colonia Singidunum Serbia ...
- Komárno Fortress System Komárno / Komárom and Petrovaradin Fortress, Beograd...
- City monument reserve Komárno, historical towns on the Danube Ingolstadt, Regensburg, Passau, Krems, Estergom, Vác, Szentendre, Petrovaradin ....
- Interesting and typical for the Danube is the system of ports (Ruse, Guirgiu ...) and the shipyard (Gurgiu ...)

#### Port of Komárno

The port in Komárno is one of the two most important ports in Slovakia. It has over 120 years of tradition. It stretches from New shipyard to the confluence of the Danube and Vah rivers, and is divided into two Western and Eastern territorial units. The western part is fed to the pool area, which was built by replacing the old shoulder at the end of the 19th Century. In the entire territory of the harbor there are warehouses and workshops, areas of free dumps and tranship centers. The coastal areas of the harbor during the 20th Century underwent major changes. The Komárno embankment at the beginning of the 20th Century was flanked by a promenade with a small number of port warehouses. The Darányi Park was located near the bridge between the city and the Elizabeth Island. The flowering of shipping after World War I across Europe meant the development of the port in Komárno. In 1925 a general plan was developed to guide the development of port areas and warehouses. The port connects two water ways: the Danube falls on the Danube - the main road Mohan - Rhine - Danube, and is the starting point for the Vah waterway.



Fig. 30: Historical view of the harbor in Komárno captured on a postcard from 1931 - view towards the confluence of the Danube and Váh (source: private archive Martin Dubiny).

#### Ship-yard Komárno

Shipyard Komárno belong to global brands. The history of modern shipbuilding in Komárno goes back to the 19th Century. The ships being exported almost to the whole of the world. Unfortunately, the larger ship left the gates of the Shipyard at the beginning of the 21st Century. Between the troubled years from 1991 to 2001, they signed the shipyard production. The war in Yugoslavia then stopped shipping at the lower Danube, and after the end of the war, it was no longer possible to restore the scope of production. The shipyard in Komárno is divided into two areas: Old Shipyard in the eastern part and New Shipyard in the western part of Komárno.



Fig. 31-33: The views of the New Shipyard hall buildings, and area, 2018 (Foto: L. Vitková)

Old Shipyard, or "Damage factories", are still preserved at the corner of Elizabeth Island, which began to form from 1898. The initiator of the development of the shipyard was the Hungarian Steamnavigation and Marine Company (M.F.T.R.). The territory has undergone several structural changes. From the original first objects (workshop structure with fractured construction), the minimum is preserved up to the present. In the period of the first Czechoslovak Republic, since 1923 Škoda had the territory of the yard. The first production hall buildings were rebuilt, modernized and at the same time the complex was completed with new warehouse and production facilities. The central hall building of the Škoda Works was built in the 1930s and 1940s on the site of a previous production hall. Although it is a simple object used for shipbuilding purposes, it is a specific type of industrial architecture. Since 1947, Škoda has moved from the Old Shipyard to the territory called "New Shipyard". Among the most important ships in the Old Shipyard are the military patrol boat President T. Masaryk. Unfortunately, this ship has not survived.



Fig. 34: A view of the Old Shipyard hall building, former Škoda plants from 2018 (source: foto/archive by Martin Dubiny).



New Shipyard lies in the area on the west of the harbor, which was created by the replacement of the Danube arm at the end of the 19th Century. In this area, a port with port warehouses and a railway sliver had to be developed further. However, this development never came. New Shipyard, which was built in 1953 by Skoda, was located there. At that time it belonged to the most modern of its kind in Europe. With its disposition and object structure, the yard met the most demanding production conditions. Shipyards have been one of the largest employers in the region during their greatest fame. At present, vessels, boats or ship maintenance are still being manufactured to a lesser extent.



Fig. 35-36: The growth of the shipyard from 1950 to 2018 podľa © GEODIS SLOVAKIA, s.r.o. a Historické LMS [25]



Fig. 37: The view of the hall buildings and the new lift ship in Komárno from 2017 (source: foto/archive by Martin Dubiny).

### 3.5. POSSIBLE HERITAGE ITEMS TO BE VALORIZED

Cultural heritage that has the potential for transformation and further exploitation has different forms. It is primarily about the Komárno fortress system, industrial heritage, heritage of the communist past, harbors, traces of trading ...

Representatives of industrial heritage with the potential of transformation include: the Munition factory complex, the shipyards - Old and New yard and the port. In particular, their location within the city, the urbanistic - architectural expression of the site and the object, the variability of the layout of the building are essential. This is a large area with many objects that are not easy to find a new feature for them. Among the objects with the greatest potential are the building of the old power plant, hall building of the old Skoda plants....

## The proposal for the Master Plan of the town of Komárno sets out the following principles of transformation and reconstruction for individual sites as follows:

### Area of the Fortress

The proposal of Komárno master plan suggests reconstruction of central strength buildings, adapt their to new features focused on tourism, services, amenities and housing, given their considerable potential for unused land, especially the New Fortress. One strategy to launch a reconstruction process is to adapt selected public administration objects that would be a magnet for commercial, cultural, artistic, or innovative features.

With the transformation of the New Fortress, the conception of the largely "free" space before the fortification is related. This is a significant from the historical period. Directly in the terrain along the perimeter of the preserved walls of the Central Fortifications, master plan proposes to grant the extinct parts of the former fortifications to the terrain.

### Harbor Area

The Master plan plans to move the harbor to the new location of Veľký Harčáš. The reality of such a major investment must be verified through the Feasibility study. The territory of the present harbor complex has the potential for multifunctional use and realization of the promenade along the entire Danube waterfront and link it to the city's street-side and pedestrian system towards the Danube.

### **Old Shipyard**

The Master plan of the City Komárno suggest for this peninsula the realization of a public port with the appropriate facilities and recreational-leisure facilities, due to its attractive location.



Fig. 38-39: Protected area in Former Ammunition Factory and proposal of its transformation scheme (work of students STU)

STU and BME students are verifying the possibilities of transformation for unused areas and objects. This is a search for a compromise between owners 'requirements, city council visions, state institutions' strategies and the needs of the people themselves. In order to create a new pleasant living space in the water, it is necessary to involve all stakeholders in the process.

Architectural heritage reflects the historical image of cultural and social ties in the city. A set of values that are concentrated by layering one value to another creates a "genius loci" of the city. It needs to be valued for the development of the city and tourism in the region.

### **4. TOURISM**

### **4.1. TOURIST ATTRACTIVNESS**

The tourism in Komárno is determined by its connection to the river Danube, the border with Hungary and the Hungarian town of Komárom, the history of the town and unique monuments, a



number of thermal baths in the city surrounding, or towns and cities with cultural and historical values near Komárno (Nové Zámky, Kolárovo, Hurbanovo, Iža, Patince, Tata ...)

The territory of Komárno belongs to the Danubian region of tourism (according to the Regionalization of Tourism in the Slovak Republic, 2005). The potential of tourism in Komárno represents the following basic forms, which are often intertwined:

- Urban and cultural-tourism.
- Spa and health tourism.
- Summer hiking and stays with water.
- Rural tourism and agro-tourism.
- Partly also winter tourism and winter sports.

The main objective of the development of tourism in Komárno is to increase the city's prosperity, to increase employment opportunities, to preserve the cultural and historical identity through activation and its untapped potential.

### Cognitive tourism

Cognitive tourism includes cultural, social, educational, exhibition, gastronomic, conference and congress activities. For the development of tourist tourism in Komárno and its surroundings, they have the greatest impact:

- The rich history of Komárno
- Fortification system of the town of Komárno, Komárno, The city monumental zone
- Archaeological monuments, in the wider area Iža (archaeological site / Roman camp)
- Museums, galleries, exhibition grounds
- Sacral objects
- Folk architecture
- Technical monuments and buildings (water tower, steam pump)
- Significant parks
- Memorials, memorials, etc.
- Facilities for the Congress CR (seminars, conferences, symposia, congresses)
- Other facilities and premises (theaters, concert halls, gathering areas.

The most important monuments for the development of tourism in Komárno are the fortifications of the Komárno - Komárom fortress system, the historical center of Komárno as well as the industrial heritage.

Areas and resorts with the potential for tourism development include:

### Thermal bath

A source of thermal water healing was discovered in Komárno in 1967. Subsequently, the thermal swimming pool was built. Today it is located on an area of 2.5 hectares and has two active thermal springs with a water temperature of 45° C and 30° C, which have beneficial effects on hip, rheumatic and female diseases. They are also suitable for recreational purposes. In the year round operation area there is an indoor seating pool for 40 people, a small sauna for 10 people and a larger sauna for 25 people, a rehabilitation gymnasium and a fitness center with special facilities. In the outdoor part of the thermal area there are swimming and educational, non-diving, children's and seating thermal pools. The area of pools are completed by beach and playgrounds for sports as well as playground for children.

### Parks and public areas

Komárno also has public areas of everyday recreation. These are parks, public green spaces, playgrounds and leisure centers or multipurpose facilities. One of the most important public spaces

in the town of Komárno is a pedestrian zone in the historical core connected with the fortress and the city park. These areas are equally important for tourism.

### Recreation in the natural environment

In Komárno and its environs there are several water reservoirs with interesting scenery, which create favorable conditions for the development of summer tourism connected with water stay. Rich folklore and folk traditions create the conditions for the development of rural tourism and agro-tourism. There are no marked hiking trails or educational paths in Komárno and its surroundings. Likewise, the system of starting hiking points from the built-up area to the free landscape is missing.

### Biking

In the Komárno district there are very good conditions for cycling due to the lowland character of the area. The main skeleton of the cycling route network is the international Danube cycling route leading along the Danube, mostly along the dyke. From this route in Komárno turn to the Váh cycling-artery (towards Kollárovo, Šaľa and Kráľová nad Váhom) and Ponitrians cycling artery (towards Nové Zámky, Nitra, Zlaté Moravce and Topoľčianky), where it follows the Štiavnica cycling-artery. Long-range cycling artery are Eurovelo 6 - Dunube cycling artery.

### Gardening settlements

Part of the recreation of the town's inhabitants are also the gardening settlements in the town register. In total, they are located in the 19th locations. The gardening settlements are directly connected to the territory of Komárno and its parts such as Nová Stráž, Nová Osada, Tehelňa, Malá Iža. Extensive type of recreation includes (besides gardening) gardens in family houses.

### Thermal spa in Komárom

Thanks to the local thermal spa, water recreation is an essential part of the tourism industry of Komárom and plays an important role in the local economy. The spa is chiefly owned by the city, whereas most of the hotels around its area are in private ownership. Because of the limited availability of public funds the development of the complex is conceived as a long term process.

### Festival tourism in Komárom

The Monostori fortress is a popular site of various events, including festivals attracting international visitors, such as Mediawave or the International Festival of American Cars. The revitalisation of the extensive grounds of the fortress have started several years ago and some of its part still await renewal.

### Roman heritage

After the opening of the visitors' centre at the excavation site of the Brigetio military camp at Szőny, the town can expect an increased number of tourists interested in the Roman heritage. Part of the ancient artefacts, as well as several tombstones found in the area can be seen in the György Klapka Museum in the inner city, and there is also an open air display of sarcophagi on the Szabadság Square.

### Plaster casts in the Csillag Fortress

Following the reconstruction of the Csillag Fortress it will house the plaster cast collection of the Museum of Fine Arts in Budapest. During the nineteenth century, plaster casts of famous artworks were indispensable aids for teaching the fine arts, therefore academies and museums assembled large collections of these objects. Today, they are the subject of renewed interest among both experts and the public in Europe, and the exhibition in the Csillag Fortress will be one of its kind the wider region.



### 4.2. TOURISM INFRASTRUCTURE

The Komárno Information Office is set up in the town, which informs citizens and tourists about the possibilities of cultural, sports and leisure time in Komárno and its surroundings.

The basic tourist infrastructure

The basic tourist infrastructure of the city is represented by the sights mentioned above as well as the civic amenities linked to culture and sport. The main sport and fitness facilities of the whole area include: Indoor swimming pool, city sports hall, winter stadium, football stadium, canoeing center, tennis courts, volleyball hall and climbing wall, Bowling & Squash Center, wrestling hall, scateboard area, multipurpose sports, fitness center ... There is a beach volleyball court, focal points at the dead arm of Váh.

#### Accommodation and catering facilities

Accommodation and catering facilities located in Komárno serve as home residents and tourists coming to know about culture and sport.

Accomodationa facilities	Number of	Capacity of catering facilities
	beds/rooms	restaurants + lounge /caffe house/congress centrum
Hotel PEKLO - POKOL****	63/30	100/20/70
Hotel PANORÁMA **	67/32	50 + 20/17/20
HUBERT VARGA Restaurant & Pension **	12/3 AP	45/0/0
Pension DUNA **	10/4	40/0/0
SZEKERES Csárda <sup>®</sup> & Pension **	8/3	35/0/0
City Centre Apartments***	21/4AP	0/0/0
Pensionn LEHÁR **	12/6	40/0/0
Hotel BANDERIUM ***	26/12	30/30/0
Hotel BOW GARDEN***	55/20	100+20/25/60
Olymp Pension & Reštaurácia ***	16/7	50/39/50
Pension DELTA **	20/9AP	35+10/35/35
Pension APÁLI *	9/3	30/0/0
Pension MARCIPÁN + apartmán	10/6	0/0/0
Villa Centro ***	8/3	0/0/0



Fig. 40-41: Kortina restaurant in the part of fortification line, and Bella Pension and Restaurant in the City monument zone

In Komárno there are altogether 76 different restaurants, pizzerias, cafés, pastry shops, pizzerias, and buffets.

### 4.3. THE POSSIBILITIES OF TRANSPORT FOR TOURISM

The town of Komárno and Komárom lie on Europe's major communication axes, on European multimodal corridors. Therefore they have an excellent position in terms of its accessibility on a European scale. It is linked to the road, rail network and they are particularly necessary to pick up shipping.

From the point of view of automobile transport, it is worth highlighting its connection to the supraregional transport route, the M1-Vienna-Budapest motorway, which is traced 15 km from Komárno in Hungary. The city is also connected via roads I and II. class with cities of regional importance as well as the capital cities of Slovakia and Hungary. Komárno is a crossroads of 4 railway lines, of which the most important connection is Komárno - Nové Zámky, due to the link to the European rail system. Cross-border contact with the Republic of Hungary provides rail links with Komárom. The basis of water transport is the Danube waterway E80 with a harbor in the city itself. The harbor in Komárno and Komárom are connected to the trans-European Rhine-Main-Mohan-Danube. It represents the link between the North Sea and the Black Sea. Air transport is linked to airports located more than 100 km away in Bratislava and Budapest.

### 4.4. OPTIONS FOR A THEMATIC TURISTIC NETWORK COOPERATION

The potential of tourism development both in Komárno itself and within the region, cross-border regions as well as in connection with the cities along the Danube flows are mainly the following thematic areas:

- Cultural-tourist tourism (a network of historical sites, monuments a system of archaeological finds, fortifications on the Danube, architecture of the period of socialism ....)
- Spa and Health Tourism.
- Rural tourism and agro-tourism gastronomy, winery, agriculture, traditional crafts ...
- Summer hiking and water stays (cycling, water sports ....)

These areas blend and enrich each other.

### 4.5. CONCLUSION AND CHALLENGES

The greatest potential linked to tourism is the Komárno Fortress System, especially the New Fortress. Also valuable are many other monuments or objects that are not yet used... On their occasion are waiting for the premises and the areas of the port, or the objects of the shipyard. In terms of the functional use of the city, congress and conference tourism has considerable potential due to the huge areas of the strength system and its unique value. In addition to the revitalization of selected buildings, it is equally important to build a quality system of public spaces and with it the training paths.

### Improving public spaces in the city



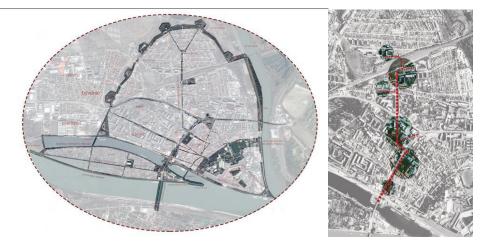


Fig. 42-43: Projects of main public spaces system for Komárno (Students works FA STU Bratislava)

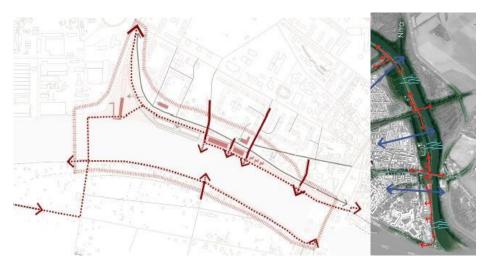


Fig. 44-45: Projects of public spaces along the Danube and Vah in Komárno(Students works FA STU Bratislava)

### Creating educational walkways

It is suggested to consider the trails of the educational paths:

- City Circle Sights of the Monument Zone.
- Fortification circuit monuments of the Komárno fortress system the town of Komárno, the Old Fortress, the New Fortress, the Palatine Line, the Vah Line, Csillag Fortress, the Monostor Fortress, the Igmánd Fortress.
- Enhanced circuit a route combining a tour of the historic center, the fortification system of the fortifications of Komárno and the attractions of Elizabeth Island.
- Creation of hiking trails around Komárno.

The network of field roads offers the opportunity to build a network of recreational paths for unpretentious forms of tourism. These would link points of interest - the town of Komárno - the surrounding villages - tourist sites of interest.

Within the framework of the proposal it is possible to consider the following routes:

- along the Danube watercourse,
- along the Váh watercourse,
- circuit around the Apulian Island,

- circuit - Elizabeth Island (Platan alley, Grand Bazaar and Maldonian waterfront).

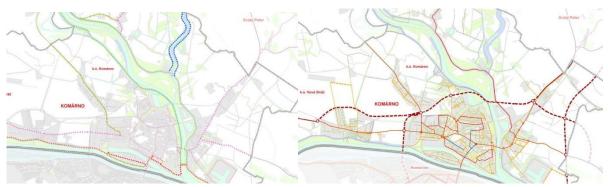


Fig. 46-47: Project of cycling and road system in Proposal of Master Plan of City Komárno [7]

### **5. STAKEHOLDER'S ANALYSIS**

### **RESEARCH GUIDELINES AND PLAN**

### 5.1. LOCAL/REGIONAL STAKEHOLDERS, THEIR IMPORTANCE IN THE DANURB PROJECT

For the DANUrB project, stakeholder engagement is of paramount importance, especially due to its involvement in activities along the Danube River. The project aims to create an effective network of cooperating institutions. For the project, in the first stage, it was important to get data from the stakeholders, and for a deeper understanding of their activities, their intentions and the subsequent creation of the functional network. For a deeper and more precise acquisition of information and data from local actors from the whole area of the DANUrB project, we used the sociological questionnaire (datasheet) created and agreed upon in the DANUrB project working meetings. It was developed by sociologist from the Department of Sociology and Communication BME - Technical and Economic University of Budapest Annamaria Orban and Arpad Szabó from the Faculty of Architecture of the same university. The questionnaire was mainly used to collect data on stakeholders / cooperating institutions. He consisted of the following parts:

- a brief description of the DANUrB project an informative part for the stakeholders,
- location of the actor on orthophotomap and illustrative images of activities or presentation of the institution image / graphic material,
- real information about the institutions its name, focus, size of the target group affected by the activities of the actor.

The other questions were already oriented towards the DANUrB project and had open character - they required a subjective response from the interviewed participant (Danube Link, mission, goals, organization role that may be important for the DANUrB project, activity related to DANUrB objectives, initiatives and programs of the actor, the proposed cultural heritage related to the Danube to be valorised in the DANUrB project, the relationship also potential to the other actors in the cultural network DANUrB, as well as the suggestion / tip to other stakeholders).

For the DANUrB project, it is also important that Komárno is part of many associations and clusters such as the Pons Danubii Ezus / EGTC, the Union of Cities of Slovakia, the Regional Association Váh-Dunaj-Ipeľ, the Association of Municipalities of Slovakia (ZMOS), the Danube Knowledge Cluster, the RRA Ister and Dolný Žitný Ostrov Association. These associations and clusters bringing together municipalities, cities and other entities transfer their interests towards the state, transnational organizations and other entities. They coordinate their activities and share their valuable experience with each other.



### 5.3. WHO ARE THEY AND HOW TO INVOLVE THEM INTO THE DANURB PROJECT?

The cooperation on the DANUrB project showed interest and actively participated in the collection of data especially the active institutions from Komárno. Outside the City Office (and its components - chief architect and representative of monumental department), the following institutions were:

- For Castello Comaromiensi, n.o. An organization with great enthusiasm dedicated to the restoration, research and presentation of the national cultural monument of the fortress and fortress system of the town of Komárno;
- Pons Danubii The EGTC is a European grouping of territorial cooperation bringing together three Slovakian and three Hungarian cities from the Danube region with rich experience and knowledge of local actors and activities in the territory;
- Danube region museum in Komárno a public institution administering social science and nature collections linked to the region also active in scientific research and education activities has a rich knowledge of tangible and intangible cultural heritage in the region;
- Kayak & Kanoe Club Komárno Water sports section, boasting a rich tradition in the region with excellent international successes;
- The House of Matica Slovenska in Komárno significantly influences the cultural life of not only the Slovak population by organizing events, creating its own authoring program, hosting artistic ensembles and the possibility of renting space with high-quality equipment. Collects and raises local intangible cultural heritage, traditions, rituals;
- Bella Guest House and Restaurant gastronomic operation in the historic center preparing and serving local specialties including Jókai's soup;
- Litovel Pub gastronomic operation on the Danube waterfront bordering the industrial zone.
  A place of great popularity with the local kayak community. The establishment is a local hero and a well-known personality they were the Olympic Fourth Squad coach Tibor Sóos;
- Decart s.r.o local developer with city and seaside developments with rich experience and good insight into the local real estate market;
- J. Selye University a young and ambitious public educational institution offering Hungarian university studies at three faculties;
- Nitra Regional Office Komárno office research, conservation of monuments with a rich knowledge of the local cultural heritage in Komárno and its surroundings.
- Danube region tourism organization Podunajsko Dunamente promotion of the region, development of tourism cooperation with Tourist Information Office Komárno.
- Komarňanská plavebná spoločnost (Komárno's shipping company) organizes courses for small boatmasters and sightseeing cruises around Komárno



Fig. 48-49: Meeting with stakeholders in Komárno

The aforementioned participatory process with the associated partner in the project DANUrB - the city of Komárno, we performed at the turn of 2017/2018 (October - February). In addition to gathering data, it is important to create an active network of local actors - the stakeholder platform of the Danube cultural promenade. For these purposes, we have approached more than forty local institutions with our help with representatives of the Komárno City Council. We have many contacts

from them. If we were interested in the participants, we organized a personal meeting of representatives of the institution and representatives of the Faculty of Architecture STU in Bratislava (mostly 3-4 members) directly in Komárno. Most of the meetings have taken place at the institution. The meetings consisted of presenting the objectives and focus of the DANUrB project and reciprocal information on the activities and functioning of local actors / stakeholders.

In Komárom, the following local stakeholders showed interest in the goals of the project and participated in its events:

Élettér Egyesület – a civil organisation based in the suburb of Koppánymonostor which conducts a variety of activities. Recently they created an educational trail comprising information boards and street furniture presenting the heritage of Koppánymonostor, and launched a homepage (http://koppanmonostor.hu/) with contents on local history. Last year they became the tenants of the city's orchards on the Saint Paul Island where they apply farming methods sensitive to the needs of this protected natural area. Besides this, with the help of volunteers the association every day distributes food packages donated by the nearby Tesco hypermarket to local lower status families. In the near future they plan to extend their activities to the inner city by opening an open art school where volunteer teachers from the whole region (including Komárno ad its surroundings) can teach art and music. The association has its premises in the Mag-Ház community house built and maintained by themselves and six other civil organisations.

Brigetio Thermal Spa – the thermal spa of Komárom is run by the Komthermal company owned by the local municipality. The extensive grounds of the spa complex are located on the north-eastern part of the inner city. The spa have operated since the 1970s and attracts a great number of visitors not only domestically but also from abroad, mainly from Germany and Poland. Because of the high water temperature, the bathing season spans from April to October. The spa constitutes a central element of the city's tourism industry and since many of its foreign visitors visit Komárno it also contributes to the tourist traffic on the left bank of the Danube.

### 5.3. CONCLUSION

At the level of the DANUrB project, in addition to questionnaires (datasheets), a table document with basic real and contact data on institutions was also created, with "hard" data, which completes the questionnaire form (name, type of institution - choice of options: cultural institution, tourism, civic / non-governmental organization, educational institution, other public institution ..., territory / scale - choice of options: local, regional, cultural, tourism and gastronomy, commerce and commerce, education ... location, google maps (longitude and latitude), contact person: name, address, address, phone number, email address, language, engagement rate; The whole process was coordinated between DANUrB project partners, quality of data relevant to the next steps.

The datasheets of each stakeholder from all the sites involved in the project were collected and processed in the form of posts for the purpose of further discussion at the meeting of all partner institutions on the FA STU ground in March 2018. They were issued together with questionnaires on cultural heritage so that they could arise ideas for possible connections and possibilities of valorization and creation of the Danube cultural promenade with a strong identity and a unique tourist "brand" of the Danube region. Likewise, the data was incorporated into the GAN map of the DANUrB project territory also for the needs of stakeholder platforms. This information will be the basic building blocks of the strategy and mapping of the Danube Cultural Promenade.

At the stakeholder level of Komárno Using the criteria - "Hard" we can categorize and characterize the twelve stakeholders as follows: according to the type, the highest representation of institutions



focused on local development and tourism (5 out of 12), followed by educational, cultural and civic / non-governmental institutions (all 2 out of 12) In the area of scope / scale, local and regional (both groups of 5) were both international and one national, the last criterion being the type of activity performed, the highest number of tourists (4 out of 12) followed by protection (3 out of 12) and education (2 out of 12), the other one by one, local development, sport, socio-cultural activities and business. With a focus on tourism and local development, providing a good prerequisite for working on set the objective of creating the Danube cultural promenade by bringing together actors from smaller towns on the Danube. It is also possible to identify more precisely the unrecognized or potential heritage of valorization.

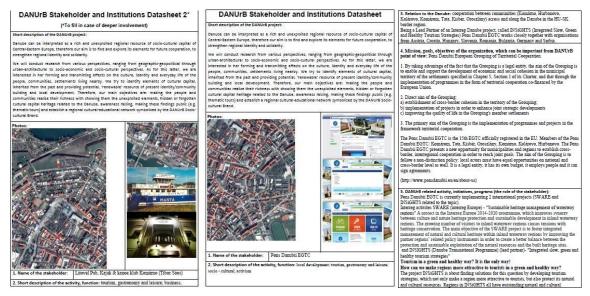


Fig. 50-52: Examples of datasheets

*From the tangible heritage*, it is mainly the fortress and fortress system of the town of Komárno, the ammunition factory and the industrial heritage. A major problem is the inaccessible Danube embankment.

**From the intangible heritage**, it is a religious and ethnic diversity (orthodox, reformed, Catholic, Jewish religious community) and co-existence, gastronomy (Jókai's soup...), places and stories associated with Móra Jókai and army history (balls, festivities, ...) and, last but not least, a strong tradition of water sports.

An important finding is the crowd's interconnection of Komárno to the metropolitan regions of Vienna, Budapest and Bratislava, which proved to be the date of the meetings. Frequent workplace duties in these places have been a frequent limit.

### **6. DEVELOPMENT CONTEXT**

### 6.1. KOMÁRNO'S DANUBE-CONTEXT IN THE ACTUAL URBAN PLANS

### Program of Economic and Social Development of the Komárno City

### Vision of the Komárno city

The vision of Komárno is in the material of the "Program of Economic and Social Development of Komárno" specified as follows: Komárno as an important, attractive, safe, economic, social and

modern communication center of the region providing a high quality of life for citizens through wellbuilt social, technical and environmental infrastructure in ecologically sound and an attractive environment.

The program of economic and social development of Komárno perceives as a key asset of the city a change in the structure of the population - increasing the share of university educated people, the introduction of innovative elements by employers, business development, a convenient location close to main traffic flows, strategic position at national borders, tourism, membership in associations and initiatives, favorable conditions for business development, the existence of natural wealth and cultural heritage in the city, cross-border cooperation with Hungary, good shopping opportunities and services, a wide range of services for citizens, traditional cultural events and international events.

The program of economic and social development of Komárno set the following global priorities: In the field of economic development: Development of the economic base by supporting the business sector with emphasis on the development of tourism, transport infrastructure and streamlining of public administration.

*In the social sphere*: Improving the quality of life of local people by supporting and developing school and cultural infrastructure, social services and improving the level of public spaces. *In the environmental field*: The aim is to protect the environment with an emphasis on streamlining the waste management system, supporting activities in the field of water management and transport.

These objectives are also reflected in the concept of the spatial plan and the plan of implementation tasks.

### Master plan of the city Komárno

The town of Komárno has a valid Spatial Plan of the town of Komárno, processed by the architectural studio MARKOP, n.o. Ltd. - Ing. arch. Marta Kropiláková et al. in the years 2004-2005, which was approved by the Municipal Council of Komárno by Resolution no. 10/2005 on 20.10.2005. This land-use planning document was gradually updated in the form of amendments. Construction on the territory of the city takes place in accordance with the above mentioned land-use planning documentation.

In the year 2016, the town of Komárno has drawn up a new territorial plan of the town of Komárno in view of the need to harmonize the document with the Spatial Plan of the Region of the Nitrian Region, the Territorial Generation of Transport of the City of Komárno, but especially because of the necessity to respond to new intentions, changed socio-economic and legislative conditions.

One of the most important factors underlying the change of the town-planning plan of the Komárno as a border city is the opening of borders in line with the principles of the Schengen Convention. The opening of borders has been fundamentally reflected in changes in the behavior of the population or economic and commercial subjects. Komárno and Komárom, thanks to their mutual proximity and their historical interconnectedness, "create a functioning whole cross-border neighborhood".

Another problem of the current Master Plan of Komárno is the too wide range of defined functional types of areas and buildings as well as the number of types of communications. The size of some regulated blocks, which prevents their more efficient transformation or development.

### "Draft of the Town Plan of Komárno" (April 2018)



The proposal for a new Master Plan of Komárno is based on the strategy of the city, which, given its advantageous location, should fulfill the functions of supra-regional to international significance.

The draft of Master plan defines the following priorities that the city should develop:

- The development of technological and industrial parks connected with local universities.
- Education institutions with a focus on the development of logistics and logistics, business and economic services.
- Supra-regional business centers and exhibitions areas
- Supra-regional health services.
- Supra-regional cultural events (Danube Cultural Festival presentation of the Danube region culture).
- Development of leisure time activities and recreation for local residents and tourists with the involvement of surrounding natural phenomena (Danube, Váh, floodplain forests, lakes) and cultural and historical monuments.

The draft of Master Plan supports the transformation and development of the following areas:

- Strengthening the significance and transformation of the main city radials, completing the workings and unsettled areas into a compact urban block building with the city.
- Gradual deployment of the harbor in Komárno and subsequent reconstruction of the relaxed seaport on the attractive part of the town with promenades.
- Implementation of a new Trans-continental logistics center 6 a port in the Veľký Harčáš area.
- Incorporation of the entire fortification system of the city into tourism.
- Elizabeth Island gradually transformed into a mixed functional use for residential area with a port extension for passenger ships and the establishment of a personal harbor in the eastern tip of the island.
- Humanization of the mass housing complexes.
- Completing a network of cycle and pedestrian paths in Komárno.

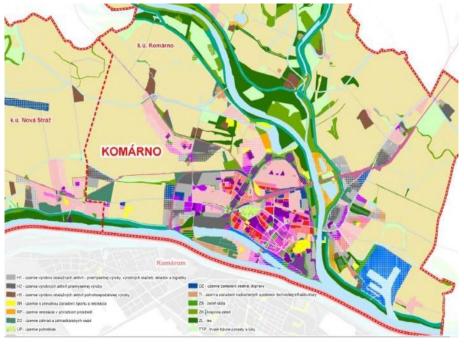


Fig. 53: Draft of Master plan of city Komárno 2018 [7]

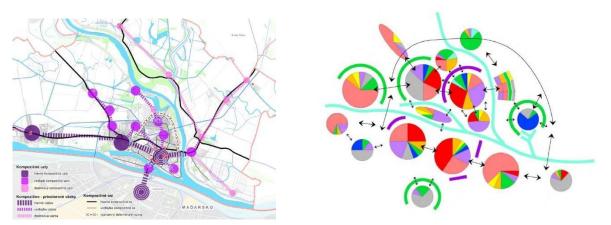


Fig. 54-55: Draft of Master plan of city Komárno 2018 – The proposed system of the main centers and axes of the city and the principle of multifunctional use of the city territory [7]

### The development potential of Komárno

The great potential of the city lies in its unique location and the wider cultural and historical area in which the city is located. In addition, Komárno is one of the historical sites with many unique monuments and mentioned urban monument zone. In addition to development through tourism, the city is also expected to grow by supporting innovative forms of industry or creative industries.

In the city of Komárno are specified areas with high development potential. These are in particular the areas around the Danube and the Váh, Elizabeth Island, the former complex of munitions factories, the fortress system. Other areas with the potential and need for urban interventions are residual areas along major city radials. The concept of city development is based on the inner development of the city - the installation of spatial reserves, the transformation of brownfields and the intensification of its urban structures.

### Concept of future development

The main role of the future development of the city is to guide the progressive growth and homogenization of built up areas - its thickening. Similarly, a conceptual approach aimed at transforming and developing the urban structure and public spaces along the Danube and the Váh can raise the importance of the city.



Fig. 56-58: Projects of transformation areas along the Danube and Váh in Komárno (Students works - FA STU Bratislava)

The key to the positive development of the city is the establishment of a city development strategy and verification of the possibilities of its development through conceptual proposals and variants of urban-architectural solutions. These are also realized thanks to the DANUrB project at the Faculty of Architecture STU and BME. For the spatial concept of city development, respectively for the concept



of transformation of the urban structure, it is important to thoroughly and comprehensively analyze its territory, as well as to affect the city's potential of its features.

# 6.2. CONCLUSION (RELATIONSHIP – IN THE PLANS - BETWEEN THE TWO CITIES, ACCORDING TO KOMÁRNO'S POINT OF VIEW)

### Komárno - Komárom

"Today's spatial form of the towns of Komárno and Komárom is based on the historical fortification system that has been implemented on both banks of the Danube during the centuries. On the Slovak side in the form of the construction of the Old, New Fortress, Palatine and Vah line Fortress, with fortifications and bastions and on the Hungarian side in Komárom as the construction of the fortress lgmándi eröd, Csillageröd and Monostori erödna."

The city connects not only a common history but, after the accession of the two countries to the open Schengen area, their natural synergy is obvious, they are co-operating and cooperative cities. Their synergy is manifested in various aspects: in terms of governance, mutual use of services, commercial amenities. It helps to control the Hungarian language by the inhabitants of Komárno. In terms of market economy, however, "both cities are at the edge between partnership and economic competition". This is reflected in the struggle to create jobs or shareholder taxes on residents.

There are different legislative instruments on both banks of the Danube, but the spatial planning strategy needs to be synchronized. In view of this fact, the material "Harmonization of spatial planning documents and development programs of Komárno and Komárom for their joint and coordinated development" was prepared in 2012 on the basis of the Program of Cross-Border Cooperation of the Republic of Hungary and the Slovak Republic in 2007- 2013.. The alignment analyzes the overall view of the development of the two towns of Komárno and Komárom within the European Schengen Area. The strategy for sustainable development is the ambition to harmonize the spatial planning of these cities.

The project "Harmonization of spatial planning documents" is divided into two parts:

- Part A common strategy for the towns of Komárno and Komárom, which is based on the analysis of Master plans of both cities for searching and solving problem areas. Based on the analysis and synthesis of common issues, interests and priorities, a joint strategy for the joint development of both cities in spatial planning and regional planning is established.
- Part B Proposed amendments to the Master Plan of the town of Komárno, resulting from the harmonization of spatial planning documents and development programs of Komárno and Komárom for their joint and coordinated development.

"The Komárno - Komárom City Summit brings together common needs and requirements. This is in particular the synchronization of the road and shipping concept and the development of

tourism.

Key priorities in these areas include:

 Development of leisure - time activities and recreation for local residents and tourists with the involvement of surrounding natural phenomena (Danube, Váh, floodplain forests, lakes) and cultural - historical monuments (Old Fortress, Komárno Fortress System, Fort Igmándi eröd, Csillagerid, Monostori eröd in Komárom). The key is to involve the entire fortification system of both sites in cognitive tourism and to strengthen the overall optical perception of all forts and fortifications on both banks of the Danube.

- Interconnection of pedestrian zones of both towns along Záhradnícka Street in Komárno and Igmándi ul. Komárom and communications.
- Completing the network of cycle paths in Komárno and Komárom, connecting them via a footbridge and cycling footbridge over the river Danube and connecting to the planned EuroVelo 6 branch.
- Specification of speed path trace no. I / 64 linking Slovakia and Hungary.
- Implementation of a new Trans-continental logistics center 6 a port in the Veľký Harčáš area, which should fulfill the role of the most important node of combined transport in Slovakia, but of pan-European importance, in accordance with the principles of the Danube Strategy (Decision of the European Council of June 2009). It should strengthen the economic growth of the city of Komárno while improving the socio-economic situation of the inhabitants of Komárno as well as Komárom.

When designing a new Master Plan of the town of Komárno, the processors (AUREX Bratislava) assessed and promulgated and incorporated the following requirements and recommendations of the material "Reconciliation of Town Planning Documents of Komárno - Komárom. [Master Plan Komárno]



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