Iva Marinčić

Split 5

The second coast

Urban design of the bus terminal and its surrounding

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Vienna,
May 2021.

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TECHNISCHE UNIVERSITÄT WIEN
Vienna University of Technology

DIPLOMARBEIT

Split 5 - The second coast
ausgeführt zum Zwecke der Erlangung des akademischen Grades eine Diplom-Ingenieurin unter der Leitung von

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KURZFASSUNG

In den letzten Jahren übernimmt der Tourismus an Kroatiens Küste Überhand. Split mit seinem historischen Stadtkern ist ein attraktiver Ort für Besucher, deren Zahl von Jahr zu Jahr zunimmt. Mit dem Anstieg der Touristen beginnt Split den Wohnbau in der ganzen Stadt umzuwandeln, Häuser werden renoviert, die Anzahl der Herbergen steigt erheblich und Projekte für Luxushotels entstehen jeden Tag. Aber werden bei all dem durch die Bereitstellung von Unterkünften für Touristen andere, für die lokale Bevölkerung essentielle Bedürfnisse gedeckt?
Angesichts der infrastrukturellen Kapazitäten der Stadt, wird Split während der Saison zu einem Bienenstock, in den und aus dem es fast unmöglich ist, hinein- oder herauszukommen. Die Fahrt vom Eingang nach Split zum Fährhafen und zum Busbahnhof dauert Stunden statt einiger Minuten. Zum bereits schlechten Infrastruktursystem der Stadt kann der bestehende Busbahnhof längst nicht mehr die Kapazität und Qualität der Dienstleistungen für Touristen und Einheimischen erfüllen.
Die Arbeit beginnt mit einer detaillierten Aufarbeitung der Stadtmorphologie von Split, wie die Stadt entstanden ist und sich weiterentwickelt hat, wo der Wendepunkt in der Stadtplanung stattgefunden hat und warum die Stadt heute ist, wie sie ist. Sie beschreibt auch wie die Nordseite in der Planung vernachlässigt worden ist und warum die heutige Busstation, abweichend von ursprünglichen Plänen, im Süden der Stadt errichtet worden ist.
Die Arbeit zeigt auf, dass er hierbei zu Fehlplanungen gekommen ist und liefert nicht nur auf verkehrsinfrastruktureller Ebene adäquatere, zukunftsorientierte Lösungen. Grundlage zur Entscheidungsfindung schafft eine detaillierte Analyse der bestehenden Planungskultur, die Einbeziehung der vor Ort lebenden Bevölkerung sowie lokale Akteure aus Städtebau und Architektur. Der städtebauliche Entwurf liefert schlussendlich Antworten für ein Split, welches nicht nur Touristenziel, sondern auch eine Stadt für seine lokale Bevölkerung ist.

ABSTRACT

In the last years, tourism in Croatia has flourished. Split with its ancient core is an attractive place for visitors, whose number is increasing from year to year. With the increase in tourists, Split is starting to turn its housing into apartments throughout the city, old houses are being renovated, the number of hostels is becoming significantly higher, and projects for luxury hotels are springing up every day. But in all this, by providing accommodation for tourists, are other comforts provided?
Given the capacity for which Split is planned, during the season, it becomes a beehive, from which it is almost impossible to get in or out. The journey from the entrance to Split to the ferry port and bus station becomes something that takes hours instead of a few minutes. Additional to the already poor infrastructure of the city, the existing bus station can no longer meet the capacity and quality of services for both tourists and locals.
The thesis starts with a detailed analysis of the urban morphology of Split, how the city was created and developed, where the turning point in urban planning took place and why the city is what it is today. It also describes how the northern side was neglected in the planning process and why the existing bus station, other than originally intended, was built in the south of the city.
The work points deficits in recent planning processes and finds more adequate and future-oriented solutions, not only on an infrastructural level. A detailed analysis of the existing planning culture, the inclusion of the local population and local actors from urban development and architecture create the basis for decision-making of the project. The urban design provides answers for Split, which for once is not only a tourist destination, but also a city for its local population.

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SPLIT THROUGH MY EYES

Architecture is a social act and the material theater of human activity
- Spiro Kosfot

"Cili je Split rascvala grana,sunčani lipi cvit mediterana."
- Oliver Dragojević

Fig. 1-9. *Little moments in Split*

#luka #brodovi #zalazaksunca #riva #palme #kavasguštom #stariSplit #kamen #more #valovi #vjetar #galeb #škure #maslina #vino #skale #uskiprolazi

#harbor #ships #sunset #waterfront #palm #coffeewithgusto #oldTown #stone #sea #waves #wind #seagull #shutters #olive #wine #stairs #narrowPassages

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TOPIC

Design is not just what it looks like and feels like. Design is how it works.
- Steve Jobs

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The topic is divided into three segments. In **the first part** comes a **theoretical introduction** that explains in detail where the location is and what is its unique historical feature through which we know the city of Split as it is today. The key parameters that were needed to understand the further elaboration of the paper are briefly described. After that, in **the second part**, there is an overview of all the necessary detailed **analyzes** that directed the work towards the final goal. Through the results of analyzes and insight into certain potentials, the further course of work was defined with the search of all key information. The topic is particularly important in that negotiations are underway between two suitable locations. **The third part** of the statement is **the urban strategy**, presented through the phases of the proposed project solutions. Specific, different solutions define the location, giving it a new meaning, positioning the station and introducing new functions and potentials aimed at developing the future of the city while omitting the previous issues.

Fig. 10. *Picture of the old town of Split*

GEOGRAPHY

Croatia

Capital:	Zagreb
Official language:	Croatian
Surface:	123. by size
-total:	56 538 km²
-Water (%):	1.09%
Population:	124th by size
-total (2011)	4 284 889 (descending) [1]

Fig. 11. *Map of Europe*

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GEOGRAPHY

Split

County:	Split-Dalmatia
Surface	
-total	79 km²
-urban settlement	25 km²
Population (2011)	
-in total	178 192
-total density	2255,59 residents / km²
Urban settlements	8 settlements
City Day	May 7
Guardian	Holy Domnius [2]

Fig. 12. *Map of Croatia*

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Bus terminal Split
District: Bačvice
Adress: Obala kneza Domagoja broj 12 [3]

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Fig. 13. *Map of the city of Split*

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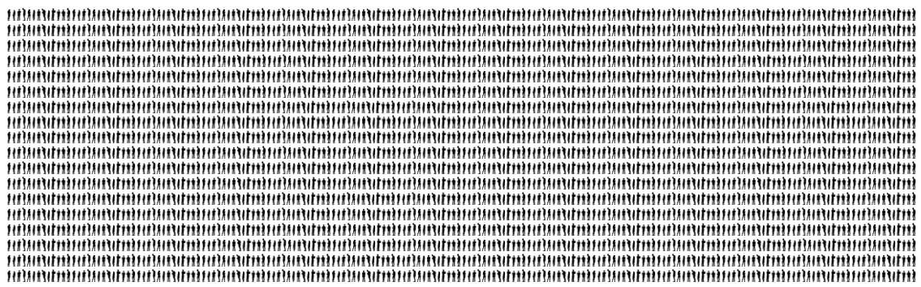
S P L I T V I E N N A

178 192 residents

2,8 million overnight stays by tourists per year

1 867 582 residents

16,48 million overnight stays by tourists per year



S P L I T V I E N N A

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INTRODUCTION

Ispod sunca zlatnoga blista riva najlipša
Na planeti malena, al' u srcu najveća
Puna duša radosti kad ti šapnem
Grade moj

- Oliver Dragojević

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The city of **Split** is the **largest city in Dalmatia**, the second largest and second most populous city in the Republic of Croatia.
According to the 2011 census report, it belongs to the Split-Dalmatia County with 178 192 inhabitants. Split is **the second largest Croatian trading port** and **the largest passenger port in Croatia**. It has an area of 79 km2, of which 25 km2 belongs to urban area. In the city center is the **Diocletian's Palace** from the 4th century (under **UNESCO protection** since 1976), which is a globally unique example. [4]

Fig. 14. *Sunset Split*

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FATEFUL YEARS OF THE CITY

The text describes the years that are of decisive importance for Split and its development, the years which shaped it in history and brought some significant changes, and which are also manifested in the cityscape today. The pictures show and describe how Split expanded through its turbulent history and what the most important urban development steps were.

"If a city can be argued that it really came from one house, then it can certainly be said for Split."
- prof. Darovan Tušek

295 - 640 - 1831 - 1914 - 1924 - 1935 - 1951 - 1968 - 2005 - 2020

FATEFUL YEARS OF THE CITY

Year 295.

-Diocletian's Palace

Split was founded in the 4th and 3rd centuries BC as the Greek colony named Aspalathos or Spálatos. In the period from about year 295 to 305 AD, the Roman Emperor Diocletian built here a gigantic palace with which the everlasting story of Split has started. The palace has a rectangular form with two intersecting main roads connecting four entrances, the city gates. The towers located at the corners of the palace gave a great impression of a typical military building. Spalato was the first name used for this new place. In the unfortunate times of widespread migrations, Roman settlers appeared around Salona and Aspalathos and found their safe haven at the Diocletian's Palace. This way the social community of the city of Split was formed. From Salona, the remains of the Salonitian Bishop, Martyr Dominus (cro. Duje/Dujam), were transferred to the Cathedral of the Holy Virgin of Split, and thus he became the patron saint of the city. The city has kept its rectangular form, surrounded with strong walls. [5]

Fig. 15. *Diocletian's Palace*

About 640.

- Middle age "childhood"

Because of the danger of Slavic-Avar intrusions, the people of Salona living around the fortified center found refuge in Diocletian's Palace. This marked the beginning of the development of the medieval city. The buildings within the walls were given new functions in this period (museum buildings became churches, the temple a baptistery, etc.). [5]

Fig. 16. *the development of the city through the Middle Ages*

Year 1200.

Fig. 17. *the development of the city through 1200.*

Year 1300.

Fig. 18. *the development of the city through 1300.*

295. 640. 1200. 1300.

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Year 1500.

Year 1782.

Year 1831.

Year 1882.

The shape of the city was limited by the walls of the rectangular palace. Transport and trade were revived and population growth increased. The city expands towards the western walls and so a suburb surrounded by a drystone wall was created. In this way, the old part was connected to the new, and the architectural wholeness of the medieval split that is recognisable today was completed. In the course of time, part of the city walls were torn down in order to expand and reorganise the city. The long-unused Roman water supply system was restored, gas lighting was introduced and a number of public buildings were erected. Roads and railways were laid out. [5]

Fig. 19. *the development of the city through 1500.*

Fig. 20. *the development of the city through 1782.*

Fig. 21. *the development of the city through 1831.*

Fig. 22. *the development of the city through 1882.*

1500. 1782. 1831. 1882.

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Year 1914.

- Petar Senjanović's city plan

The city continued to expand to the north (Poljud) and east (Zenta Bay). The idea was to create two trading ports and thus connect north, west and south. The western port should have a pincer-shaped pier. However, the plan had one major disadvantage: it could not protect the nearby residential areas from flooding. [5]

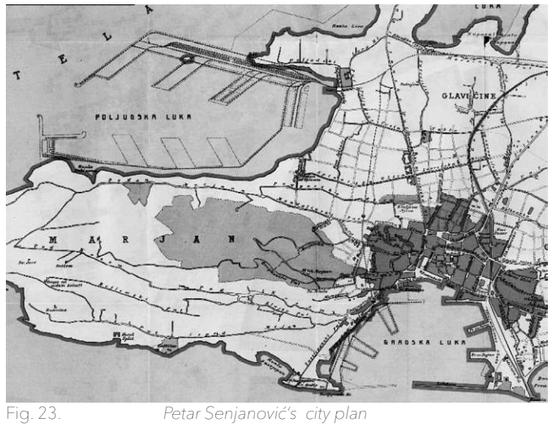

Fig. 23. *Petar Senjanović's city plan*

Year 1914.

Fig. 24. *The city map from 1914.*

Year 1924.

- W. Schürmann's regulation plan

The German architect Werner Schürmann entered the international competition for the development plan of the city of Split in 1923 and won. In September 1924 he came to Split to draw up a new Spatial plan. The concept of the plan was of a Mediterranean city with closed spaces and winding alleys that are adapted to the terrain so that the implementation costs can be reduced. It was planned to expand the districts to the east and north. The main train station was to be built in Kopilica, a commercial port in Poljud, and the industry in the Lora peninsula.
Year 1935. [5]

Fig. 25. *W. Schürmann's regulation plan*

Year 1935.

- Development of the regulation plan

There were also areas that were expanded beyond the scope of the Schürmann Plan; for example, a new trading port was not built in Poljud, but in the Vranjica Basin (today's northern port). [5]

Fig. 26. *Development of the regulation plan*

1914. 1924. 1935.

Year 1941.

Fig. 27. *the city map through 1882.*

Year 1951.

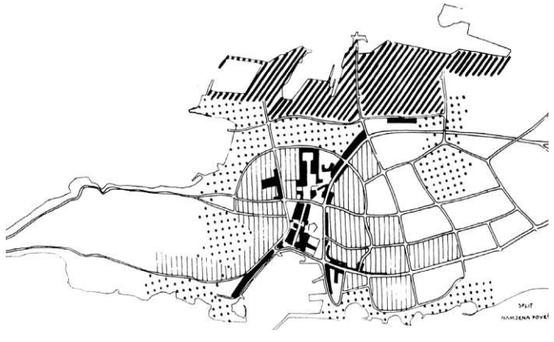

Fig. 28. *Zoning plan from 1951*

Year 1951.

- "Directive basic" plan

After the Second World War, there was a great increase of the population that initiated mass housing construction. The first collective forms of living (so-called social housing) were erected. The city expanded at first to the north, and then defined the construction in the entire "ring" around the former city (Bol, Gripe, Skalice-Glavičine, Table, Blatine-Škrape, etc.). A new development plan was acquired and according to it, the northern part was intended exclusively for industrial development. [6]

Fig. 29. *Emergence of new settlements*

Year 1968.

-Split 3

To the east, Split 2, a district with multi-storey buildings, was built, and further east, Split 3, a top urban development and architectural realisation. [7]

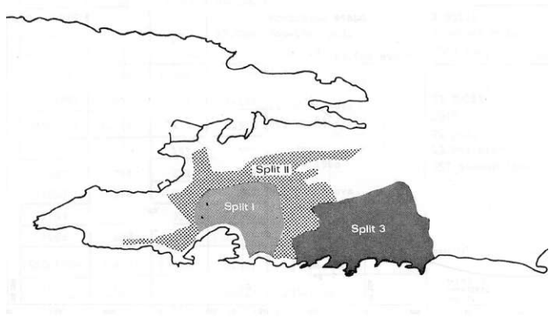

Fig. 30. *Split 3*

1941. 1951. 1968.

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Year 1978.

- Master plan + Mediterranean Games

The creation of the new plan had started in 1967 with more than 25 different studies. There was a need for a specific mechanism to coordinate and harmonise the existing processes and to revise them. At the same time the plan was being drawn some new buildings were created for the Mediterranean Games (Olympic Stadium Poljud; Swimming Pool Poljud; Gripe Sports Center and Koteks Sopping Center). The development of the GUP (General Urban Plan) was conducted in parallel with the construction of key buildings for the needs of the Mediterranean Games.. [7]

Fig. 31. *Coverage of the master plan 1978.*

Year 1985.

Fig. 32. *the city map from 1985.*

Year 2005.

- General Urban Plan 2005

The General Urban Plan for the city of Split has finally been adopted. An intensive increase of investments has been noted. The University Campus was being built in Visoka, and after completion, for the needs of the Handball Championship of 2009, the Spaladium Arena was constructed. In a broader area and the immediate vicinity as well, the number of residential units has increased. Residential construction is marked by individual investments that are in accordance with the Comprehensive Regulation Plan (DPU) and are justified with a Location permit. It often occurs that new buildings are interpolated in empty plots and open spaces that "still haven't found their finite purpose", all to finish construction of the neighborhoods planned and started in the Socialist times. [8]

Fig. 33. *Areas of master plan development 2005*

Year 2020.

- Proposed master plan 2020

The master plan (study) for urban renewal and development of Split has been completed. It forms the development of the East Coast and Kopilica, which is the basis for a systematic and strategic urban planning of the city over the next 50 years, taking into account the needs of the residents and visitors of Split. [9]

Fig. 34. *3D view of the proposal of the master plan zoned to the northern coast of Split*

1978. 1985. 2005. 2020.

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2 9 5 • Diocletian's Palace

(about) 6 4 0 • Development of the medieval city

1 8 3 1 • first cadastral plan
1 8 6 2 • Locatti's first city map (not preserved)

1 9 1 4 • Petar Senjanović - official city plan

1 9 2 4 • Werner Schürmann- new regulation plan of Split

1 9 2 9 • Split, abruptly development and build

1 9 3 5 • Development of the regulatory plan

1 9 5 1 • Basic "Policy" plan - zoning

1 9 6 8 • Split 3

1 9 7 8 • Master plan + Mediterranean Games

2 0 0 5 • Master plan 2005

2 0 2 0 • Master plan 2020

** The pictures aim to show which part of Split developed, in order to notice its growth, the manner and direction in which the present structure of this city was created. For this reason, the legends are not further described.*

Fig. 35. *Saint Domnius Bell Tower*

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While reviewing the historical development of Split, it was concluded that ever since the 18th and 19th centuries, the city was intended to expand towards all the coasts of the peninsula. This idea is especially visible through the implemented urbanisation of 1914 and 1924, when it was proposed that the main railway station and a new center be in Kopilica. Year 1951 was a crucial year that determined the fate of what we see today in the area of Kopilica. From that point, Split no longer develops concentrically around Diocletian's Palace, but its development moves longitudinally along the southern coast of the peninsula. The northern zone is thus neglected and to this day remains almost unchanged and largely undeveloped. The given data and an overview of the history of urbanisation provided the basis for proposing a future idea that would be based on similar proposals.

Fig. 36. *Waterfront Split*

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THE HISTORY OF TRAFFIC

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The first known roads connecting the existing settlements appear during the rule of the Roman Empire where today's territory of the state was divided into two large provinces "Dalmatia" and "Panonia". More than 804,672 kilometres of Roman roads were built. After the collapse of the Roman Empire, there was a reduced development and deterioration of roads that no maintenance.
Throughout the Middle Ages, no new roads were systematically built, but the people of that time traveled along the neglected remains of Roman roads and caravan routes.
A significant period in the history of road construction is during the Habsburg (Austro-Hungarian) monarchy, where the remaining paths grew into famous roads of the time, and the French administration of Dalmatia, during which significant and faster road construction began.
During the 20th and 21st centuries, the Republic of Croatia gradually modernised its road network, thus connecting all its areas, and merging into European traffic routes.
During the existence of the Roman Empire, the territory of the Republic of Croatia was divided into 2 provinces "Dalmatia" and "Panonia". The Romans built a relatively dense network of characteristic roads in both provinces, which were used for caravan traffic, and they traced them through river valleys and lower hills. The road had curbs, drainage canals, passes, serpentines, overpasses, tunnels and bridges, and the final layer consisted of packed small stones that ended in paving. As a rule, Roman roads were built completely flat, ie as flat as the terrain configuration allowed.
Some of the main Roman roads that passed through the then provinces and connected the then cities are: Poetovio (Ptuj) - Mursa (Osijek) - Sirmium (Srijemska Mitrovica), Aquilea - Tarsatica (Trsat) - Senia (Senj) - Salona (Solin) - Epidaurum (Cavtat) - Shkodra, Emona (Ljubljana) - Siscia (Sisak) - Cibalae (Vinkovci), Salona - Bistue Nova (Zenica) - Sirmium, Iadera (Zadar) - Salona - Narona, Neviodanum (Čatež) - Andautonia (Šćitarjevo)) - Siscia.
The most deserving for the construction of the road network in the province of Dalmatia is certainly Publius Cornelius Dollabella, Roman imperial governor in Illyricum from 14 to 20 (built roads originally connected Salona with the interior of the country, and later built communications along the Adriatic coast).
Less than 7 years, 885 139 km of Roman road was built in a difficult mountain area. These roads laid the foundations for the later very dense road network of the Roman Empire, which will be further upgraded and maintained for a full 400 years and will serve for many centuries to come, and some parts of it are still visible today. [10]

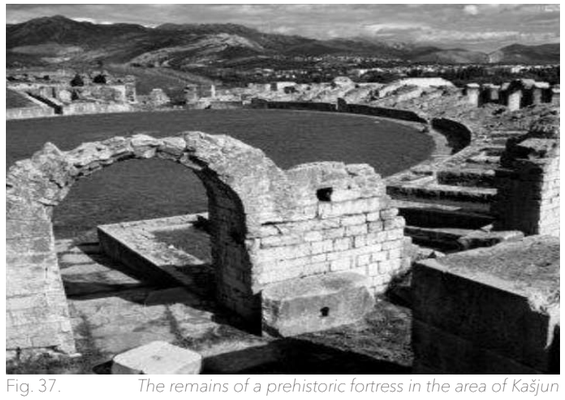

Fig. 37. *The remains of a prehistoric fortress in the area of Kašjun*

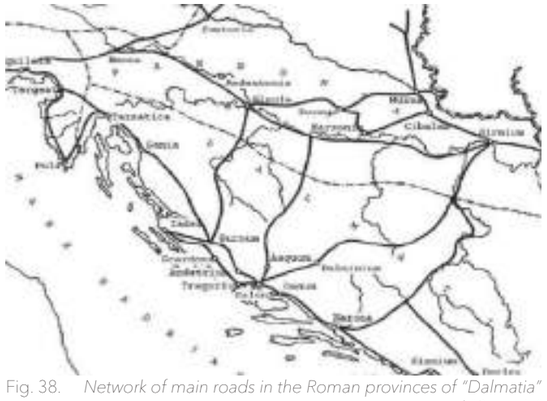

Fig. 38. *Network of main roads in the Roman provinces of "Dalmatia" and "Panonia"*

The railway issue was crucial for the development of Split. The caravan connection with Bosnia and Herzegovina inevitably had to fail, and trade in mineral and forest resources from the interior of the Balkans to the Mediterranean sought new paths. In 1861, the Chamber of Commerce submitted a proposal to the Government to connect Split by rail with Bosnia and the Danube. At that time, there was also resistance to the autonomous administration and the political idea of merging Split with Sisak and Zagreb. At the same time, Diocletian's aqueduct was being rehabilitated, to which a fountain ("Bajamontuša") was built in memory of the Riva. **In 1877**, the Split-Siverić **railway was built** with a branch to Šibenik. Split gets a notch in the railway, and the excavated earth is filled with the New Coast, ie the eastern part of the port. Until this embankment, the sea reached Radovanova Street, where the Buj Shipyard was located. The railway station building was located on Zlodrina Poljana. In 1888, a part of the Lika railway Siverić-Knin was built, and in 1903 Split received the narrow-gauge railway Split-Sinj (Sinjska rera). From September 12, 1903, the narrow-gauge railway from Split to Sinj started operating.
The railway was planned for mid 19th century as the first section of the future railway between Split and Sarajevo, two trade centers, which at that time were connected by a road traversable in five days. The second section was to be between Aržan and Bugojno. It was part of the then plan to connect the Adriatic ports (Dubrovnik, Metković, later Ploče) with the hinterland and further towards the Central European railways.
On December 21, 1898, its realisation began, almost 50 years after the decision. The last passenger train number 3834 on the Split - Sinj line left Sinj on September 30, 1962. Freight traffic was maintained for some time. The following year, the railway was dismantled, and locomotives and wagons were moved to Gornji Milanovac, and according to some indicators, to the salt mines around Tuzla.
The railway was about 40 km long and had the characteristics of a mountain railway with gradual changes of ascent, with the largest slope of 26.7 per mille (tunnel Mačkovac). In addition to the previously built station in Split, five more stations were built (Vranjic-Solin, Klis, Dugopolje, Dicmo and Sinj) and three stops (Mravinci, Klis-Kosa and Prosik). Subsequently, three more stops were built: in Koprivno and Kukuruzovac, and in the Split suburb of Kopilica. Like the ancillary facilities, the stations and stops were built typically and of stone. In 1906, a new (and still in use) railway station building was built, located between the tracks and the coastline of the eastern part.
In 1926, the ground floor building of the customs house was built on the root of the pier Sv. Petra. The first floor of the ground floor and the porch on the east side were upgraded in 1929 according to the project of architects Fabijan Kaliterna and Alfred Keller. In the same year, the coastal area in front of the historic center of Split (today's Riva) was asphalted. [10]

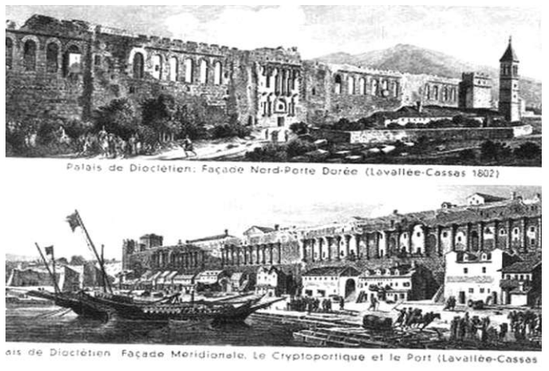

Fig. 39. *North and south sides of Diocletian's Palace (1802)*

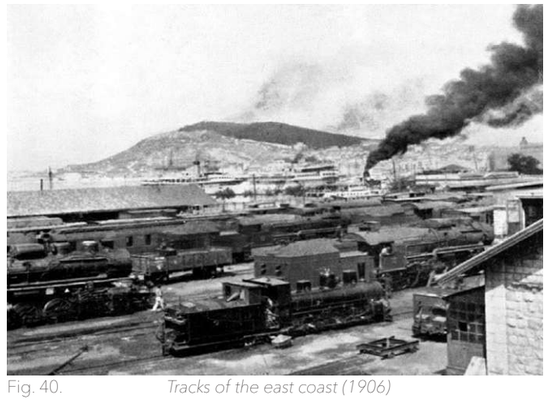

Fig. 40. *Tracks of the east coast (1906)*

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World War II halted the development of the city and many significant buildings were destroyed. Between 1945 and 1947 a great action of clearing the ruins caused by the allied air attacks (1943-44) was carried out. The area of the city port and railway station was particularly damaged, which was the main goal of the bombing. Sunken ships are being removed from the waters of the City Port. In 1946, a small park was arranged on the site of the former Port Entrance and a wide direct connection between the Riva and the station was made at the site of the old dungeons along with a branch to the railway bridge, in proximity to the bell tower of the destroyed church of Sv. Peter, which established a quality connection between the east coast and the city center. In 1948, the bus company "Promet" started operating, with the aim of organising urban and suburban traffic. The first historical beginnings of the station were recorded there. The work started with 12 buses that were in a dilapidated condition and soon the transportation had to be suspended. In 1953, the company was assigned the current location of Split Pređgrade, where in 1962 a building for vehicle servicing services was built, which still exists today. The station later gets a new temporary location where it is currently located.

Fig. 41. *Waterfront of the city of Split (1929)*

Between 1928 and 1929 a new main street through Lučac – the King Zvonimir Street - was laid out and arranged. Before the construction of this street, the traffic went along the former Končarova Street and came to Poljička cesta by a detour. In the period of twenty years between the two wars, a lot was done in Split in communal equipment and infrastructure: roads, streets, electrical and gas installations, water supply, sewerage and green areas. The Banovina road Solin-Split-Omiš passed through the territory of the city, which served as an entrance to the street network through important roads. In the post-war years, the existing streets were first renovated. In 1930, about thirty of them were widened, and even then intensive asphalting began. In 1932, in the Supaval bay in the north, the shipyard "Split" was opened, one of the main ones on the Croatian coast. It expanded rapidly and larger ships were built in it. The new northern port was very important, not only for the economy of the coast, but also for the whole country, and especially for the spatial zoning of Split. In the 1950s, all freight traffic was diverted to the North Port. In the category of regional ports, the port of Split had the slowest increase in traffic. The reason is the non-existent railway network with a gravitational area. Connections with the hinterland are good but not enough. There is a lack of a railway connection with western Bosnia and traffic is stagnating. Of particular importance for the progress of tourism is the completion of the construction of the Lika railway, which connected Split with the north of the country and Europe. It enabled the supply of cereals from Slavonia to Split and the Dalmatian area and gave Europe and the north its domestic products such as fish, wine, oil and vegetables. [10]

Fig. 42. *Split shipyard in the 50s of the 20th century*

In 1964, trolleybus transport was introduced on the route from the city coast to Solin. Due to frequent interruptions caused by the inexperience of the driving staff, as well as the poor condition of the roads in the Solin basin, trolleybus transport was abolished in 1968. From 1957 to 1958 a 35.30-meter-high tower topped with a glazed prism - the "Pomorac" memorial lighthouse on Cape Katalinića briga was erected on the plateau. The lighthouse is the first new post-war vertical in the city's silhouette and is a registered cultural monument. At the same time, the building of the railway station in the city port is being adapted according to the project of architect Marko Markovina. The gradual removal of the railway tracks on the stretch of the Strossmayer Coast - the Pier of the Proletarian Brigades begins, and the platforms of the railway station are paved with granite blocks. At the same time, the main bus station was moved from the previous location on the "Workers' Promenade" to the area of the City Port. **On the eve of the Mediterranean Games, the only subway station in Croatia was built in Split.**
As part of the covering of the railway on the stretch from the City Port to Kopilica (1852m), a station for the high-speed city railway, 20 meters wide and 100 meters long, was built. Entrances were made from all four sides of that stop, one next to the Court building, the other on the very edge of the parking lot near the Svaguša confectionery, the third and fourth next to the School Polyclinic. They are ready for all services but the station is closed with prefabricated walls waiting for the time when someone will put it into operation. By the way, the attempt to introduce a suburban railway in early 1993 on the route from Split to Kastel Stari ended ingloriously in the fall of 1994. Reconstruction of the West Coast began in 2013, after a competition for the first prize of the Zagreb author team 3LHD. Today, the area of the east coast is stagnantly unenviable, which is why it is necessary not only to propose adequate interventions, but also to start the necessary reconstruction as soon as possible. In 2001, more than 9 years after the war operation "Storm", the Una railway was opened to traffic with 257 km in Croatia and 135 km in length in Bosnia and Herzegovina. [10]

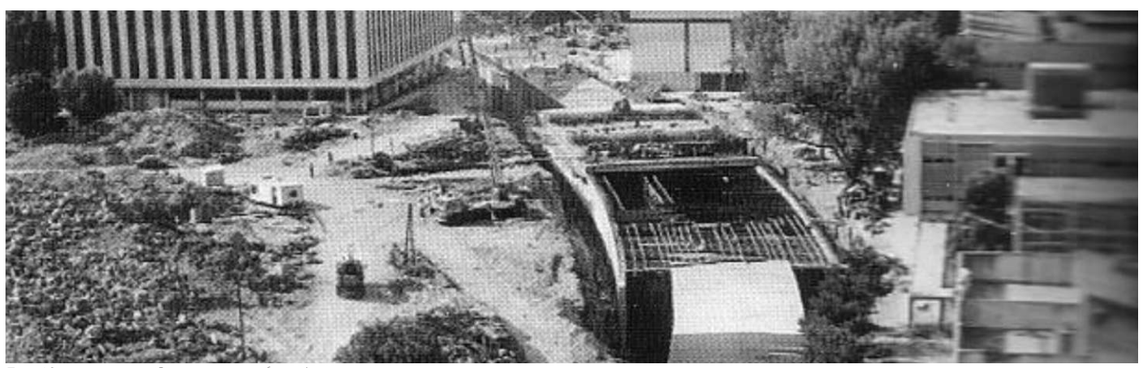

Fig. 43. *Construction of a subway station*

**The rest of the traffic history continues in the analyzes so that certain things can be shown on the maps..*

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ANALYSIS

"Der beste Weg, die Zukunft vorherzusagen, ist, sie selbst zu gestalten."

- R. Buckminster Fuller

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Fig. 44.

Fig. 45. *Ferry port of Split*

Fig. 46.

Fig. 47. *Railway*

Fig. 48.

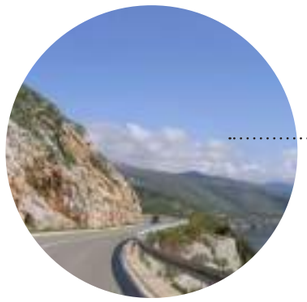


Fig. 49. *State road (D8)*

Fig. 50.

Fig. 51. *State road (D1)*

Fig. 52.

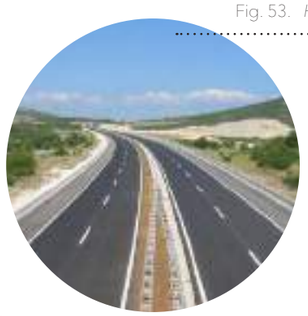
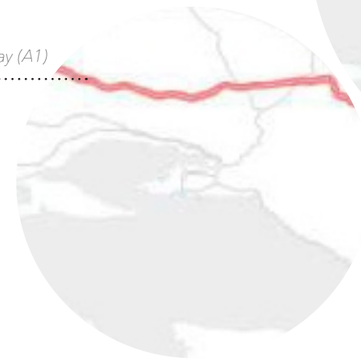


Fig. 53. *Highway (A1)*

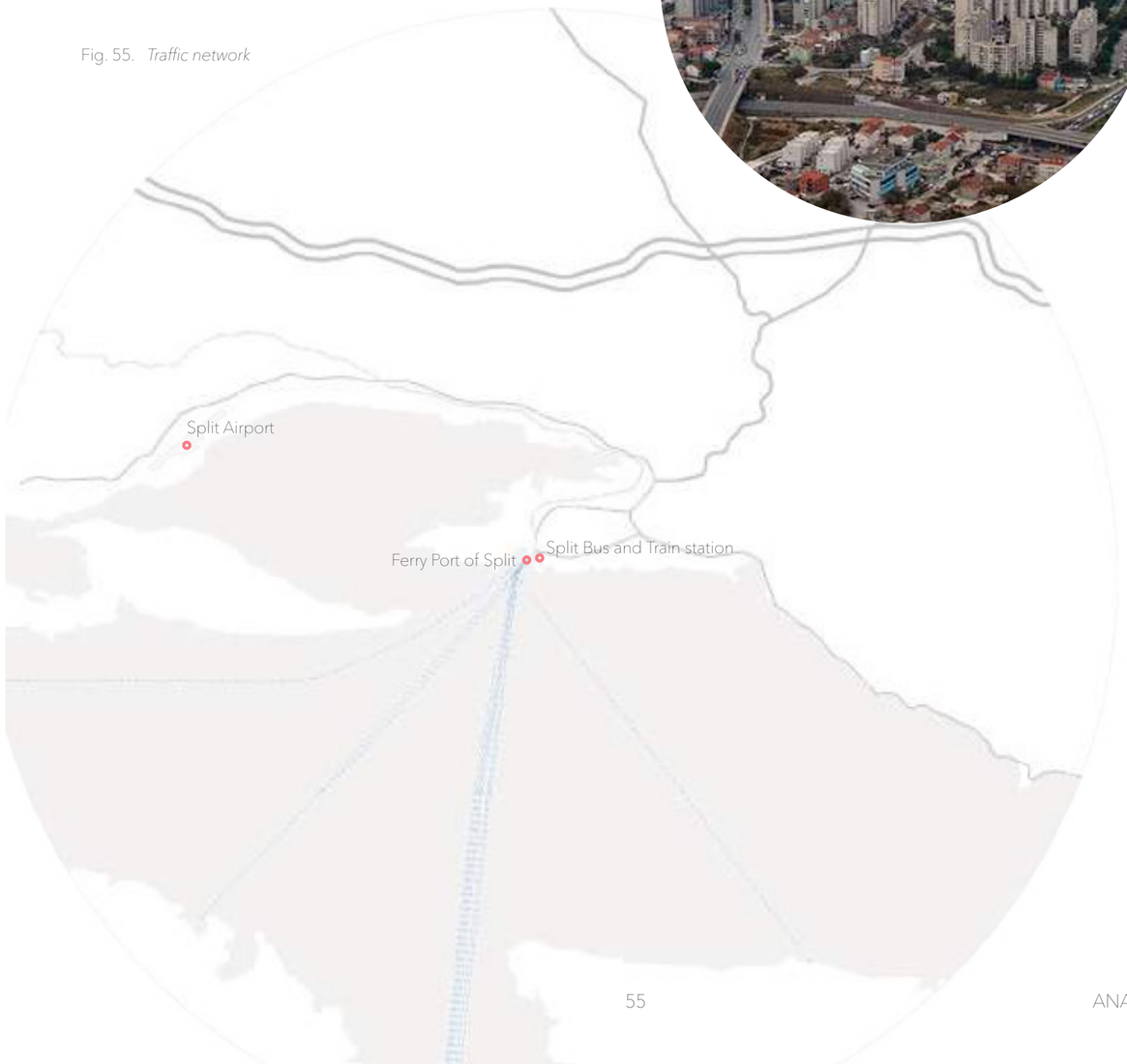


TRAFFIC NETWORK IN SPLIT

Split shares its sea connection with numerous islands in the surrounding area, and Italy on the opposite coast of the Adriatic. All connections end in the eastern port of Split (Fig.36 and 37..).
The railway connection is realized by a line that passes through Croatia coming parallel to the Adriatic highway and terminates in Split (Fig. 38. and 39.).
Split is interconnected with three main directions, namely the coastal direction in the south and north, and the direction in the interior through the Kliška gate. The coastline is connected by the Adriatic Highway (Fig. 40. and 41.).
At the entrance to Split, the Adriatic Highway forks further into the state road D1, which goes vertically into the hinterland (Fig. 42. and 43.).
In parallel with the Adriatic state road, in the hinterland the A1 highway was newly built, which connects Split with the rest of the country, which makes it qualitatively connected (Fig 44. and 45.).
All this infrastructure makes one global transport network of the city of Split (Fig 46. and 47). [10]

Fig. 54.

Fig. 55. *Traffic network*



TRAFFIC NETWORK - Roads

The basis of the road traffic system of the Urban Agglomeration of Split is the A1 highway, the state road D8 Trogir - Solin - Split - Omiš and the network of main city roads.

The first link on the north side of Split is the state road D1 and D8. They form the main connection with the A1 motorway, which is also known as Dalmatina or King Tomislav Highway. It was built in the 70s of the last century. It connects Zagreb, Karlovac, Gospić, Zadar, Šibenik, Split, Ploče and will soon continue to be built as far as Dubrovnik and across the Pelješac Bridge, where works are still in progress.
The A1 motorway is the longest road in the Republic of Croatia. Due to the large number of junctions and the large distance of the highway from the city center, there is an increase in unnecessary intersections of traffic flows. When we take into account the height difference and the number of junctions between the highway and the wider area of the city of Split, the city of Split is one of the most unfavorable cases in relation to all urban areas in Croatia. The state road D8 is also the main road connecting the northern and southern Adriatic. It stretches along the Adriatic coast and is therefore called the Adriatic Highway or the Adriatic Tourist Road.

It stretches 643.8 km long and was built in the 50s and 60s of the 20th century.
On the section Split-Omiš, the permeability of the state road D8 (Adriatic Highway) is below the need. According to Hrvatske ceste, the average summer daily traffic (PLDP) in Storbeč is 63,200, and the annual (PGDP) 52,273. One of the more important problems is the difficult access to the city ferry port of Split. The capacity of public transport is insufficient, in terms of infrastructure (garages, stops) and rolling stock, and the operating system. [11]

Fig. 56. *Adriatic highway (1965.)*

Fig. 57. *Adriatic highway (today)*

Fig. 58. *Road traffic map of the Republic of Croatia*

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TRAFFIC NETWORK - Railways

The railways in Split are in a relatively good function but they need to be repaired and improved for the future. Split has a railway line that enters deep into the city and ends with a tunnel leading to the south coast where the current station is located.

In order for the railway infrastructure to be developed and used in the future, it is crucial to build a second track, equip it with modern control devices, and electrify the railway.

From the center of Split where the station is located to Split Suburbs, the railway is two-track, while the next 18 kilometers to Kastel is the old single-track railway.

The suburban railway from Split to Trogir uses a 14 km long line that goes to the Kambelovac Bridge. There are three phases for the reconstruction of suburban traffic from Split to Trogir, which include arranging platforms, access roads and stops, and electrifying the railway. Further, the railway from Split to Stobreč and further to the TTTS was to be built in 2015, it is estimated that the load should be from 30,000 to 40,000 passengers, transport would be realized by buses and rail with a distribution of 80 to 20%. The railway should be with stations from Split-city via Firule, Smrdečac, Mertojak, Lovrinac, Sirobuja, Stobrec, TTTS-1, TTTS-2, All external transport lines to Split end in the center.
Unfortunately, the project never went further into implementation.

The activity of HŽ Passenger Transport is primarily the provision of public passenger transport in domestic and international rail transport. This means connecting by rail urban centers and local communities in Croatia with metropolitan and other urban centers in Europe and mass transport of passengers within larger cities and suburbs. Connecting county / regional centers with each other, as well as with local communities (smaller cities and municipalities) in the entire area of the HŽ network by trains of high traffic and commercial rank, thus forming services tailored to business travelers with a focus on travel time and providing additional services in accordance with the needs of users in a particular segment.

Today's railway is not in a commendable function, due to poor maintenance and lower quality service, other means of transport have taken a bigger role, so rail transport is almost neglected.

The railway line from Split extends further inland.
Croatian Railways has a network that connects all major cities in the Republic of Croatia and local areas where there is a possibility and need for such transport. Prices are acceptable to all social structures of potential transport users.
The connection of the Croatian Railways is further connected with the metropolises of neighboring countries and the centers of Central and Western Europe by trains of high traffic and commercial rank, and the attraction of transit traffic between Western and Southeastern Europe.
[12]

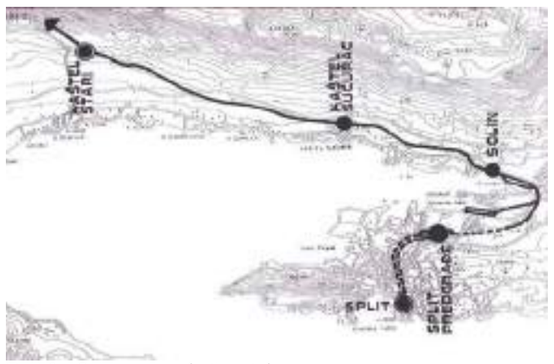

Fig. 59. *Current state of railway infrastructure*

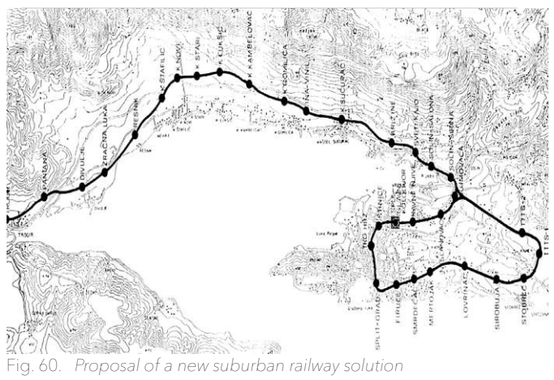
Fig. 60. *Proposal of a new suburban railway solution*

Fig. 61. *Railways map of the Republic of Croatia*

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Fig. 62. *Split air connection with Europe*

Fig. 63. *Airports in the Republice of Croatia*

The Republic of Croatia has 9 busy airports. On the large map on the left, the size of the icon depicts traffic flow from the largest to the least.
In 2019, Franjo Tuđman Airport had the largest traffic count (3,435,531 passengers per year), followed by Split Airport (3,301,930).
It is followed by Dubrovnik Airport (2,896,227), Zadar Airport (801,347), Pula Airport (777,568), Rijeka Airport (200,841), Osijek Airport (46,361), Brac Airport (25,184), if The total traffic of Croatian airports for 2019 was 11,484,989 passengers, according to which we conclude that Croatia is a very attractive and busy country with developed air traffic.

Split International Airport had a turnover of 2,286,987 passengers in 2016 (an increase of 17.1% compared to 2015), and from 2012 to 2016 the number of passengers increased by 60% (an average of 15% per year). The traffic is extremely seasonal, from the beginning of May to the end of September 83% of the traffic is realized. It is connected to most major cities across Europe, by direct connection, while outside European flights are operated on the principle of transfer and combination of a number of airlines.
Split Airport is one of the nine international airports in Croatia. It is located in the area of Resnik west of Kastel Stafilic, 6 km from Trogir and 25 km from Split. After the "Franjo Tuđman" Airport in the capital Zagreb, it is the second busiest airport in the country.
It is open to the public on November 25th, 1966. Turnover grew from year to year, except in 1988 when it was closed due to the economic crisis, and 1991 due to the war. In the early 2000s, the port of Split experienced the peak of summer activity when it had to expand due to passenger capacity. It happened in 4 phases.
The first two phases started in 2009 and 2017, while the 3rd phase started last year, and the end of the 4th phase is planned for 2025.
In 2019, SPU Airport counted 3,301,930 passengers, the largest number of which was in July after that in August and June.
The connection of the airport with Split is via the Adriatic highway D1, which can be reached by car, taxi or Split public transport lines number 37 and 38. To date, the number of transport airlines has reached 38, of which 19 run only seasonally. It is important to point out that most airlines have connected flights, so that Split is connected to the whole world through that. [13]

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TRAFFIC NETWORK - Ships, ferries, catamarans

Fig. 64. *Ferries routes (Split) - in season*

Fig. 65. *Ferries routes (Split) - out of season*

We can say that Split is partially isolated because it is located on a peninsula. On the south side there is a ferry port that connects it by sea with Italy, Hvar, Korčula, Lastovo, Šolta, Vis, Brač ...

The ferry port of Split is connected by sea with 6 nearby islands. During the season, ferries run regularly from Split to Supetar, Rogač, Milna, Bol, Jelsa, Stari Grad, Hvar, Vela Luka, Korčula, Vis, Ubli and Dubrovnik. Out of season ferry lines are weaker. Except for international island lines.

The seaport provided additional good transport connections of the City of Split. The passenger traffic of the City Port of Split is dominated by domestic traffic, with about 90% share and the traffic in 2016 was more than 4.9 million passengers and 733,000 vehicles.
Of the ferry lines, the largest number of passengers and vehicles is recorded by the line Split - Supetar (1,242,047 passengers and 290,421 cars), and of the high-speed lines Korčula - Prigradica - Hvar - Split. In the period from 2006 to 2017, all ferry lines recorded an increase in the number of passengers on ferries, except for the international line Split - Ancona. On the other hand, all high-speed lines record a decrease in the number of passengers in the same period. In 2006, a total of 2,530,240 passengers and 601,387 vehicles were transported on ferry lines from Split.

The Republic of Croatia has 6 ports open to public transport of special (international) economic interest for the Republic of Croatia in the cities: Rijeka, Zadar, Šibenik, Split, Ploče and Dubrovnik. Due to more than five thousand kilometres of coastline and more than a thousand islands, shipping is well branched. A large number of ferry and high-speed lines (catamarans and hydrofoils) connect the islands with the mainland and with each other, which indicates a branched network of smaller ports of county economic importance. [14]

LEGEND:
- A port of international economic importance
- A port of county economic importance

Fig. 66. *Ferry port (Croatia)*

TRAFFIC NETWORK - City buses

We can say that road traffic holds a monopoly in transportation and this gives Split the specificity of an urban and suburban market.

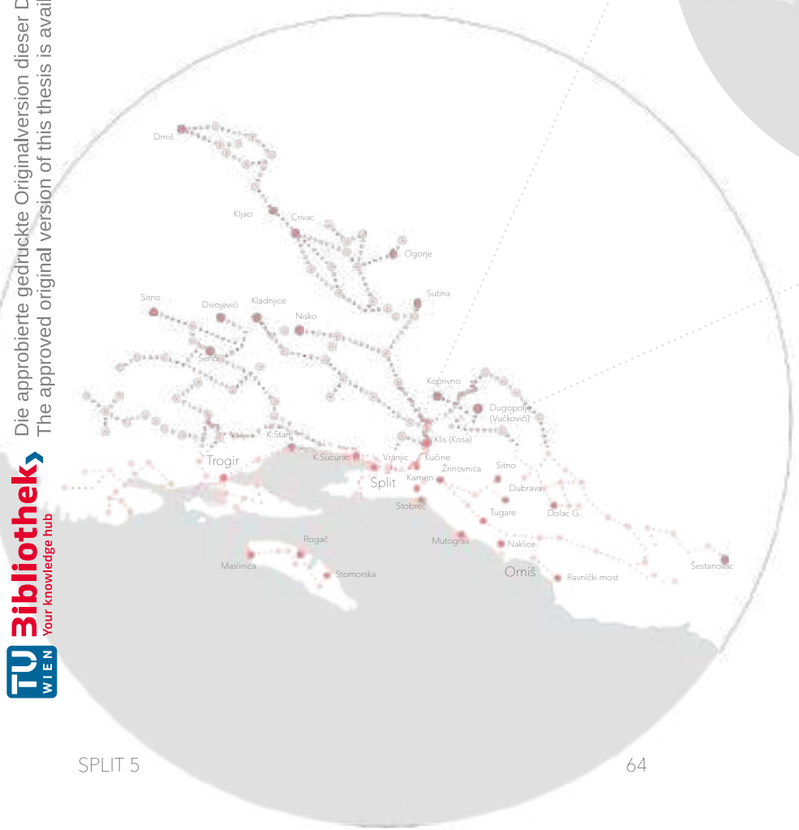
The public utility company "Promet" is in charge of performing city and suburban transport.
They are used exclusively by buses as a mass mean of transportation. It is characterized by unreliability, incoordination, unattractiveness, inaccuracy. In the central part of Split, all lines of the suburban area end.
Buses from Kaštel, Trogir, Drniš and places in the Dalmatian hinterland end at the Sukoisanska terminal, while buses from Stobreč, Dugi Rat and Omiš end at the Lazaret coast.

International traffic flows in from the east side of the port. The map shows the movement of bus lines within the city of Split. Through the line displayed in red, you can see where the significant load and traffic congestion occurs. The public transport system is based in Split, Solin, Kaštel, Omiš, Trogir and Sinj.

Apart from buses, Split does not have trams or trolleybuses as means of transport. Figure xx shows the roads on which the bus lines run, while on the left we have accurately shown bus stops from which we can see that the bus network is relatively widespread and well organized. [15]

Fig. 68. *Last bus stop (Split)*

Fig. 67. *Suburban traffic network*



LEGEND:
Bus line
Bus Stop

Fig. 70. *Bus network (Split)*

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PURPOSE OF SURFACES

We are at a crossroads of opinions on whether it is necessary to replace the existing station with a new one, should it get a new location and move to another environment, or thinking that the most adequate solution in this case is to keep the existing one with minor corrections, which "easily" solves the problem.
The following maps consider the purpose of the city's areas in order to see the possible positioning options for the development of a new station. An overview of the areas, classified by grouping and how it dominates the city, was considered.
We can see that the green areas dominate the western part, the north is occupied by industry, the southern part is mostly developed for tourism, recreation and beaches, while other purposes are mixed throughout the city structure, which certainly gives a good quality. [16]

Fig. 71.

Fig. 72.

Fig. 73.

Fig. 74.

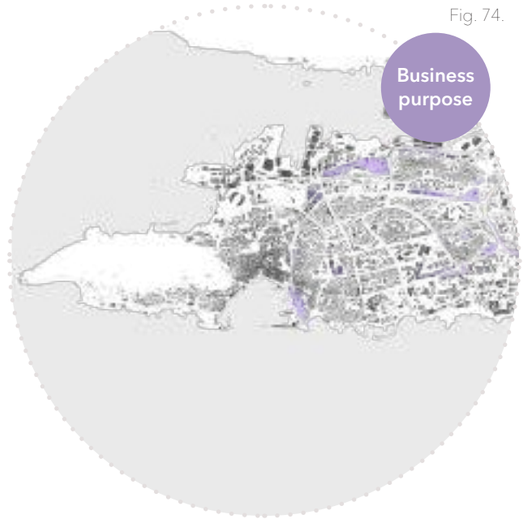

Fig. 75.

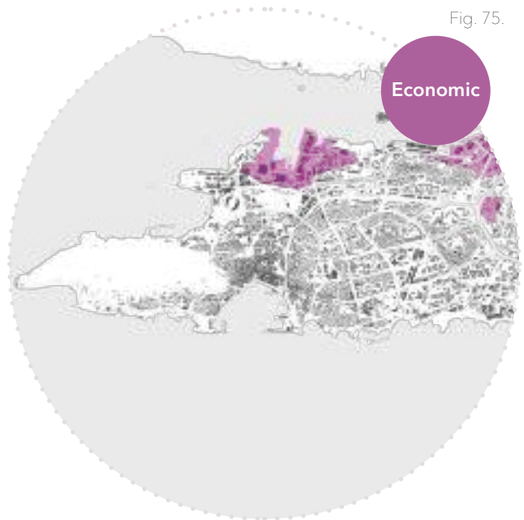

Fig. 76.

Fig. 77.

Fig. 78.

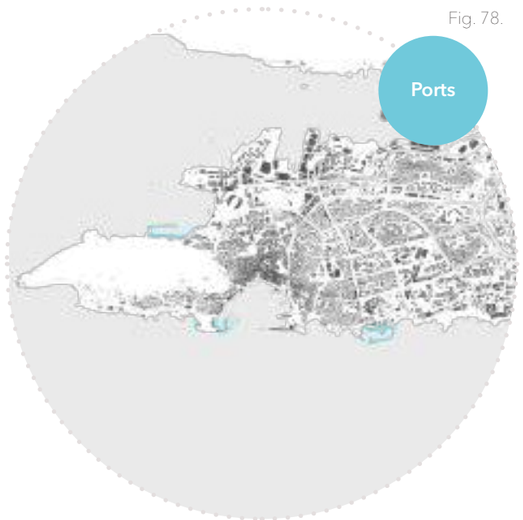

Fig. 79.

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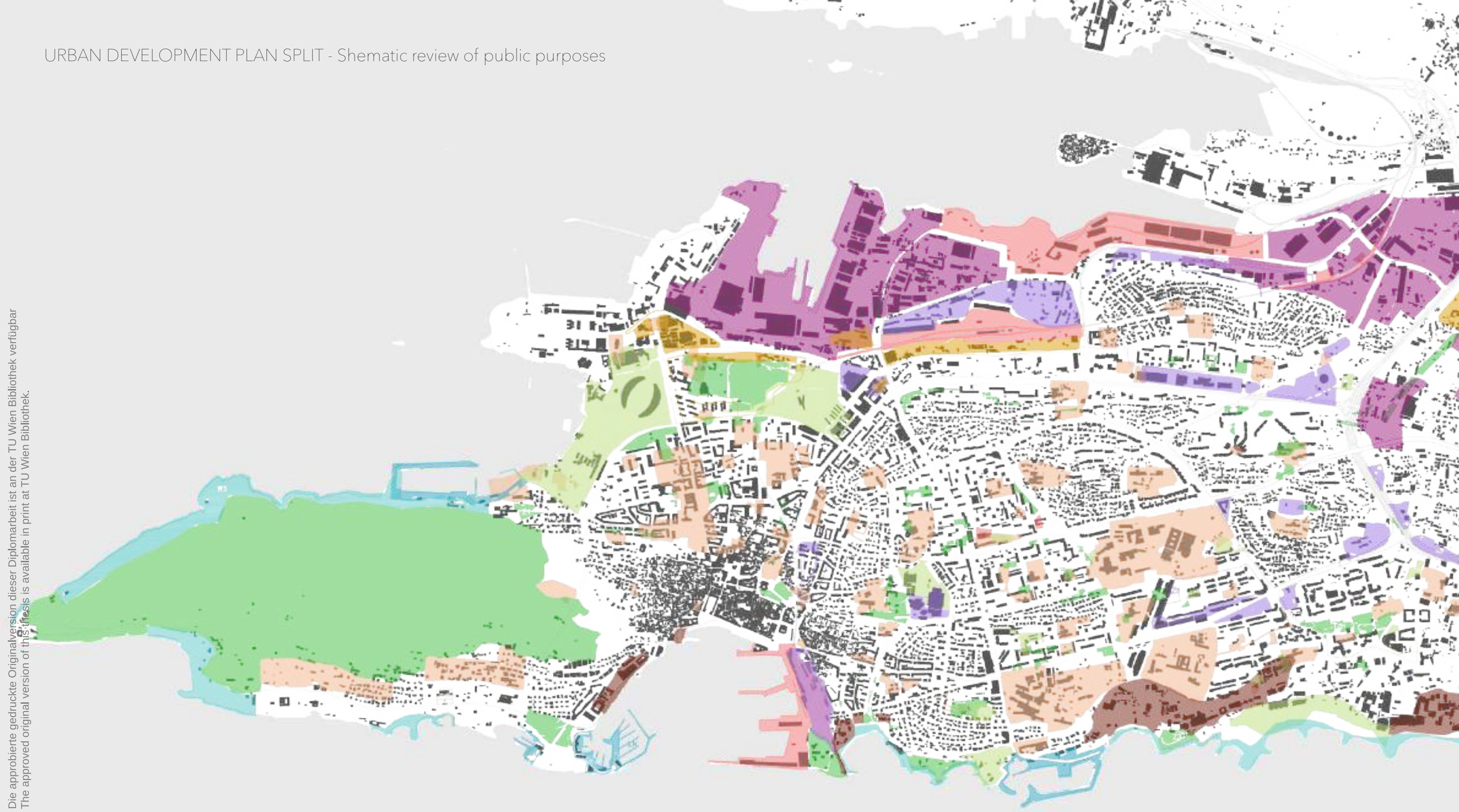

Fig. 80. *Master plan- purpose of surfaces*

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AREAS OF INFRASTRUCTURE SYSTEMS

Areas od infrastructure systems (IS):

IS1 - Port (international importante)
IS2 - Railway (Railway, Bus station)
IS3 - Bus station (international)
IS4 - Postal Centre
IS5 - Water-treatment plant
IS6 - Transformer station 110 / 35kV and more

Fig. 81. *Area of infrastructure systems*

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AREA INTENDED FOR THE STATION

In the previously mentioned text, the historical development, on the one hand we have the northern location "Kopilica" for which fate said a big "NO" in 1951, and gave the opportunity to the eastern part of the northern coast which for years seemed like a much better solution, but during the further development, the location becomes completely illogical and exhausts the resources. Two completely correct and relevant and, again, problematic and non-functional locations found themselves as two dominant parts for station positioning. Where Split would first see the future of its city?
Are all these problems increasing from season to season the answer to one Stop concentrated development of the South? Perhaps this is the ideal opportunity to push all things into a corner, ideal time for Kopilica to finally get his chance, to get started, rebuilt, exploited and moved from the deadlock it has been in since 1951. It is really fascinating to see such a beautiful city, so visited and famous that, in its center, has one large area which when you pass it looks like you are back in some very movie of an underdeveloped region, as it is cut off from the whole city and yet in the wave of all events.

Fig. 82. *Area intended for the station*

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CURRENT STATION

The current bus station in Split is located next to the city center (southern part of Split). The station is also the main terminal for bus transport of passengers in the wider city area. The Poljica road leads to it, which later turns into the Poljana of Prince Trpimir and the Coast of Prince Domagoj. It is located on flat terrain a few meters above sea level.
The ferry port and main railway station are in the immediate vicinity of the station. Such accommodation enables quick and easy communication between passengers. [17]

Fig. 83. *Map of Split*

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Fig. 84.-91. *Current station*

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Fig. 92.-102. *Current station*

The distance of the station from the entrance to the city center (old part, the core of Diocletian's Palace) is about 500 meters, while the ferry port is located at a distance of 170 meters, and the railway station at 82 meters. These parameters clearly indicate a favorable HUB system, which makes the location very attractive and accessible.

The bus station has 6 arrival and departure platforms, with the parking lot located at the rear, north, side, containing about 70 parking places, which for the current capacity of the city and traffic has become quite inadequate. A special problem with the existing station is the organization of the traffic itself. It causes a conflict of traffic vehicles, creates a large crowd and prevents adequate passenger exchange, which is extremely unfavorable in terms of safety. This prevents the accuracy of transportation and lowers the quality of the station. [17]

1. Diocletian's Palace - city center 500m
2. Ferry port 170m
3. Railway station 82m

Fig. 103. *Map of Split Center*

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Fig. 104 Current station

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The city of Split is in a very favorable position in terms of connectivity.
By analyzing the flow of traffic in Croatian and European cities, we conclude that today's cities are quite busy, there are traffic jams, traffic halts are happening all over and the crowds are becoming unbearable. There is noise and air pollution, lack of parking can be classified as one of the significant problems, there is a conflict of pedestrians, cyclists and motorcyclists. On the other hand, public city transport does not provide satisfactory services. We can say that the biggest cause of these problems is the possibility of owning a car, which increases the number of users in traffic, which makes traffic more congested. The current traffic organization of the city has been influenced by the natural and social environment. For prosperity, the traffic position is crucial, so it is not surprising that on the one hand we have a transport infrastructure that has adapted to existing settlements, but today's prosperity of settlements is based on their traffic position.

In the area of the city of Split, the tourist season is considered to be thr period from May to October (with May and October less burdened). At that time, the traffic in Split is on a significant increase compared to the time outside the tourist season, from which we conclude that all traffic issues are exclusively related to the period within that season. Outside the tourist season, road traffic takes place in a very moderate intensity.
During the tourist season, crowds are created by vehicles with the aim of coming to the city center, ferry port or bus station. These crowds immobilize the city and prevent the unhindered use of infrastructure. The quality of services is being lost, which makes tourists dissatisfied, while the quality of life of the inhabitants of the city of Split is also declining.

What causes these problems? Outside the tourist season, Split functions normally, the number of cars meets the capacity that Split currently has, but in the season there is a sharp turnaround. Does this mean that we need to build a bigger station, wider roads, provide more capacity, which will then remain too bulky, deserted at the end of the season, and will cause a number of other problems and investments ?!

The problems that need to be remedied are:
- excessive flow of vehicles in the direction of the city center (during the tourist season)
- traffic solution and its circulation.
- location of the bus station and its optimal capacity

What is the goal?
- traffic solution with unobstructed circulation
- reduction of road travel
- ferry port disburdening
- satisfactory capacity of the station

New problems that must not be created:
- excessive capacity of the station out of season
- developing the central part to a higher level, which would increase the attractiveness and the number of people and traffic vehicles. [18]

Fig. 105. *...wded in season*

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The last concrete investments in infrastructure took place 40 years ago, and we can say that the situation with traffic and parking is on the verge of endurance. The number of registered vehicles in Split is 92,000, and in the county the number reaches up to 220,000. In summer, the load on cars in the entire agglomeration is even higher. Of the 50 people who need to arrive at one destination, 40 use a personal car. This problem should be solved first in our heads and then with adequate car replacements.
The most ideal situation at the moment would be to introduce electric bicycles and better public transport services, this would be the first milestone to reduce the negative image of traffic.

The journey from the suburbs of Split to the center can take hours, there are no lanes for buses and the traffic light system is not adapted. Annually, 35 million passengers are transported in Split and cover about 10 million kilometers. **In order to solve the problem more adequately, it is necessary to put public transport, bicycles, pedestrians and environmental protection in the first place, and to establish that the car is no longer a necessary means.** As a reference example in the Republic of Croatia we can take Dubrovnik, which has a traffic problem given the large number of tourists. Part of the problem has been solved by allowing only the residents of the city of Dubrovnik to park next to the old town, while others have been redirected to closed parking lots where they usually find a place. Another way is that the price of parking is significantly increased along the old core so that it is as inaccessible to people as possible, the goal is that guests do not enter the center at all with their cars but to use public transport. But is the problem essentially solved?

In the following, the diploma thesis will solve the problem of the bus station, its location and the environment in which it is located.
Unfortunately, the current solution of the station does not meet the needs of the city of Split, the location causes a number of problems that are increasing from year to year. Despite the previously introduced measures, the quality of services is still not guaranteed. If the previously mentioned parameters are met, the location that is inadequate for expanding and supplementing quality and capacity will remain
.
When we talk about specific problems we mean:
- transport connection with the station
- infrastructure clog, traffic jams
- a location that is not intended for a bus station, so it is necessary to develop a new solution that will solve the infrastructural problem, but also try to keep as many existing corporate advantages as possible.

A small look ahead can allow us to further develop the situation. What will be manifested and in what way it will be most adequate to solve the problem. All aspects need to be considered and in particular that the world is evolving in a more cumbersome light and that the measures taken today do not mean that they may be relevant tomorrow.
Will traffic regulation really solve all the problems?
The city of Split must think about the near future and provide capacity and quality of services to tourists who come in increasing numbers.

The city of Split is working on improving the city, but the key thing to pay attention to is adequate traffic connections. Split has always been a desirable tourist destination, which created the need to expand the capacity of offers and content. **When we talk about higher capacity, the current location significantly shows us that the station is exclusively temporarily intended**, with an increase in capacity and tourists, the current location would hardly reach the level of improvement and increase of criteria. All given parameters must be carried out through analyzes in order to reach a final solution. [18]

Fig. 106. *Crowded in season*

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KOPILICA - PLANNED STATION

Kopilica is located in the northern part of Split. Prior to the progressive expansion of the city in which it remained unarticulated, the location of the Split Predgrađe freight railway station represented, in a urbanist sense, an isolated location. It is located between two important locations of the city's economic development - the shipyard in the west and the North Port in the east. [19]

Fig. 107. *Map of Split - Kopilica*

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Fig. 108.-115. *Kopilica*

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Fig. 116.-125. *Kopilica*

Today, in addition to the marshalling yard, there are numerous facilities in Kopilica. Most of them found their place in the area in the 50s and 60s of the last century, which characterises them as city services intended for the marginal area of the city. For decades, the area has not been only a marginalised part of the city, but a hole in the mind map of the city of most residents.
Its attractive location makes it one of the most interesting larger locations of the Split peninsula, but despite that, its appearance has remained unchanged to this day.

"Small town atmosphere in the middle of the city; summarising the atmosphere of Kopilica, which nominally belongs to the city district of Brda, but for many reasons enjoys a kind of autonomy. It is not densely populated - only two hundred people from about fifty families make up the everyday life of Kopilica, mostly in houses along the railway and along the road that flows directly to the center of Split.
It is surrounded by Stinice in the north, Brdi in the East and Brodarica in the west. Domovinskog rata Street runs south of the selected area and separates it from nearby Kman.
The area gravitates to Ravni njive and Brdi due to its specific topography." [19]

Fig. 126. / North part of Split - *Kopilica*

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ONE CITY ON TWO COASTS

"Split is obviously conceived as a city on two coasts with concrete green areas to the west of Marjan and to the east of Splitsko polje."

- Ante Kuzmanić

ONE CITY ON TWO COASTS

The first cadastral plans indicate that Split was developing with the aim of being a city on two coasts. One already developed from which the core of the city began and the other yet to come.

"Infrastructure is exactly what makes a city a city, and Split is giving up infrastructure too easily."

"Green areas are the next thing that disappears from the city. With the exception of the park on Mertojak, we have not planned a single green zone in the last century. "

Quotes for Kopilica:

"That plan, in fact, intended that coast for the shipyard and industry, which made it either physically inaccessible or simply unattractive."

"The city never even thought of going out to the north coast"

"A comparison of the cities on the peninsulas shows that a proper grid emphasizes the ambivalence of both coasts and we find such a situation from New York via Zadar to Korčula, but unfortunately not in Split."

"And so today, every elected mayor often utters the famous sentence *"Let the profession decide!"* - and he will already choose which profession should decide what. Urbanism and urban planners have disappeared from that puzzle. "
"(1979) At that time, the railway from Kopilica to the City Port was covered and it was the biggest investment since the construction of Diocletian's Palace."

These are just some of the quotes from the book "The City of Split" by the famous Split architect Ante Kuzmanić, from which we conclude why the northern coast never developed, why the city stopped its development and in which direction it is logical to go further.

Due to the previously mentioned expansion of the city and tourism increase, there was a problem of overcrowding in the city. This was particularly reflected in the area of the east coast where the bus and train stations, as well as the ferry port, are located. Due to the large flow of people, whether it is the inhabitants of the city, the inhabitants of the islands that gravitate to the city of Split or the enormous amount of tourists, this area comes to focus as the most problematic in the city.

Almost from the beginning of the millennium, there has been a certain current of citizens and experts who advocate for traffic relief in the city center. The Kopilica area, which is already dominated by railway infrastructure, is often mentioned as a potential location for the relocation of the main railway station. The ambition of the project itself varies over the years, so it was proposed to relocate the entire terminal with a bus station in this area. In such an intervention, there are two attitudes related to the area of the east coast. One sees the Kopilica railway station as a complement to the future terminal on the east coast, while the other wants to free up the east coast for some new private investment. Some projects went a step further.

The idea of architect Ante Kuzmanić to connect Kaštela and Split with a bridge was first presented in 2007, and was mentioned again in 2017 as part of the election campaign of the current mayor Andre Krstulović Opara. Regarding the relocation of the station, a cost-effectiveness study is being prepared, the announcement of which has been announced for the beginning of 2019. After that, a master plan is planned to cover all traffic problems of the city.
The problem of gentrification in this area is partly due to the relocation or non-relocation of one or both stations. The problem could occur in contact zones with existing facilities, and is closely related to the size of the infrastructure and facilities. As Kopilica is mentioned as an ideal location for quick realization, mostly due to resolved property-legal relations (the area where the project is planned is owned by HŽ-Croatian Railway Operator), the question remains what will happen to private and city plots in the scope and how new benchmarks affect them.

Split from above

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Fig. 129. *North coast of Split*

Industry and railways protected this area and enabled the development of a specific type of housing, uncharacteristic of this area. Of modest dimensions and materials, illegally built or converted buildings have a much more interesting and on the one hand more urban character than individual houses on Sirobuja. Individual housing complexed in a way that borders on collective housing is a model that provides easy identification with the place and connection with the community, which unfortunately we do not find in many natural but also many planned areas of Split. This typology as a model for further development clashes with the initiative of the City, when a couple of years ago, they wanted to relocate firefighters from Kopilica so that the area could be privatized and a housing complex of questionable scale and spatial value built.[20]

Fig. 130. *South coast of Split*

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Fig. 131. *Split Center station*

VS.

Fig. 132. *Split Predgrađe station*

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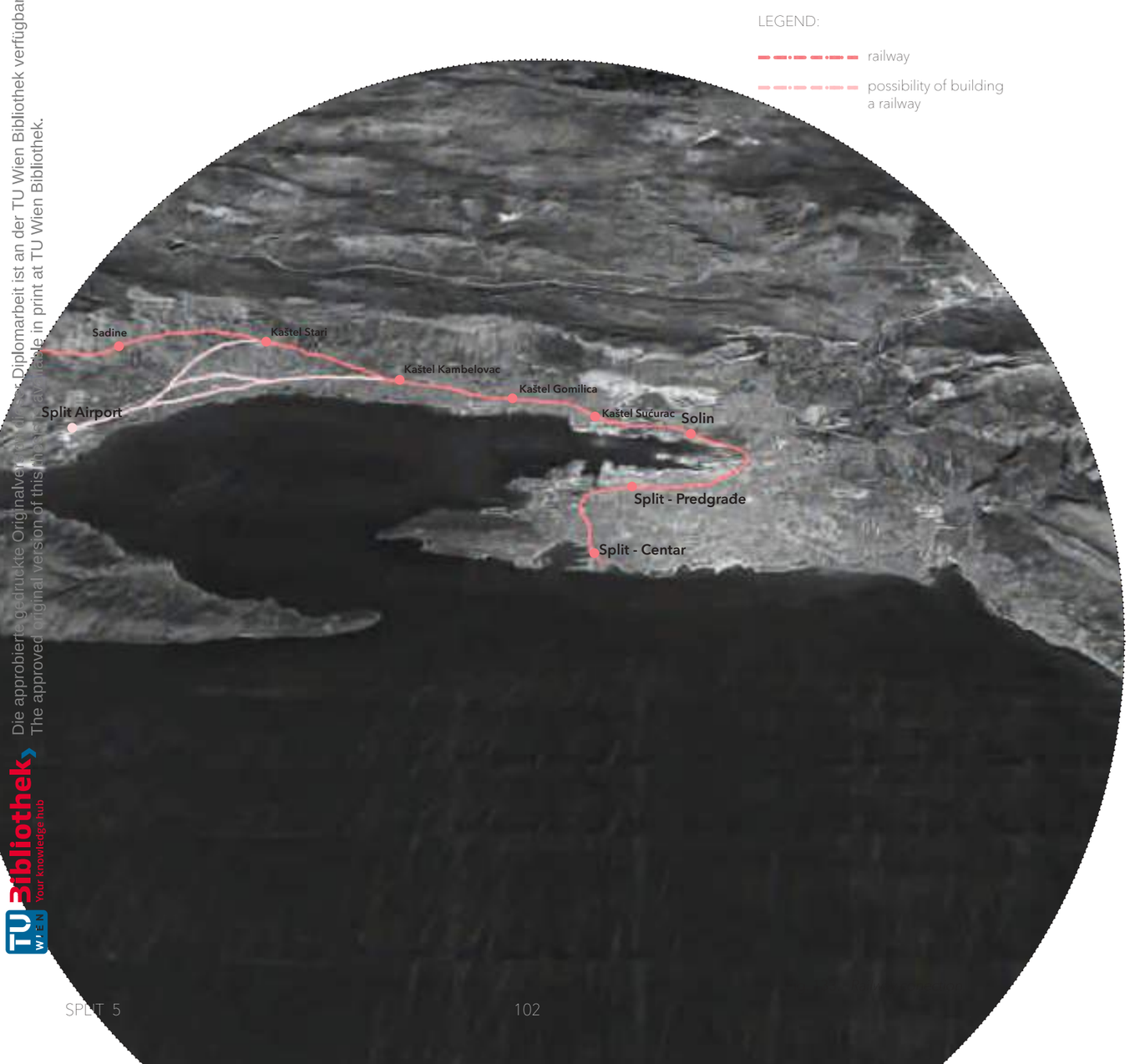
TRAFFIC NETWORK- **railway** connectivity

The railway connects the City Port with the mainland, and has an emphasis on local traffic and the potential for international and state-owned infrastructure is not significant. For years, the use of local railways has been emphasized according to the European model of large metropolises, but unfortunately there are no large and significant investments. The newly formed leadership of HŽ plans to connect the existing railway with the airport, in order to gain a connection between all major hubs.

Rail travel time interval:

1.	Split Centar - Split Predgrađe	4min
2.	Split Predgrađe - Solin	6min
3.	Solin - Kaštel Sućurac	4min
4.	Kaštel Sućurac - Kaštel Gomilica	3min
5.	Kaštel Gomilica - Kaštel Kambelovac	2min
6.	Kaštel Kambelovac - Kaštel Stari	5min



TRAFFIC NETWORK - **road** connectivity

Connectivity with Split airport:

1. Split Airport -Split Centar
   24,5 kilometers (31minutes)

2. Split Airport -Split Predgrađe(Kopilica)
   23,2 kilometers (29 minutes)

Connectivity with the highway (A1):

1. A1 Dugopolje -Split Centar
18,4 kilometers (23 minutes)

2. A1 Dugopolje -Split Predgrađe (Kopilica)
17,1kilometers (18 minutes)

Connectivity beetwin location:

1. Split Center -Split Predgrađe(Kopilica)
   3,9 kilometers (10 minutes)

2. Split Predgrađe (Kopilica)-Split Center
   3,6 kilometers (9 minutes)

Fig. 134. *Connectivity with Split airport*

Fig. 135. *Connectivity with the highway*

Fig. 136. *Connectivity Kopilica with Center and viceversa*

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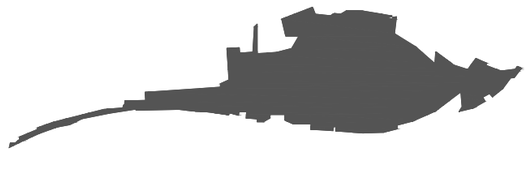
+ Attractive location
+ bus station, railway station, ferry port in one place

- poor infrastructure, poor traffic solution
- the size of the site does not meet future planned capacity



+ Location suitable for the development of a new center in Split
+ location size
+ connectivity

- the ferry port is not directly next to the location

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AND WHAT ABOUT THE INHABITANTS OF KOPILICA?

However, it is questionable how much private capital is interested in reviving the urban values of individual central parts of the city, and how much the construction itself, which brings great profits and is often outside all historical and urban frameworks characteristic of urban cores. All multifunctional complexes built in the center of Zagreb affect the growth of apartment prices in its vicinity, which is undoubtedly related to the process of gentrification.
The life created near the railroad works thanks to its inhabitants. People live in houses, play bocci on the neighbourhood bocci-playground. When it's summer, in the sun, they drink refreshing beer under the canopy they built themselves, and the children play on the improvised playground. On the plateau in front of the Tree of Judah, people from all over the city gather and drive drift races. Some sit on the wall and watch. Does it resemble a public space? Population is a fundamental factor, which through its activity changes social, economic, cultural and other conditions of development.
How do they see Split? Through conversations with people not very well known to me, it was immediately possible to read that these are the hearts that live for Split. The population of Split is a possessive mentality, which is most evident in their love for FC Hajduk and Split, for which they are somehow recognizable, they burn for their city and for what belongs to them. And what when we talk about urbanism and architecture, about the current state in which Split is today? According to the media, Koplica is known for the villains who do not "give" their neighborhood, which from the conversation with them does not sound like that, in fact, they are interested and very open to everything that will make their city better, they agree to all logical and just ideas that will contribute to the further development of the city, as they say "As the profession says, we are for it. If the city is better for us, we will leave our emotions, pick up the most important things and move immediately in the morning to where the city provides us with a new home. " They give their home, the place where they grew up, the place with which they have many memories, for the city, for its improvement and its future progress.

Fig. 137.-141. *Kopilica*

Fig. 142. *Residents of Kopilica*

Fig. 143. *Southern part of Kopilica*

The edge of the city

The southern part of the site is located on the border of the existing city. It is bounded by 'Domovinskog rata Street', along which there are several modernist apartment blocks and a number of family houses.
The street is very well connected by traffic, both with the city center and with the outskirts and the highway. The topographic situation provides a view of the bay and the mountains behind.

Fig. 144. *Northwestern part of Kopilica*

Trade and industry

The north-western area is bordered on the north by a waterfront and on the west by a large shipyard. It is relatively autonomously organized and relatively dense compared to the environment. The connection is still quite efficient, providing a direct road connection leading from the big street in the south into the area.

Fig. 145. *Northeastern part of Kopilica*

Waterfront

The northern area consists of a business part closely related to the port. The southern part of the waterfront is consisted of a green hill, with only very few buildings on it, which forms a boundary between the central and northern part of the site. On the top of the hill, one can have a perfect 360 ° view of the city and the surrounding landscapes. In the eastern part there is an exit to the northern port of Split

Fig. 146. *Eastern part of Kopilica*

Residental area

The eastern area is a slight depression towards the sea shore. Residential units predominate, with a business area in some places. The strictly western side across the street consists of a series of houses that make up the settlements of Brda.

Fig. 147. *Central southern part of Kopilica*

Residential and business

The southern part of the central area consists of residential houses that are located directly along 'Hercegovačka Street'. In the middle of the street there is a parking space through which you can directly get to the train station. At the edges of the area there are some business facilities.

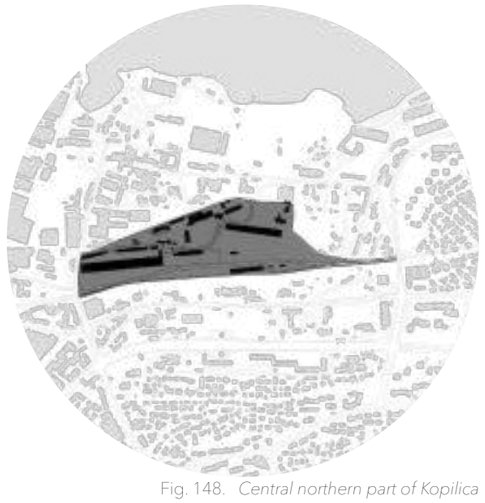

Fig. 148. *Central northern part of Kopilica*

Railway zone

The northern area of the central part consists of several hotels, business facilities. Almost the entire area is divided by a large zone of unused railway tracks.

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Fig. 149.

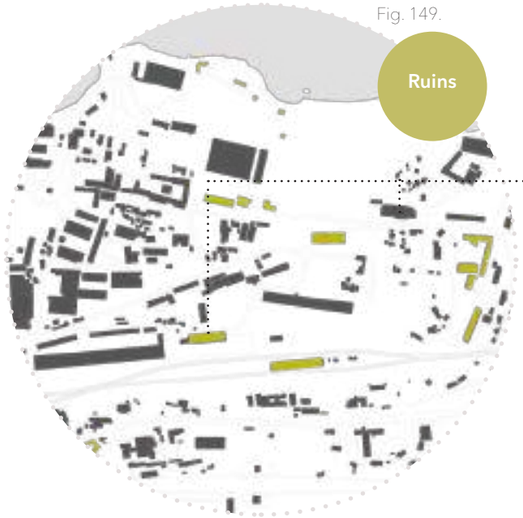


Fig. 150. *"Judino Drvo"*

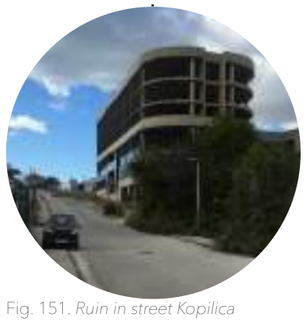
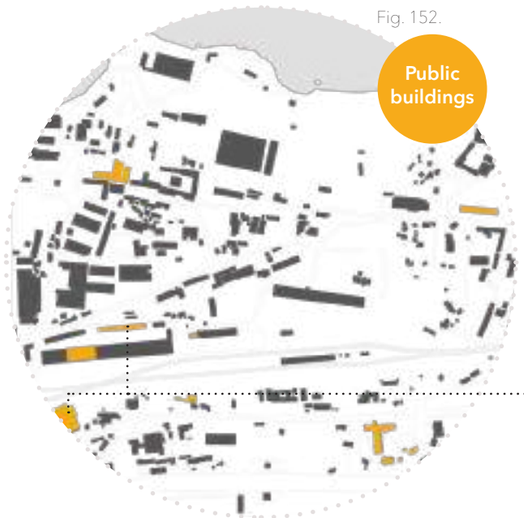


Fig. 151. *Ruin in street Kopilica*

Fig. 152.



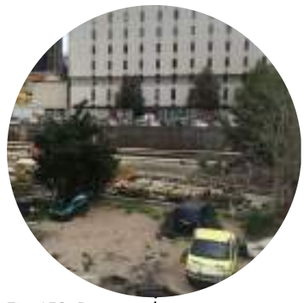


Fig. 153. *Post*

Fig. 154. *University Department of Professional Studies*

Fig. 155.

Fig. 156. *House in Hercegovačka ulica 25*

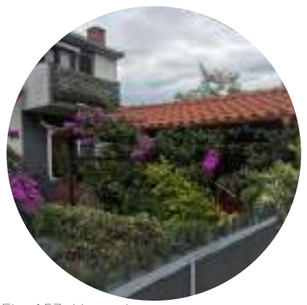


Fig. 157. *House in Hercegovačka ulica 17*

Fig. 159. *Andabak Ltd.*

Fig. 160. *Building material store*

Fig. 158.

Fig. 162. *"Dalmacija vino"*

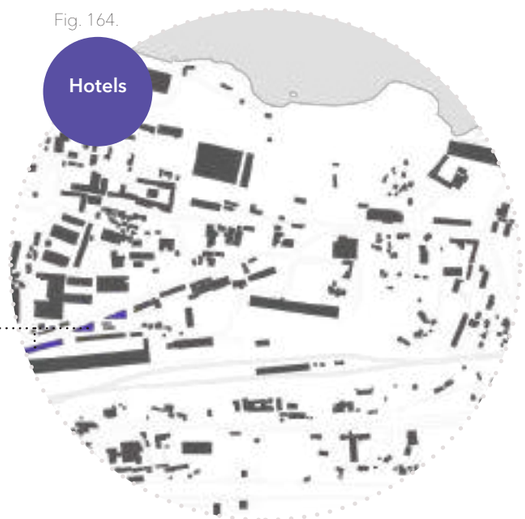
Fig. 163. *Seeds Ltd.*

Fig. 161.

Fig. 165. *Hotel "Mond"*

Fig. 166. *Hotel "As"*

Fig. 164.



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LEGEND:

- Ruins
- Public buildings
- Houses
- Bussines
- Industry
- Hotels

Fig. 167. *Purpose of Area*

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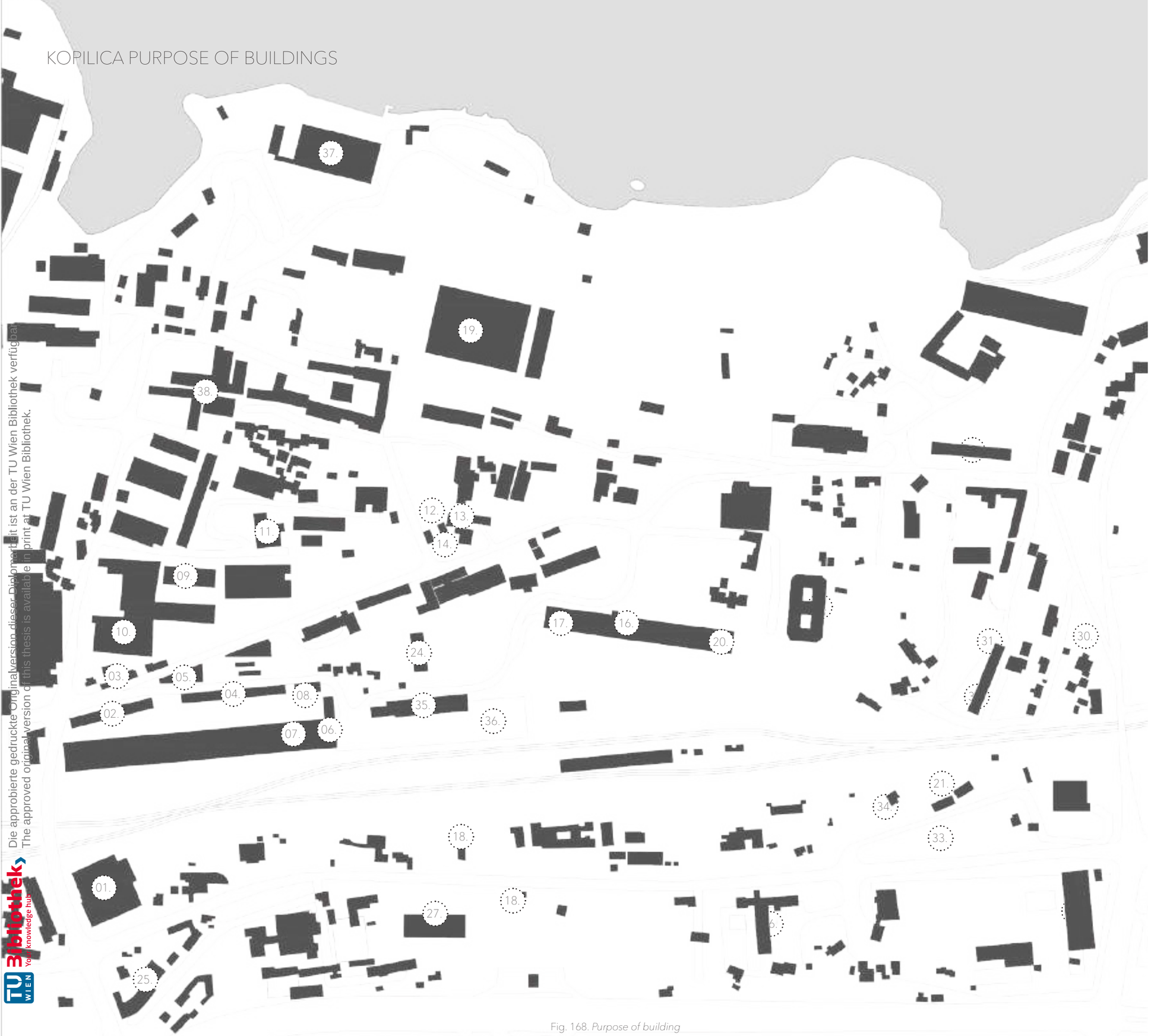
KOPILICA PURPOSE OF BUILDINGS



01. Croatian Post
02. Hotel "Mondo"
03. Restaurant "Argola"
04. University Department of Professional Studies
05. Hotel "As"
06. "Gorenje" - home appliances store
07. "Andabak Ltd." - home appliances store
08. "ELGO Ltd." - home appliances store
09. "Adriacink d.d."
10. "METRIS Ltd."
11. "IN TIME d.o.o."
12. "TERMO-ING d.o.o." - shop for building materials
13. "Schrack Technik - Split" - shop for el. devices
14. "MATSTI d.o.o."
15. "Deldit" - upholstery shop
16. "HŽ Cargo d.o.o."
17. "Seed" - Wholesale warehouse Split
18. "INA" - petrol station
19. "Dalmacijavino"
20. Car wash
21. Damage assessment station
22. Vehicle inspection station
23. "Promet" - passenger transport company
24.. "Babić d.o.o." - bakery
25. Split OTB Bank
26. Fire station
27. Water supply and sanitation
28. Tax administration
29. MCI Marine Club International Split
30. "Balinjera" - car dealer
31. "Suzuki Split"
32. "Car star Split"
33. "Gradina Ltd."
34. "Hok Insurance"
35. "Judas Tree"
36. Parking for buses Kopilica
37. Hall for private purposes
38. "Pomak centar" - Sport centre

The heterogeneous character of the space consists of numerous institutions, office buildings, the dominant railway, warehouses, industrial halls, but also housing. More than 450 adults live in the selected area (source: Ministry of Administration of the Republic of Croatia; Register of Voters). Most of them are ground floor houses of more modest dimensions and materialization, with a front yard and a back garden. This green identity of the suburban area is unique in Split. [21]

Fig. 168. *Purpose of building*

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KOPILICA TRAFFIC

When a settlement happens unplanned, the first functional problem that arises is traffic.
In addition to the unrealized part of the road in the north that prevents circulation around the perimeter, a major problem for the future adapted to human scale and pedestrian vision is the amount of roads that open all the space between neighborhoods to cars, leaving some parts of the neighborhood completely introverted. [22]
In the scenario of congestion of housing structures as well as relocation of stations in this area, traffic is threatened by congestion even if interruptions are connected and roads are rebuilt.

Therefore, it is necessary to join the appropriate transport network in accordance with the desired scenario of space use.

Hercegovačka street
(number 2-20)

59 adult
19 underage

Hercegovačka street
(number 1-59)

196 adult
62 underage

Put Duja

42 adult
14 underage

Kopilica street

108 adult
33 underage

Put Sjeverne luke

46 adult
16 underage

Fig. 169. *Kopilica traffic*

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DEFINE A TASK

In order to increase the number of tourists, the new station will aim to provide motel services, as a temporary accommodation, which the current one does not have. The motel would offer year-round accommodation, given that the number of visitors to Split is widespread throughout the year, which concludes that the old location must be replaced with a new one in order to relieve the old city center and to allow uninterrupted performance of all functions.

The old station location can be used as a series of functions that would contribute to the old town.
According to previous analyzes, the most ideal connection with the permanent port and the center is the metro line leading to Kopilica, which gives it a suitable place for the development of a new station. This would significantly relieve the city core and activate the northern side of the peninsula. The new station would have a broader development story with local traffic still being directed to the city port as the passenger port terminal is important throughout the year.

In addition to public parking, Split also has 18 public garages. The first closest to the center is the Garage Dvornokovi dvori with its 38 parking spaces. It is 1 kilometer away from the existing bus station. Analyzing the parking lot, we come to the conclusion that the existing station can be very adequately transformed into a public garage or parking space that would allow a larger capacity parking space during the tourist season, would be most suitable for the central and ferry zone which would make it useful throughout the year. Along with it, it is necessary, of course, to add some urban facilities that would continue the whole story of the waterfront from the west coast to the south (designed by 3LHD), across the waterfront and further to the site of the existing station.

Fig. 170. *Motel sketch*

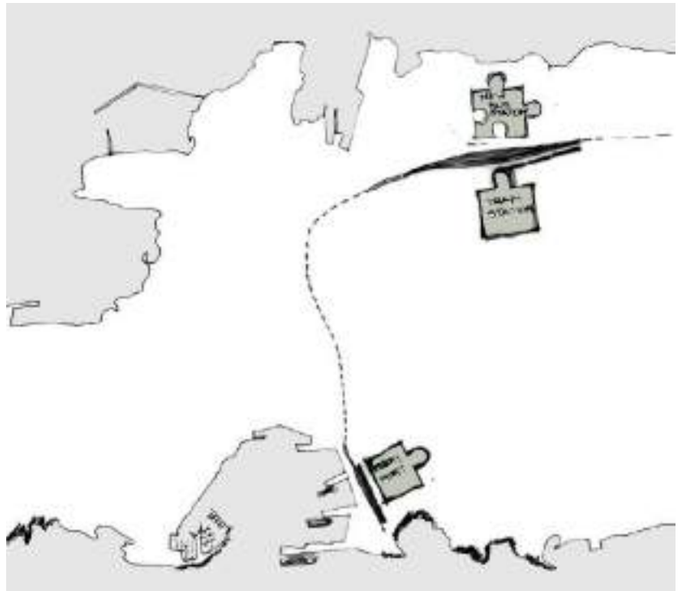

Fig. 171. *Split connecting Kopilica with the ferry port-sketch*

Fig. 172. *Concept of the south coast-sketch*

IMPORTANT PARAMETERS FOR PROJECT DEVELOPMENT

In the period from 1948 to 1991, the number of inhabitants in Split increased 3.7 times, from 54,187 to 200,459 inhabitants, after which it continuously decreased. Residents are leaving the city and moving to coastal cities and municipalities, there are significant migrations to other counties and abroad. The main reason is the increase in the cost of living in the city.

The number of households with one to three members increases, and the number of households with four or more members decreases.
The City of Split is dominated by smaller apartments (35-55 m2) intended mainly for rent to tourists or for occasional use.

The number of domestic arrivals in the period 2012-2017 increased by 37%, while the number of foreign arrivals tripled. Data from the Croatian National Tourist Board on occupancy show that hotels are the best filled type of accommodation. In the category of 5 * hotel occupancy is 49%, with 4 * is 60%, 3 * is 40%, 2 * is 13%.
Conclusion:
It is necessary to provide accommodation for tourists on the site, not excluding the construction of housing. It is necessary to offer apartments that will be accessible to the residents of Split, first of all thinking of younger families, with them to make additional content for school and kindergarten in order to use the apartments for housing and provide sufficient quality of life that could not be replaced by investing in an apartment.

The apartments should be predominantly two-bedroom.
In addition to the additional motel that would be offered as temporary accommodation within the station (in an emergency), the station should, in addition to the entire complex, contain a deluxe hotel with 5 * to meet the conditions of higher class (people who would come by first class railways for business interests in Split, high-budget tourists who could find something luxurious in the city center ...)

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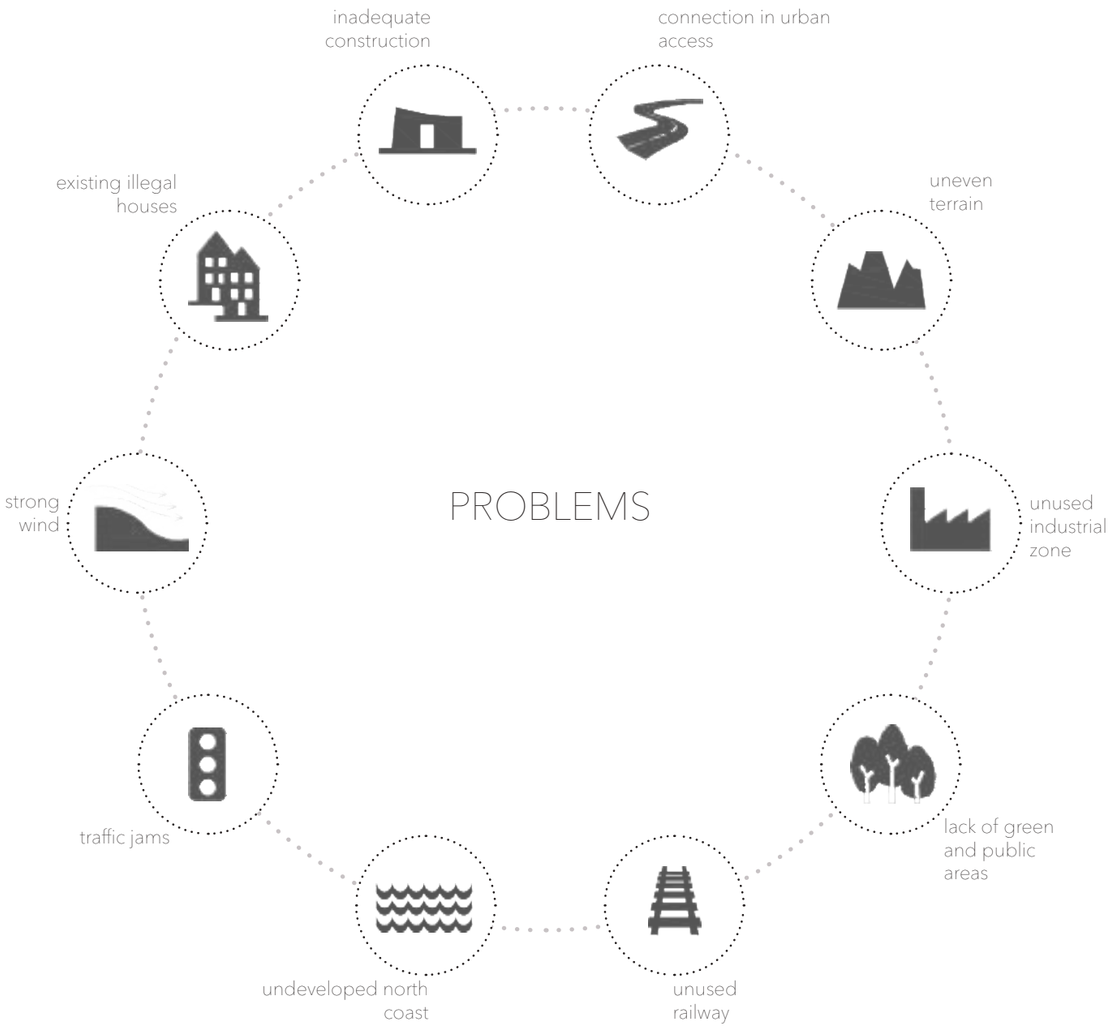
DESIGN

"Erst das Leben, dann der Stadtraum, dann die Gebäude !"

- Jan Gehl



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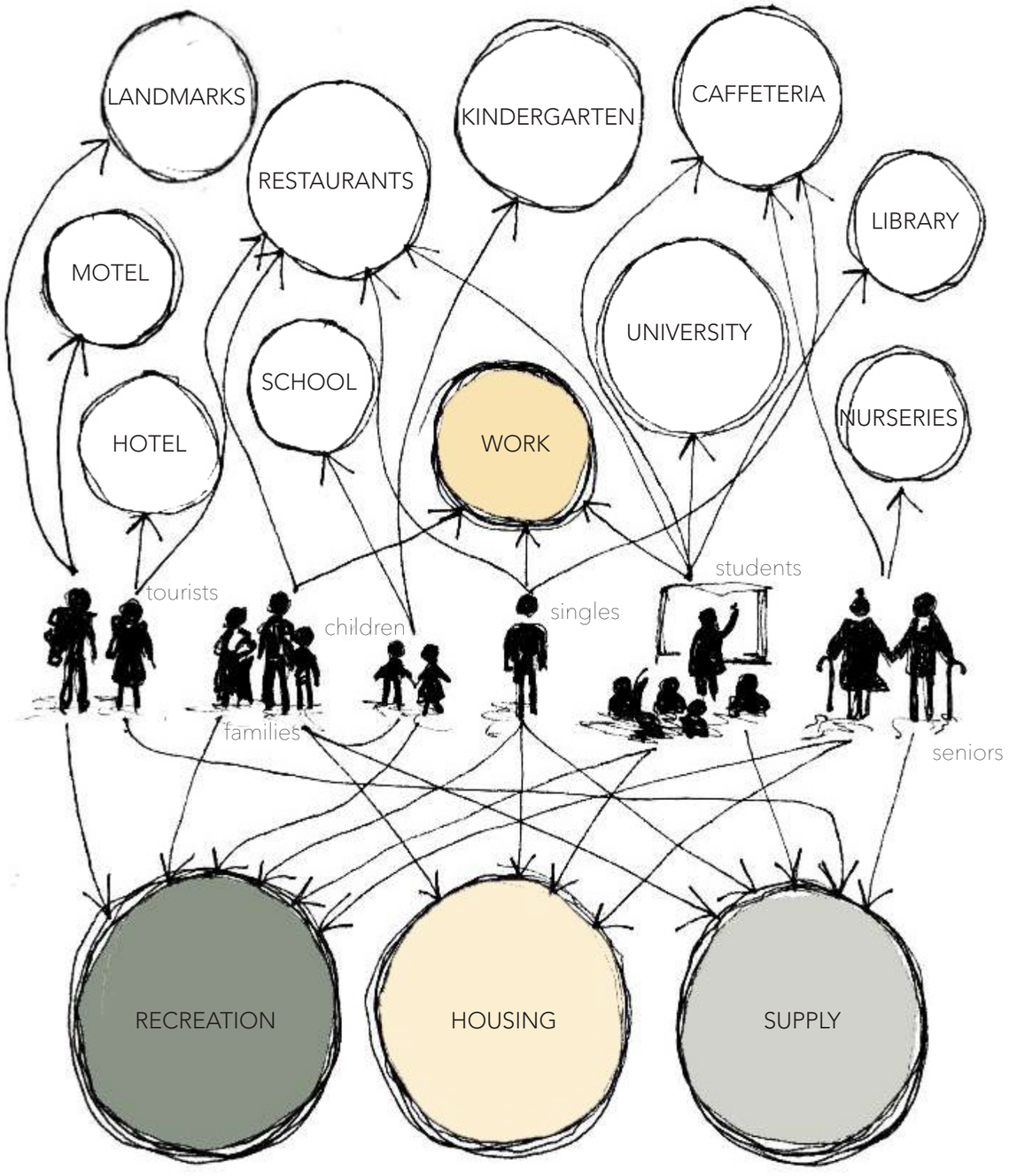
WHO WILL USE THE LOCATION?



NEW ZONING

Fig. 173. *New zoning*

- SPORT & RECREATION
  - parks
  - green areas
  - fitness equipment
- WATERFRONT
  - promenades
  - pavilions
  - urban areas
- STATION
  - motel
  - urban areas
- EDUCATION
  - elementary school
  - agronomic school
  - workshop
  - courses, languages, music
- INDUSTRY
  - agro industry
  - technology park for ships
- BUSINESS & RESIDENTIAL
  - smaller markets and shops
  - skyscraper
  - residential buildings
  - houses with gardens
- HOUSING
  - terraced houses
  - multy-family houses
  - common corridor buildings
  - inner courtyard buildings
  - multistorey buildings

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KOPILICA MAP

DEMOLITION
- houses built without permit
- old warehouses
- old industrial facilities
- undefined coast

ADAPTATION
-old warehouse
-abandoned buildings

NEW BUILDINGS

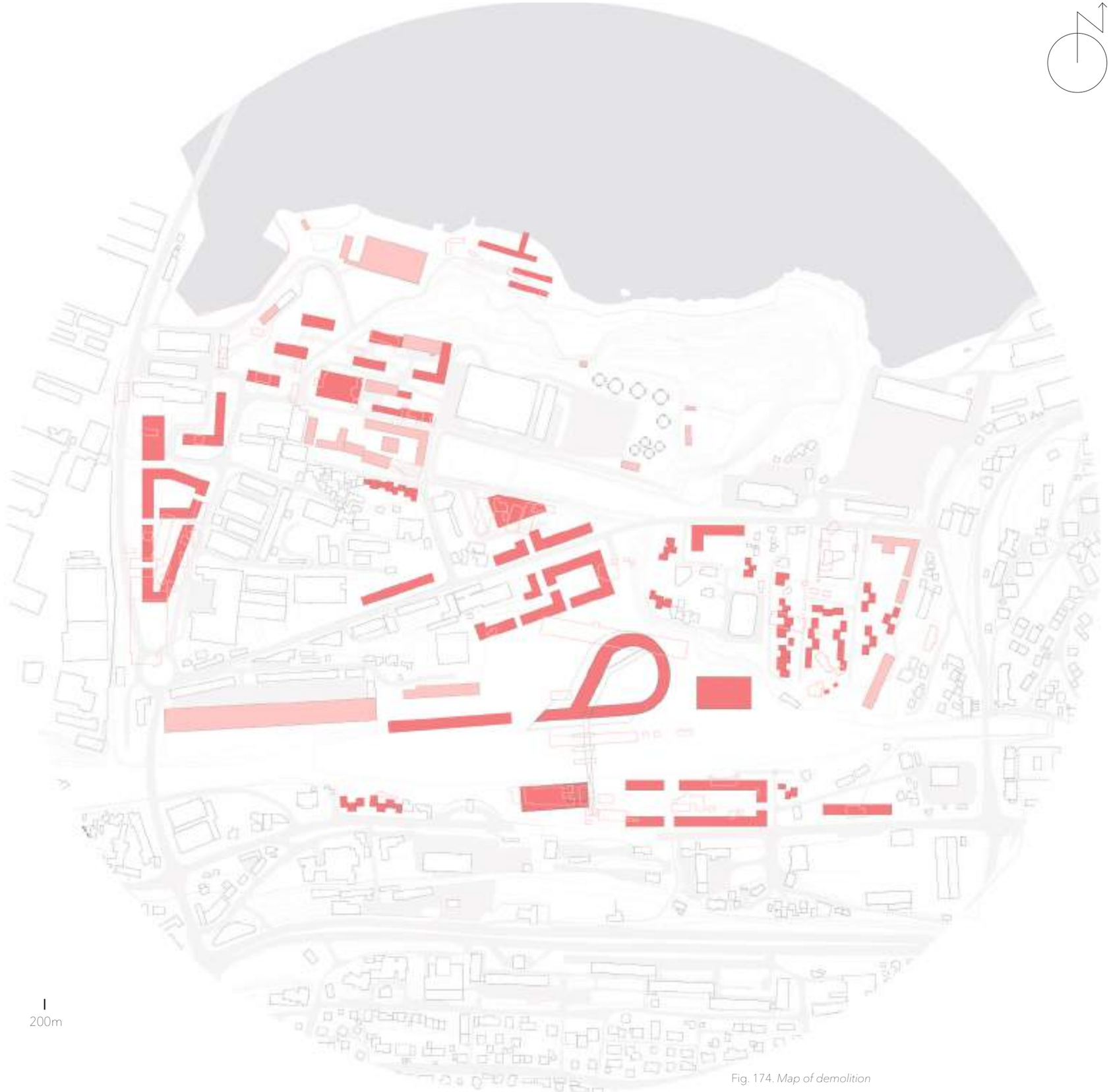

Fig. 174. *Map of demolition*

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URBAN STRATEGY

Kopilica is an area inhabited out of necessity. History has protected it from the fate of other areas in the city of Split. The modest space built up by improvised houses is reminiscent of the most beautiful thing in urbanism, and that is that the space is best protected by use.

The urban strategy was created through numerous analyzes of the plot, the current state of the location and what are its essential features. It is presented in different phases that take place almost simultaneously, but again, each has its own order.

The concept of converting abandoned infrastructure into public spaces sounds like a positive generator of area development and smart use of space for the benefit of residents.

Given that the site is industrially valorized and described throughout history as an industrial zone, it should be left as such, while the creation of a completely new concept by evicting the industry would undermine the whole fundamental feature of the area. Therefore, the key concept was to keep as much as possible, repurpose the rest that is impossible to use as retained and introduce new potential regenerations to give the site much greater significance and meaning.

Sometimes, in order to improve the quality of public space, it is sufficient to research-based basic urban equipment or to arrange green areas in accordance with the character of the place. On a well-placed urban project, specific projects can be developed for a particular intervention area that enrich the place or event in the city. The question of reason then grows into a question of recognizing and maintaining the spirit of the place. Ultimately, the goal of the designed process is to improve social life and generally make our built world a better place to live.

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Phase 1: INFRASTRUCTURE

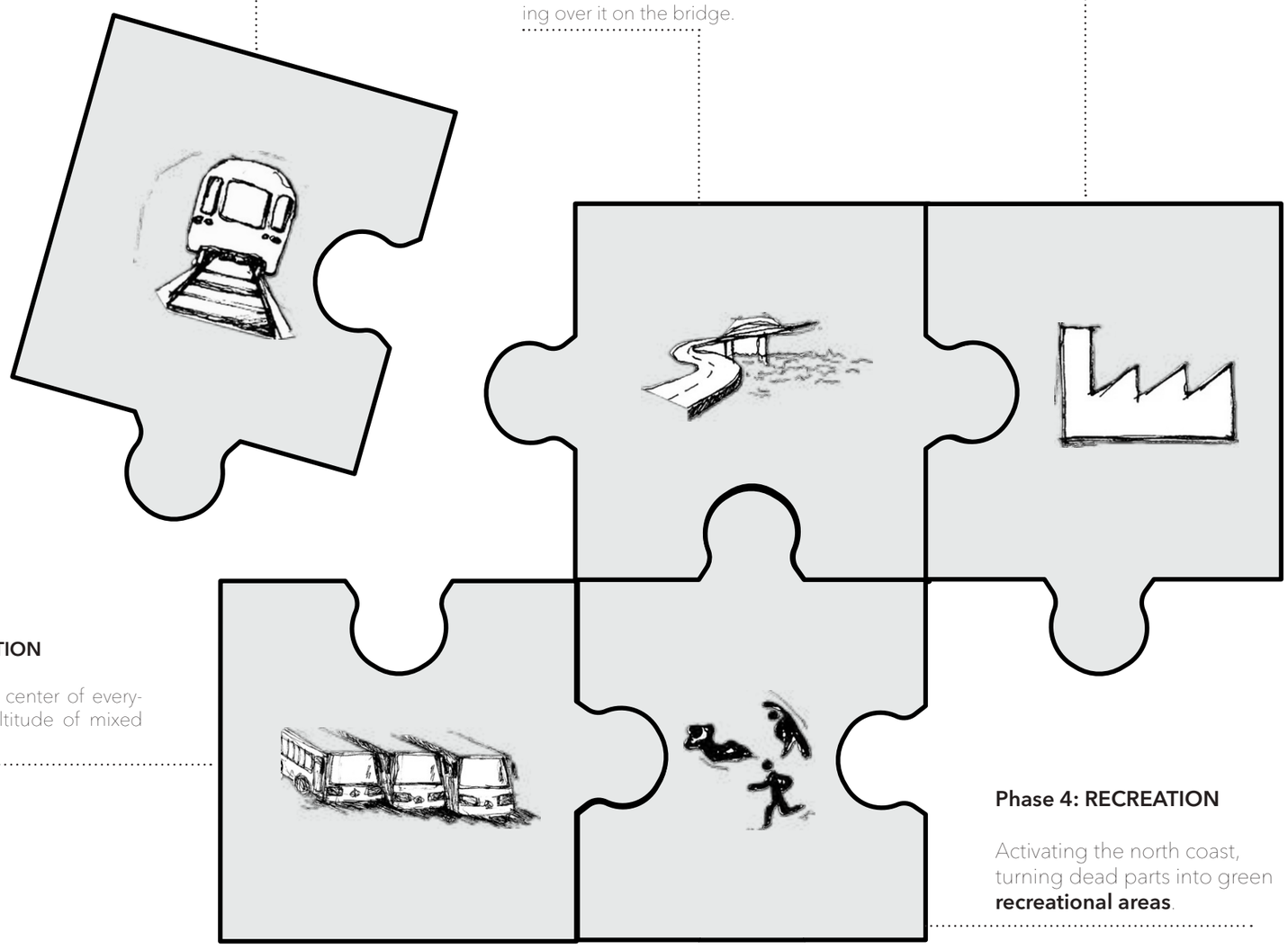
Metro lines would get their function, connecting the south coast with the north and further with the hinterland all the way to the airport. It would cover one whole story, so that the connection between the different means of transport would work very well.

Phase 2: INFRASTRUCTURE

The **new bridge** over the Kaštela Bay would have a very important task, it would serve as a relief point for the entire peninsula. Thus, instead of returning to the Adriatic highway, the traffic would circulate unhindered, connecting over it on the bridge.

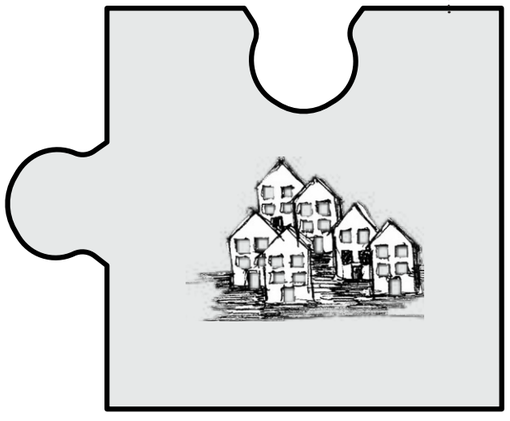
Phase 5: INDUSTRY AND RUINS

Industry expansion. Adaptation of the existing and detailed planning of **the technology park and agro-industrial park.**
Revival of **old ruins** that have remained intact at the site for years. The goal is to easily **activate the location** through small steps, add some new functions as a starting point on the smart map of the inhabitants, to start creating a story that something really exists in that location, something new, interesting and with some purpose.



Phase 6: HOUSING

Construction of residential buildings.



Phase 3: BUS STATION

The station as the center of everything, set in a multitude of mixed functions.

Phase 4: RECREATION

Activating the north coast, turning dead parts into green **recreational areas**.

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PART 1

METRO

Despite their great potential, the railways in Split are poorly used. They go through most of the conurbation, except before entering the center of Split, where it was conducted through an underground tunnel.

According to new analyzes, in 2019 the first Metro station came to life in Split. It was the first and only metro line in the whole of Croatia. The ride lasted 3 minutes and was on the route Kopilica-Center. It was carried out on this underground route below the central part of the city of Split, which has long been planned for that purpose, it only needs to be renovated in order to be fully operational.

The move of the existing line with the newly created plans can be used as a basis for the suburban railway, which would also be a Metro line. The railway would aim to:

-Connect the bus station to the Center, ferry port or to the airport
-Provide other users with faster and more accessible access to the City Center
-Reduce traffic jams in the center
-Connect Split with surrounding places

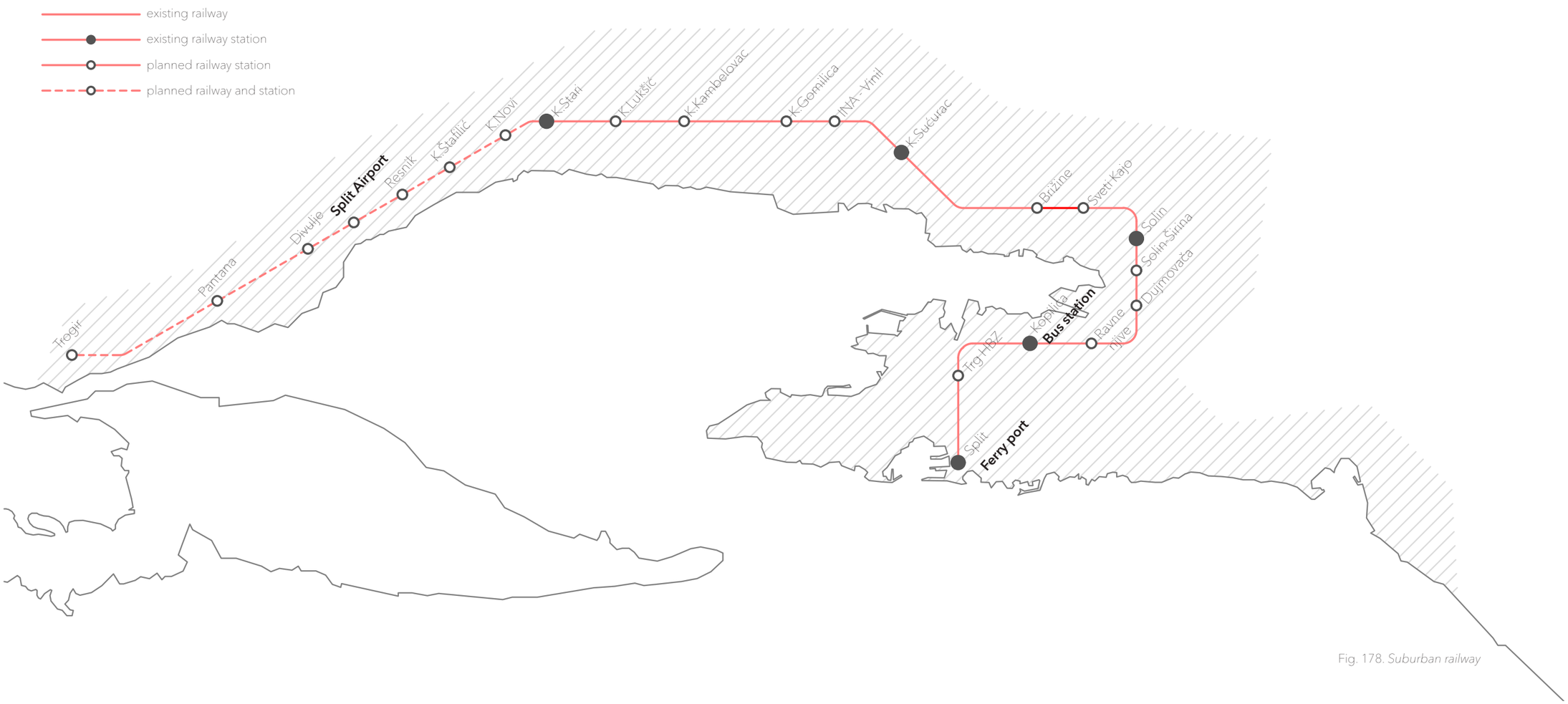

Fig. 178. *Suburban railway*

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INFRASTRUCTURE - Metro line

Central bus station
Central railway station
North coast (New center)
Parking garage

Bus station Sukoišan
Administrative center
Sports and recreation zone

Old town
Public facilities

Ferry port
Bus station
Railway station
Beach Bačvice

Fig. 179. *Metro line*

Proposal of a new solution:

Phase 1: Construction of a new station and platform on Kopilica
Conversion and renovation of the main station in the Split ferry port
Renovation and electrification of the existing railway from Split to K.Kambelovac
Arrangement of existing stations, platforms and access roads

Phase 2: Continue infrastructure construction by adding new railways to the Airport
Construction of smaller stations
Construction of accompanying facilities

Phase 3: Further construction of the railway to Trogir

To meet the capacity of the whole area, the train sequence should be every 10 minutes with track maintenance for 3 hours a day, which would mean 180 trains a day, i.e. 60,000 passengers. For better and faster access to the Center, the possible addition of trains (subways) in the direction of Split ferry port-Kopilica and vice versa, at more frequent intervals of 3,5 and 10 min.

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PART 2

BRIDGE "Kaštel"

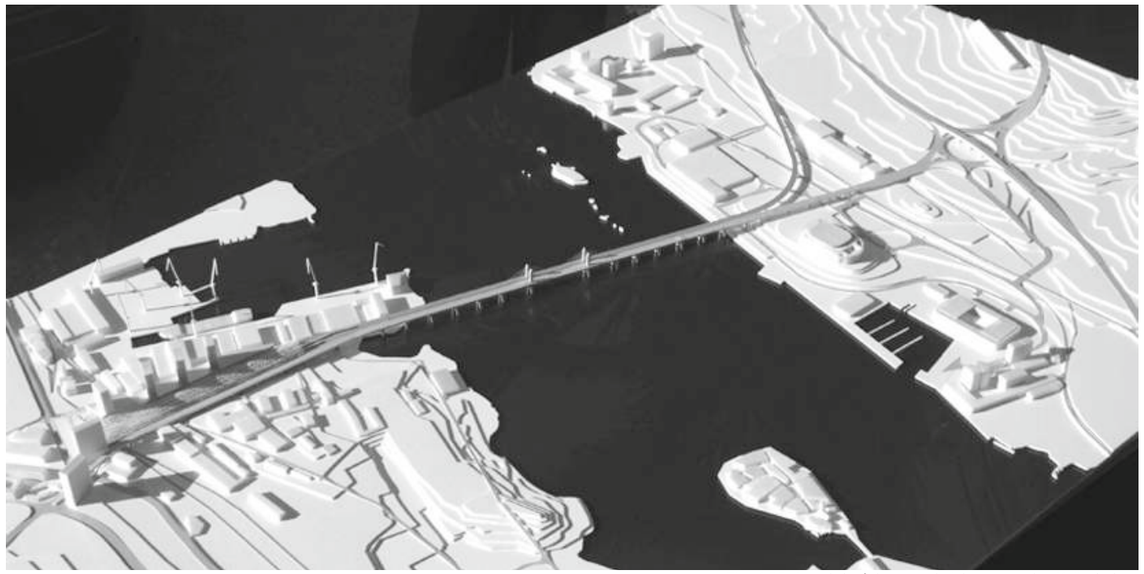

Fig. 180. *Model of the new bridge over the Kaštela bay*

Fig. 181. *Map showing the new bridge connection to the highay*

The bridge is the bearer of the concept of development of the northern coast of Split.
Split is a city of almost 200,000 inhabitants and has only two entrances (or exits)!
When we look at its surface and its shape, we can clearly see that it is a single peninsula, extremely long, which is very difficult to unload with two input / output nodes. If we imagine a situation where we find ourselves at a time when we need to leave or return from work, we also add the summer season when additional traffic is made by tourists, the journey from point A to point B would actually be one section that lasts hours instead of a few minutes. **Therefore, one of the necessary solutions is to take a point on another side of the peninsula that would further relieve it.**

The idea was partly taken over by the architect Ante Kuzmanić, who in 2007 presented his project of **the Kaštel Bridge**, which would connect the northern coast of Split with Kaštel. The original idea speaks of two divided bridges, one road and one railway. The traffic of larger ships is imagined through a medium span of 150m wide and 35m wide width. On the north side in the extension of the railway would be the Bus Terminal with the railway station directly coming to it. Then the location of the Station itself would have to be relocated, and due to the impossibility of accomplishing the project task, the entire system together with the station would fail. For this reason, a partial idea is adopted, the bridge itself, as a road connection with Kaštel, which would further relieve the traffic of the whole of Split, so that in the future, when developing the northern side of the peninsula does not happen the same if not greater problem we face today on the east coast.
The bridge represents a strong infrastructural move and has the potential to become the backbone of development and the beginning of the necessary redefining of the urban identity of the area on the north side of the Split peninsula. The planned length of the bridge is 1170 meters. The route of the bridge on the Split side would continue on the route of Dubrovačka Street, while on the Kaštela side the route would connect with the new road to the highway Trogir - Omiš, and further, through the planned tunnel through Kozjak, to the A1 motorway at the existing exit Vučevica. With this exit, in relation to Dugopolje, the trip to Zagreb would be shortened by twenty kilometers.[23]

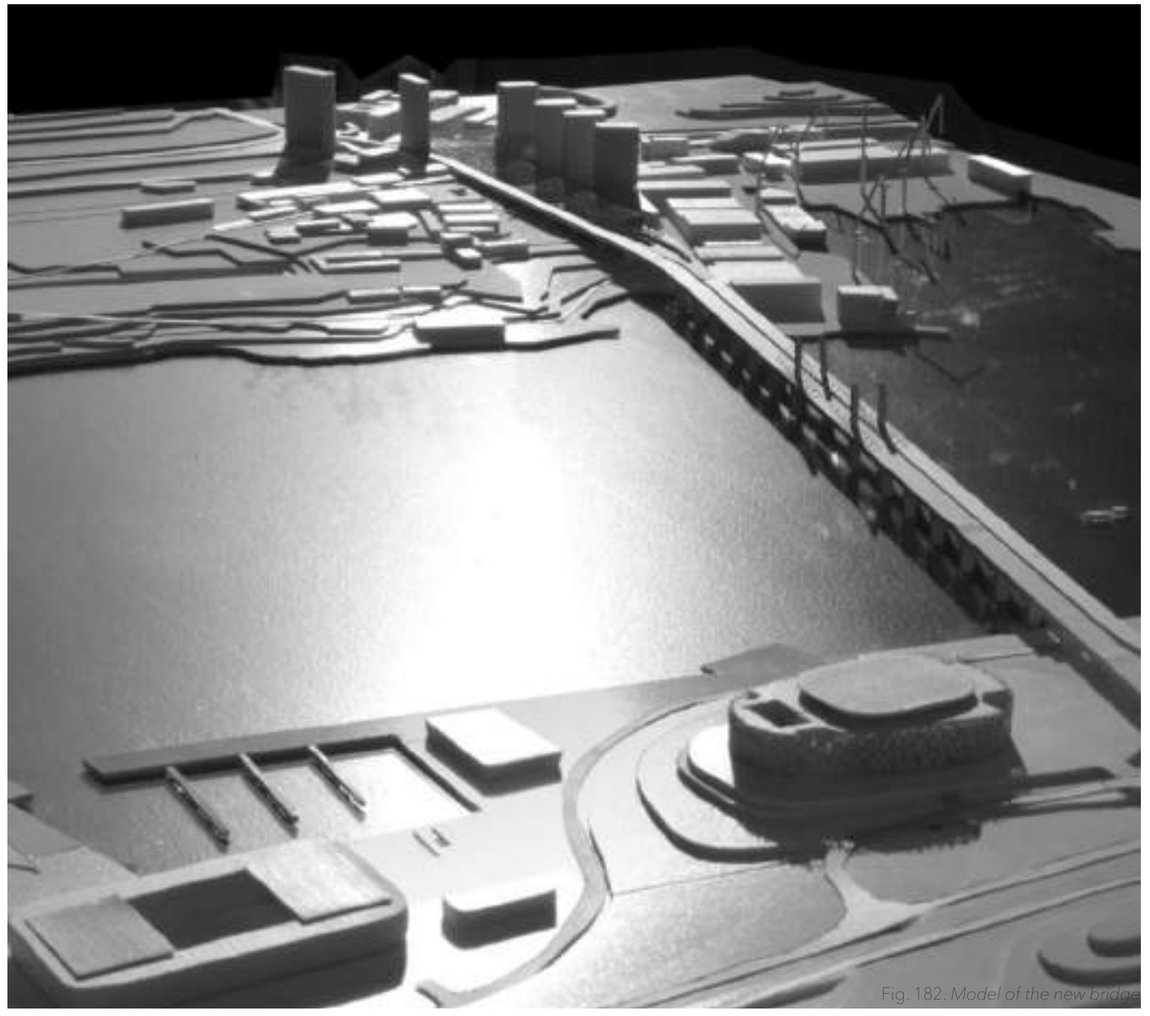

Fig. 182. *Model of the new bridge*

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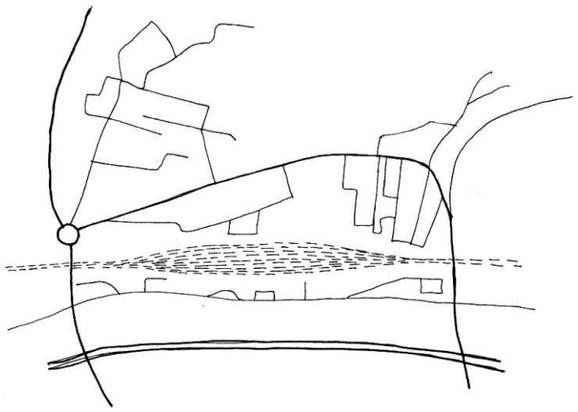
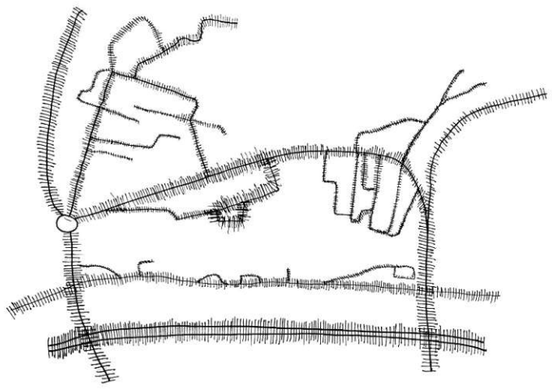


main road

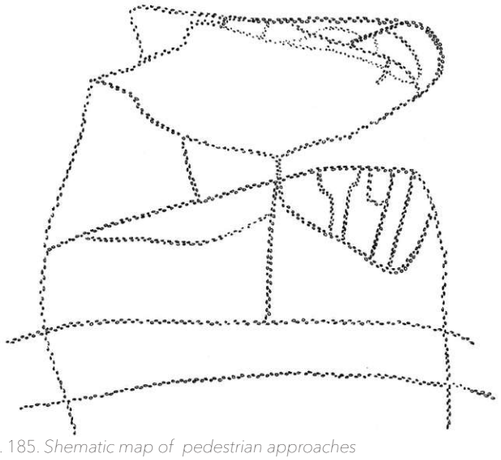
railway

Fig. 183. *Shematic traffic map of Kopilica*



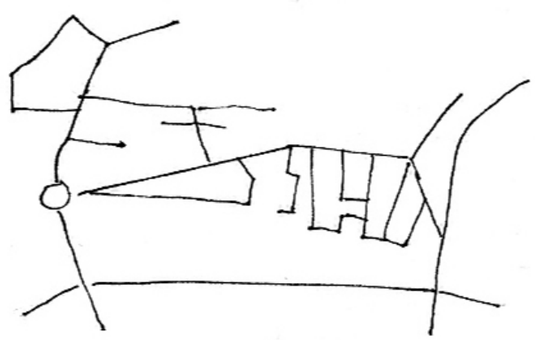
streets of high traffic intensity

Fig. 184. *Shematic map of traffic intensity*

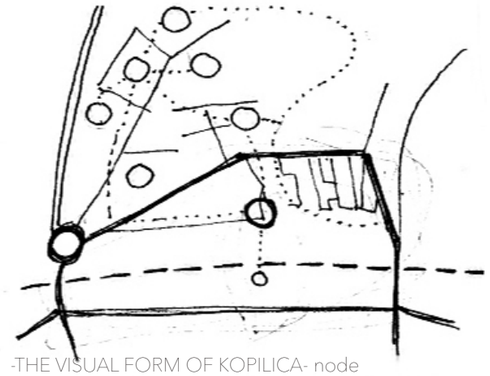


pedestrian movement

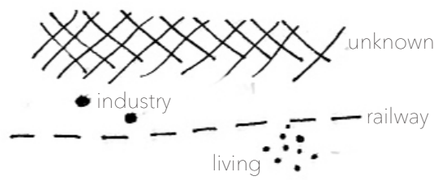
Fig. 185. *Shematic map of pedestrian approaches*



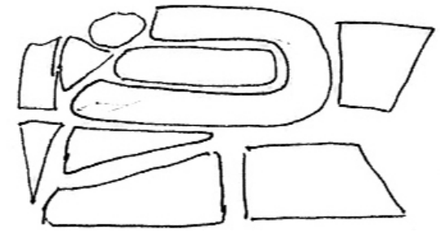
-OUTLINE MAP OF KOPILICA- traffic



-THE VISUAL FORM OF KOPILICA- node



-KOPILICA THAT EVERYONE KNOWS



-VARIABLE BOUNDARIES OF KOPILICA

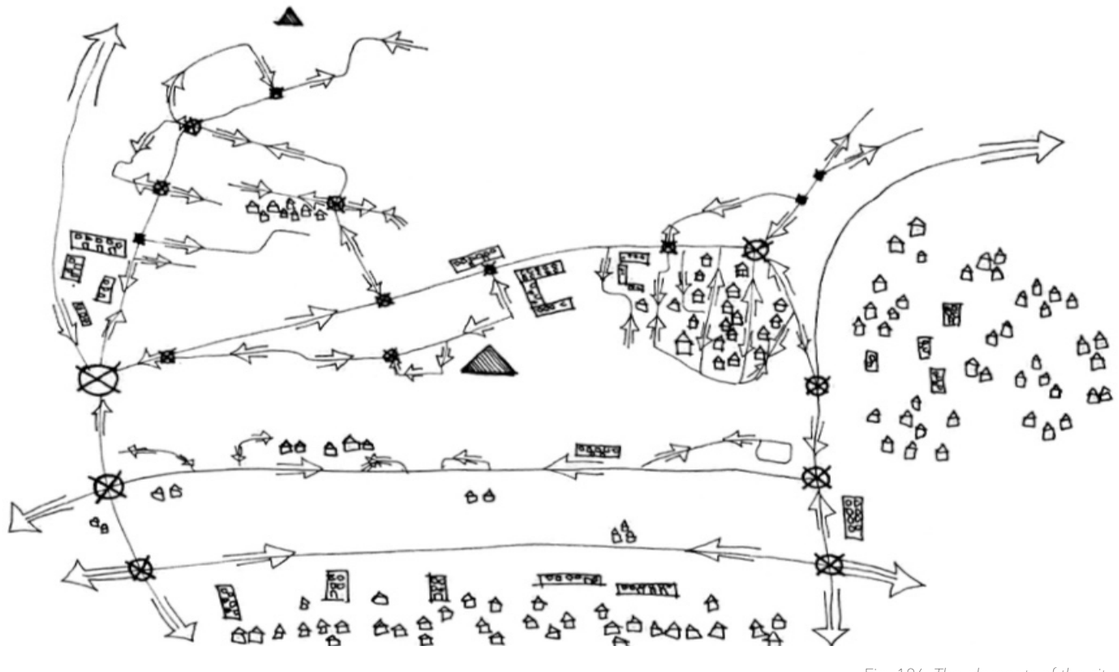


Fig. 186. *The elements of the city*

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INFRASTRUCTURE - New traffic of Kopilica

traffic

walk path

cycle way

point of interest

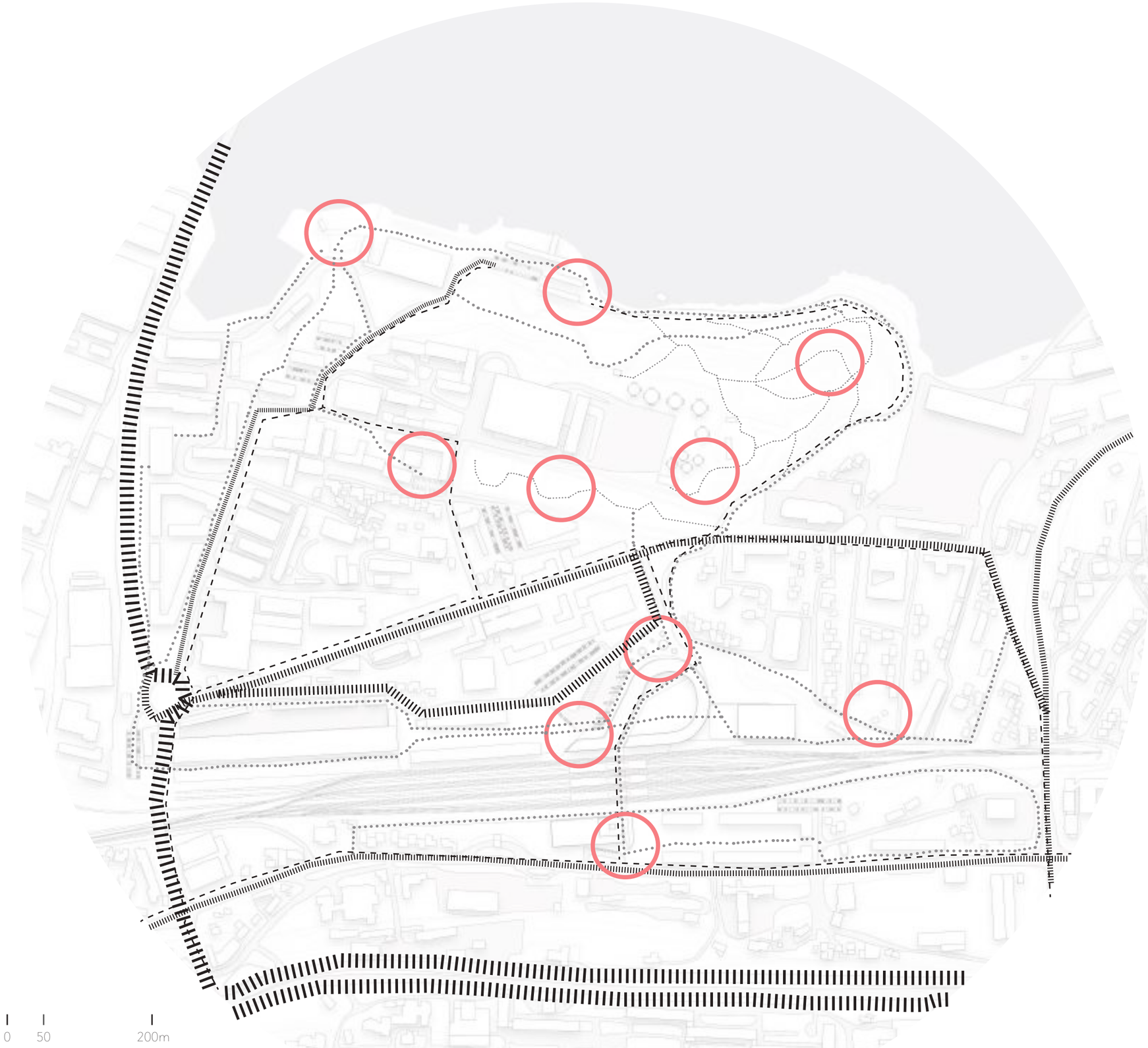

Fig. 187. *New traffic*

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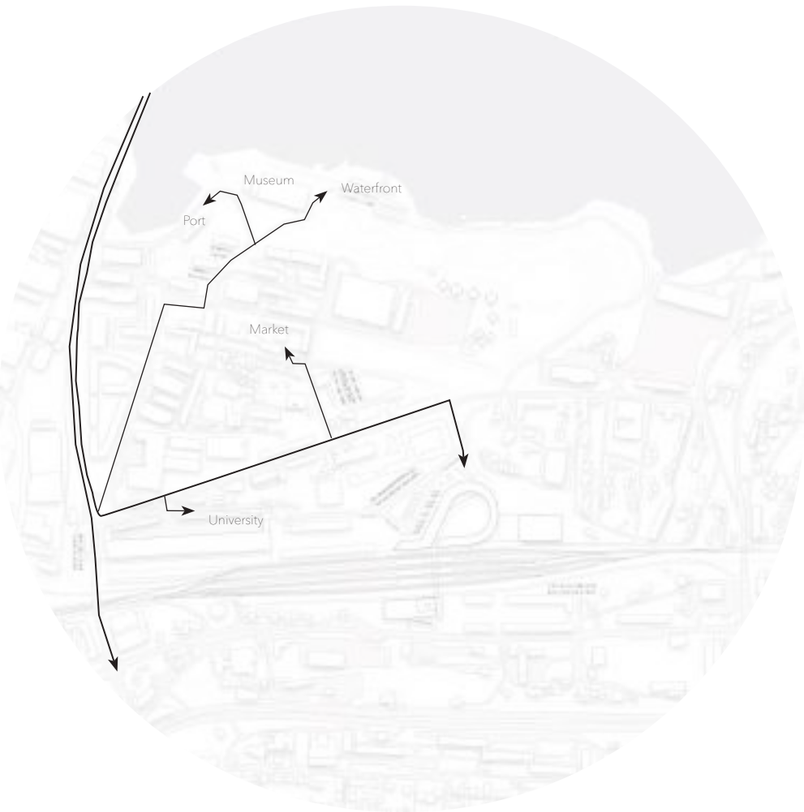
CONNECTION 1 (Kaštel with Kopilica and further with the center)

CONNECTION 2 (Connection with Landmarks)



CONNECTION 3 (tertiary connections)

Fig. 188. *Map of connections*

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INFRASTRUCTURE - Public traffic

bus
taxi
ship
metro

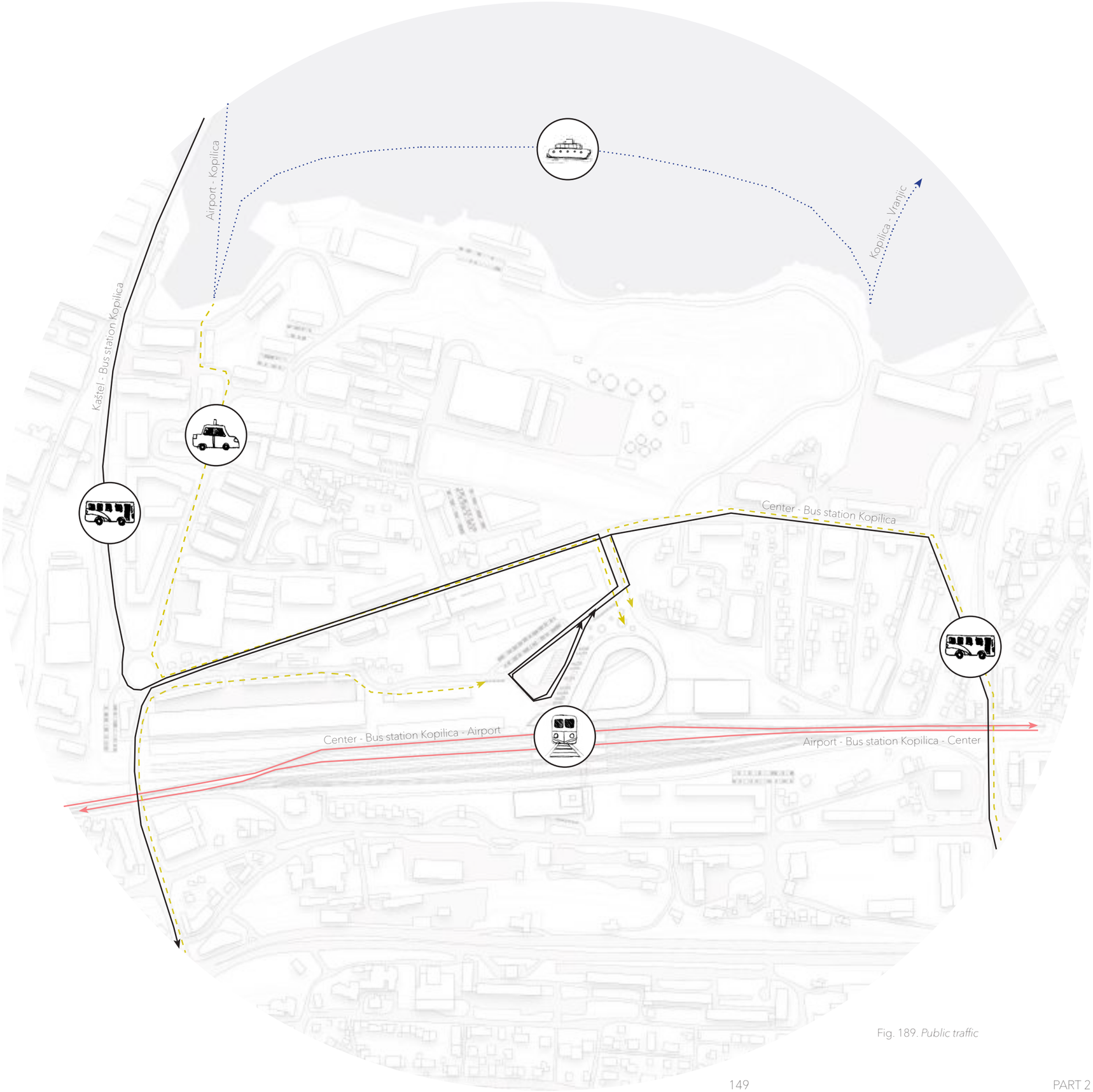

Fig. 189. *Public traffic*

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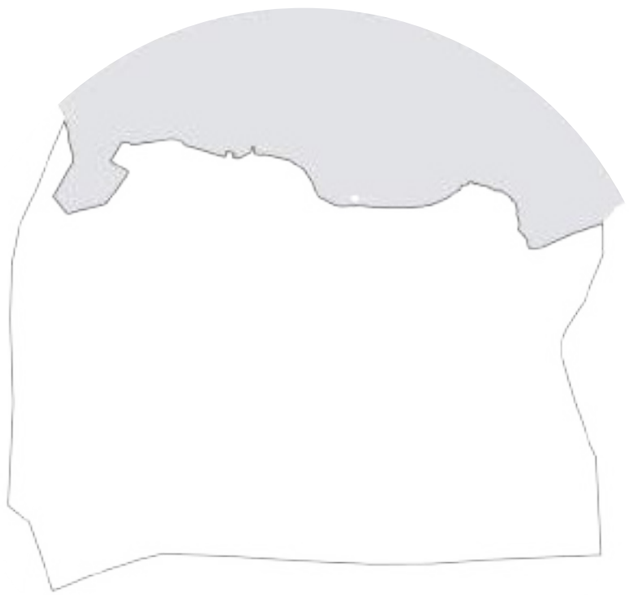
MASTERPLAN

„The measure of any great civilization is its cities and a measure of a city's greatness is to be found in the quality of its public spaces, its parks and squares."
- John Ruskin

URBAN ELEMENTS

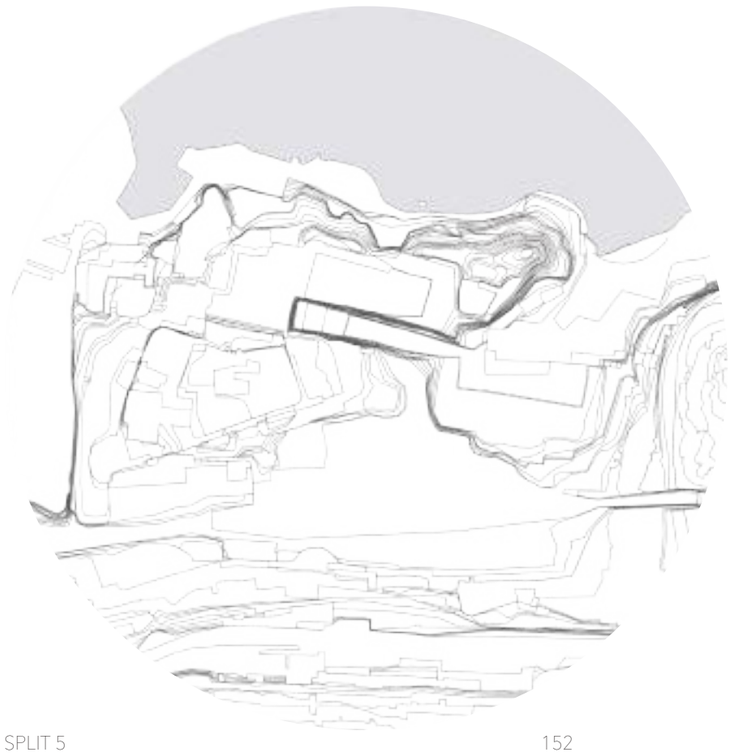
water

borders



vegetation

topography



street

figure ground

Fig. 205. *Urban elements*

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MASTERPLAN - Layout

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MASTERPLAN - Zoom 1

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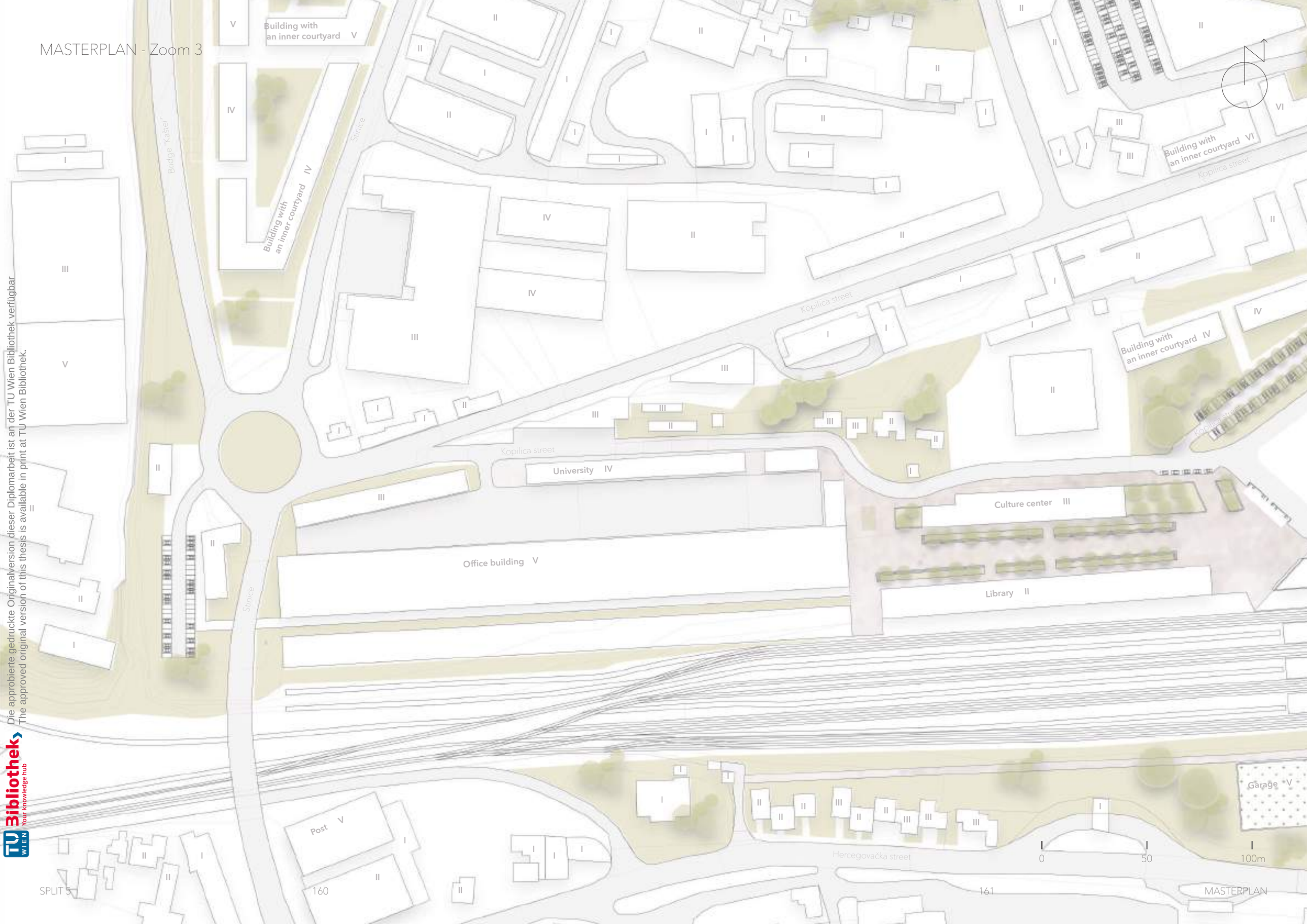

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MASTERPLAN - Zoom 4

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MASTERPLAN -3D

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MASTERPLAN -3D view

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PART 3

BUS STATION

CLASSIFICATION OF BUS STATIONS

The types of bus stations are determined based on passengers who travel from it every day, in relation to the total number of passengers.
Bus stations are classified according to the following criteria:
- According to the method of execution with regard to bus traffic flows,
- Traffic size and dynamics, and
- According to the way operation is organized.

They can be divided according to the mode of execution with regard to bus traffic flows
in two types:
- Front (Front bus stations are constructed in such a way that buses come from one passing street and stop right at the edge of the stop.)
- Transient

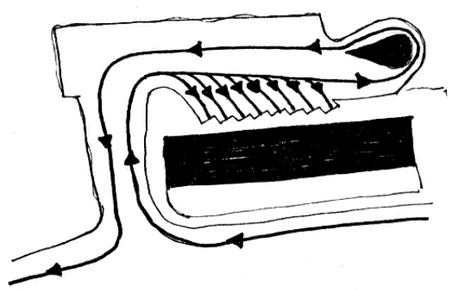


Fig. 190. *Front platforms*

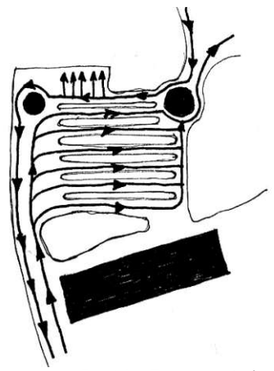


Fig. 191. *Transient platforms*

Area content by function:
-Terminal entrance hall (entrance, exit)
-Terminal building (basic and accompanying content)
-Platform surfaces
-Area for traffic at rest
-Operational and technical part of the terminal

Category of bus stations in Croatia by size:
BIG: Zagreb
MEDIUM: Sl.Brod, Varaždin, Osijek, Karlovac, Split
SMALL: Rijeka, Bjelovar, Zadar, Pula, Virovitica

Organizations of passenger terminals:
-Station foreground: Public transport stop, taxi, walking paths, parking for personal vehicles
-The station building: operational activities (agencies, representative offices),
transport activities (rent a car, taxi, parking),
service activities (catering, trade, bank, post office, fun games)
-Bus traffic area: Departure platforms, Arrival platforms, Bus parking)

Bus station users:
- passengers and companions (arriving, departing)
- visitors
- Bus station staff
- bus staff (chauffeurs)
Passenger information model:
-Passengers: arrival, departure, transit
domestic, international
line, extraordinary (suburban and intercity)
with bus change (from domestic to international lines and vice versa), without bus change

Passenger models were introduced to show the basic difference in the design, so that, say, suburban passengers, unlike intercity passengers, know the exact destination, time and ride. They have a prepaid ticket, no luggage and know the contents of the station, while long-distance passengers have companions and luggage, come earlier to buy tickets and ensure that they will arrive on the departure platform on time.

Carrier model structure: domestic and foreign

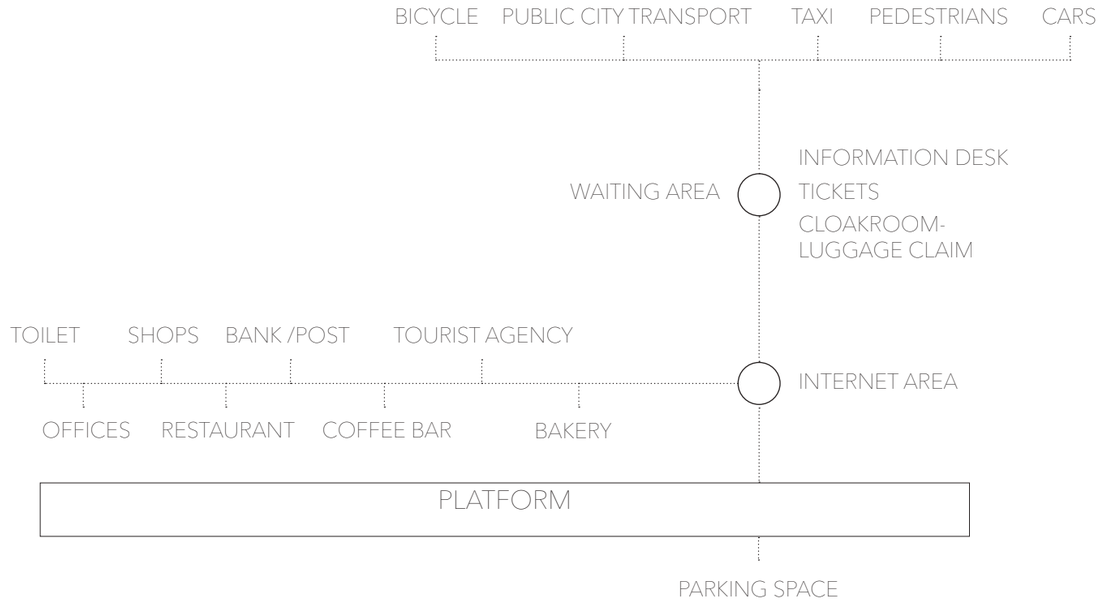
Traffic flows at bus stations:
-Passenger and luggage flows,
-Bus flows
-Flows of visitors and companions

Division according to the organization of work: passenger, freight, mixed

In addition to functionality, there are a number of features that we must pay attention to when designing, and arise from the requirements of users, service providers and social change.

The guidelines are: functionality (operability of the station), usefulness of the station, quality and value itself

Principles of usefulness:
A number of requirements for users (passengers, visitors, passers-by) are accessibility, ease of navigation, comfort, access to information, security, involvement of the local environment, public facilities
Prikaži citirani tekst



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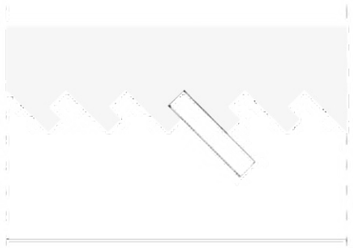
STATION SPACE

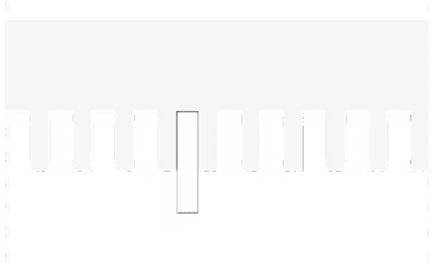
The bus station is a space that aims to provide reception and dispatch of passengers and buses. The formation of the platforms provides a space for the entry and exit of passengers and luggage, and in this way the transport is performed unhindered. The platforms consist of a pedestrian and a bus section. The pedestrian part is raised for passenger going into and out of busses.
Platforms are divided into: incoming and outgoing and waiting platforms (for bus parking)

0 ° at 100m² relevant for 6 stops

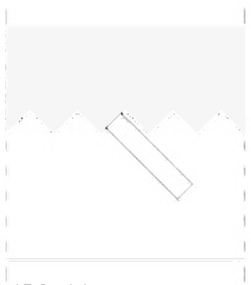
30 ° - 13 stops



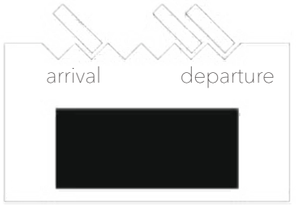
45 ° - 14 stops

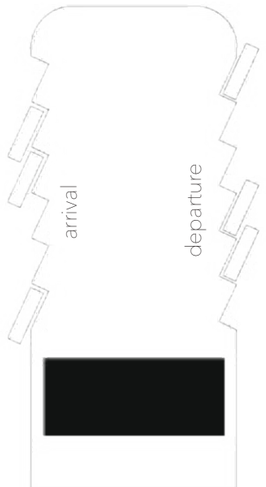


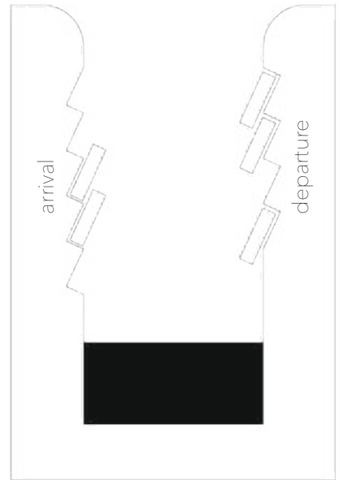
90 ° - 20 stops



45 ° - 14 stops







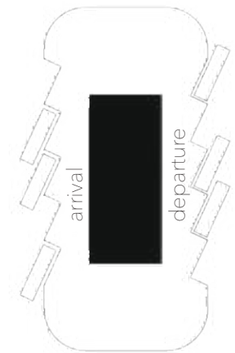


Fig. 192. *Platforms scheme*

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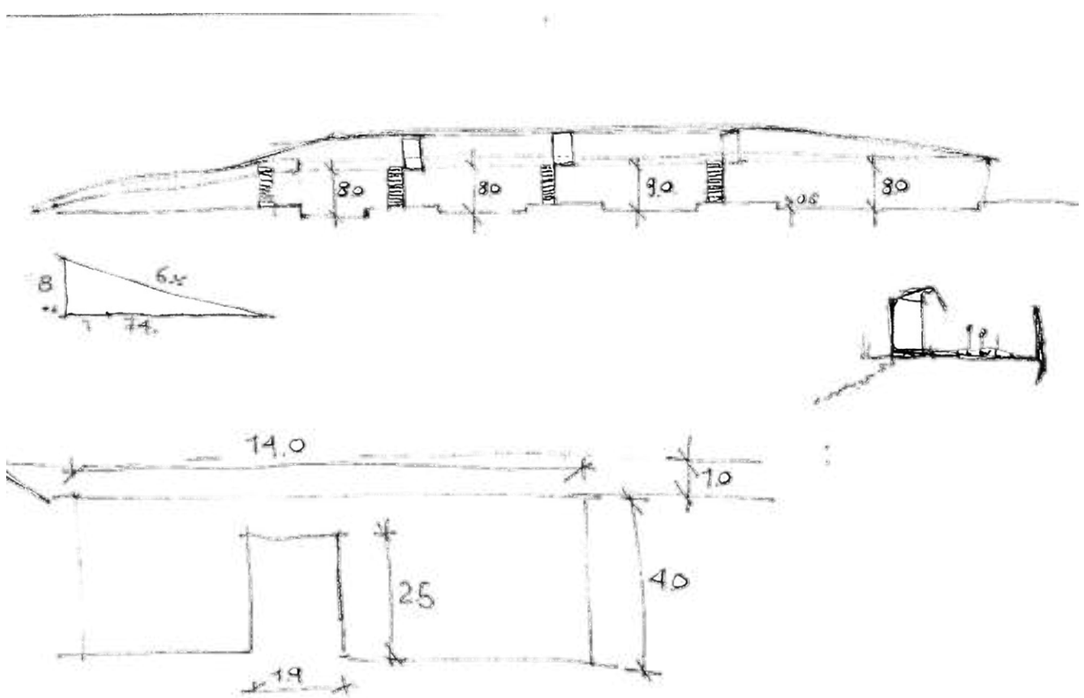
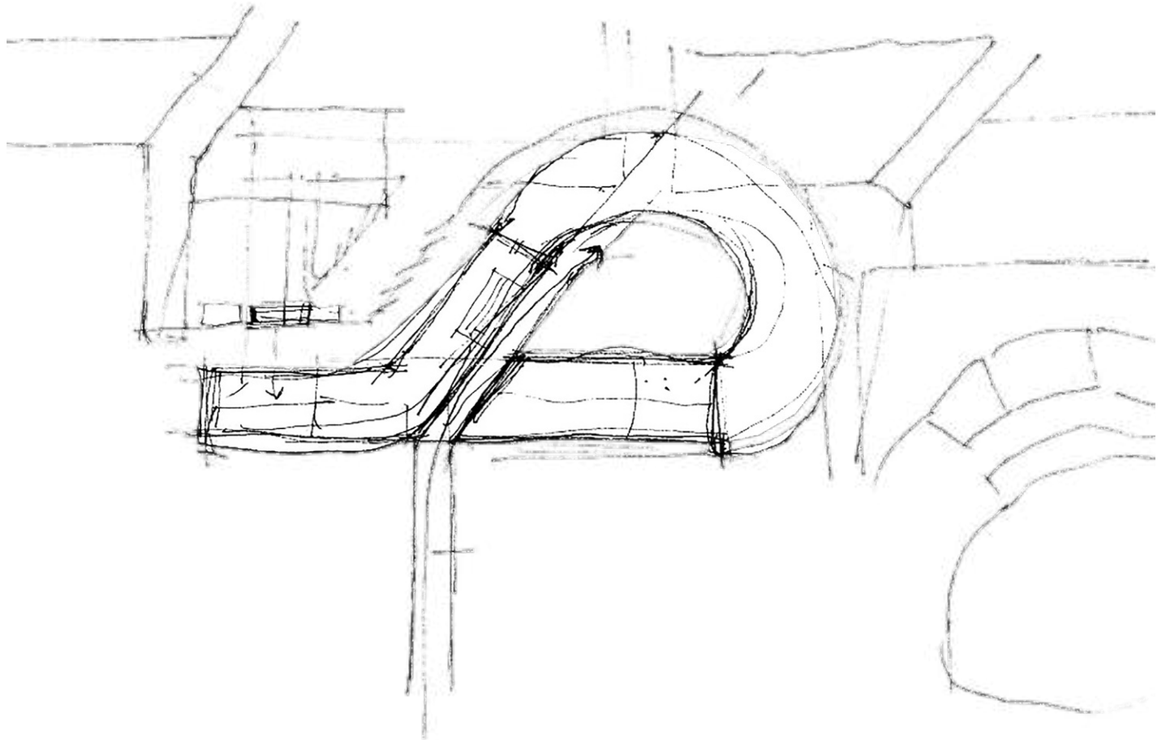
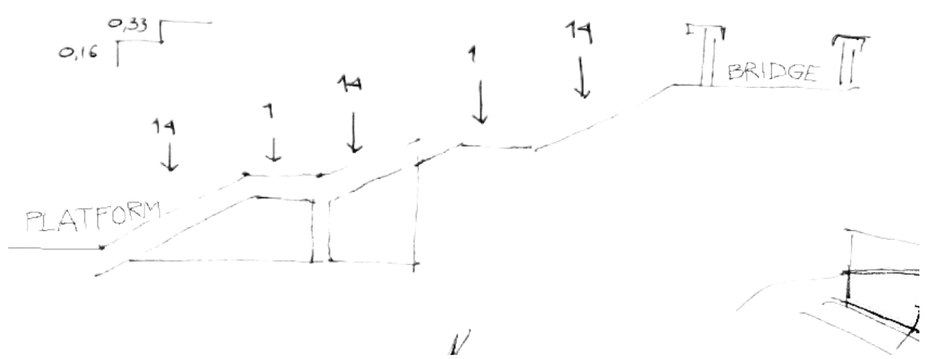
The station concept is designed as a central hub of the site that enlivens the entire area. The area is being regenerated as a zone for youth and recreation in which we have a mixed layout of industry, business and housing.

The bridge provides a continuous line of recreation, and connects the northern coast with the interior of Split.
The station is a link of branched structures.







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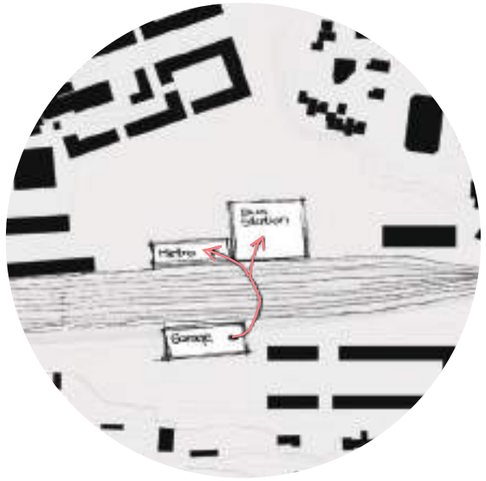
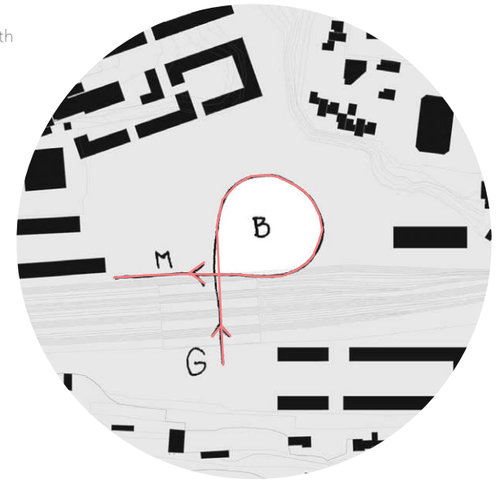
THE CONCEPT

STATION BUILDING + METRO + GARAGE
- need to connect



a bridge over the railway that will connect the garage with the station and further with the metro station



A promenade across the railway as a solution to the barrier created by the railway

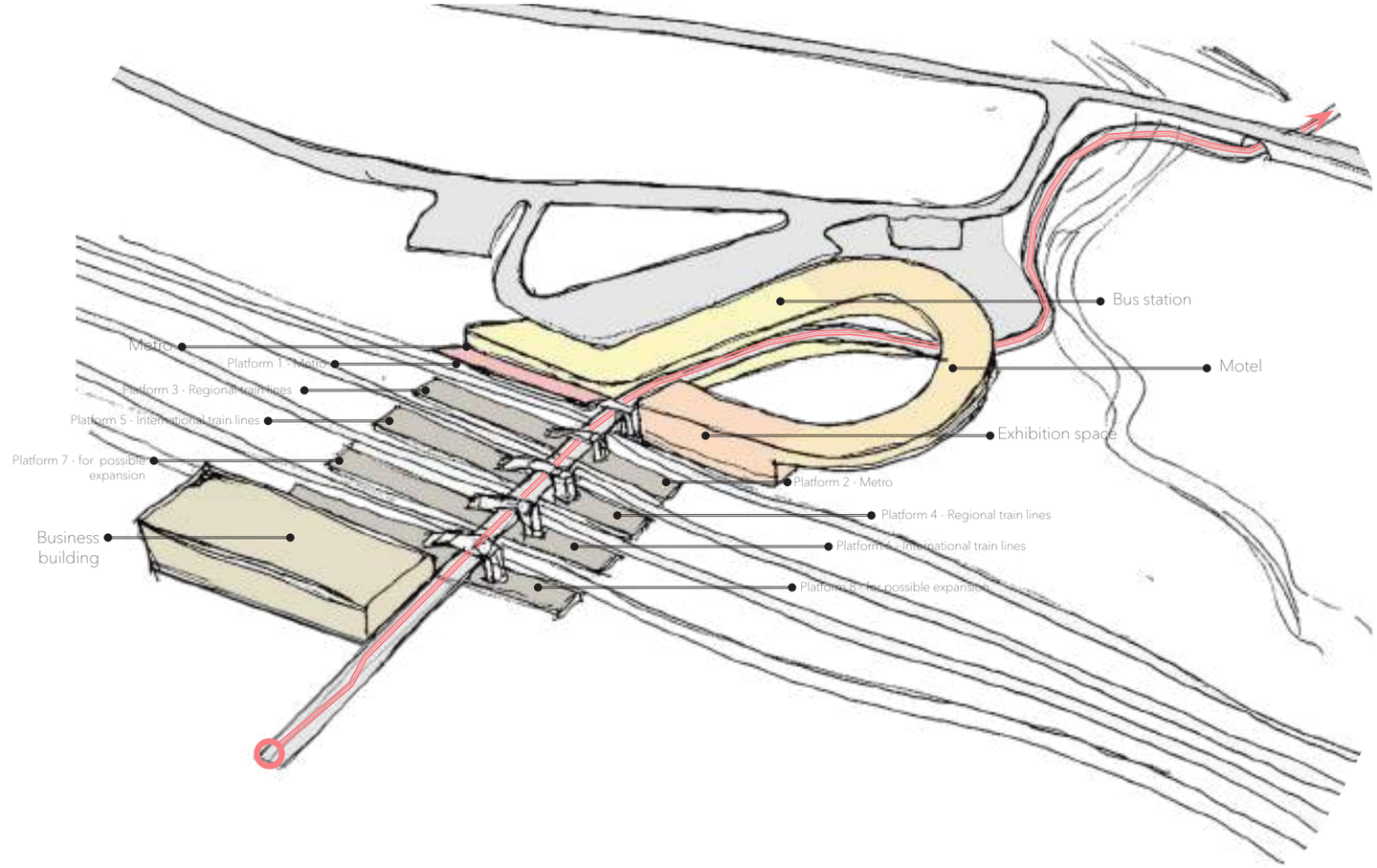


Fig. 193. *Bus station scheme*

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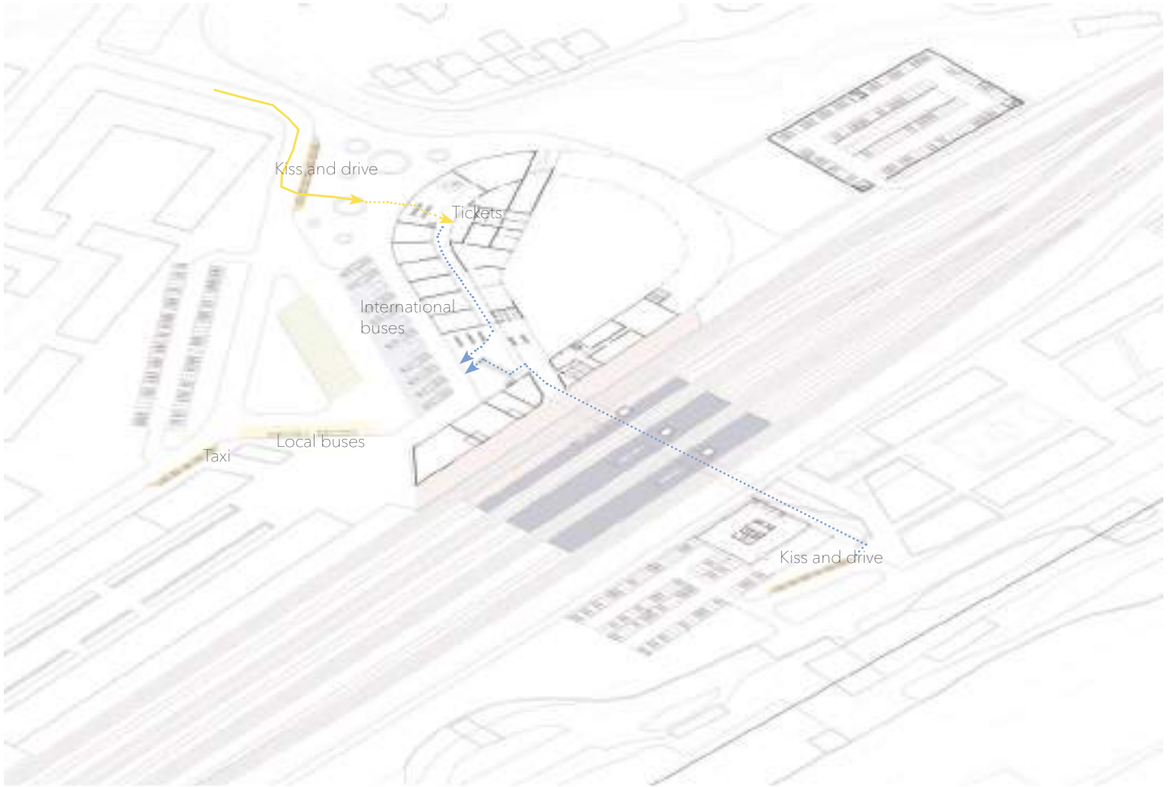
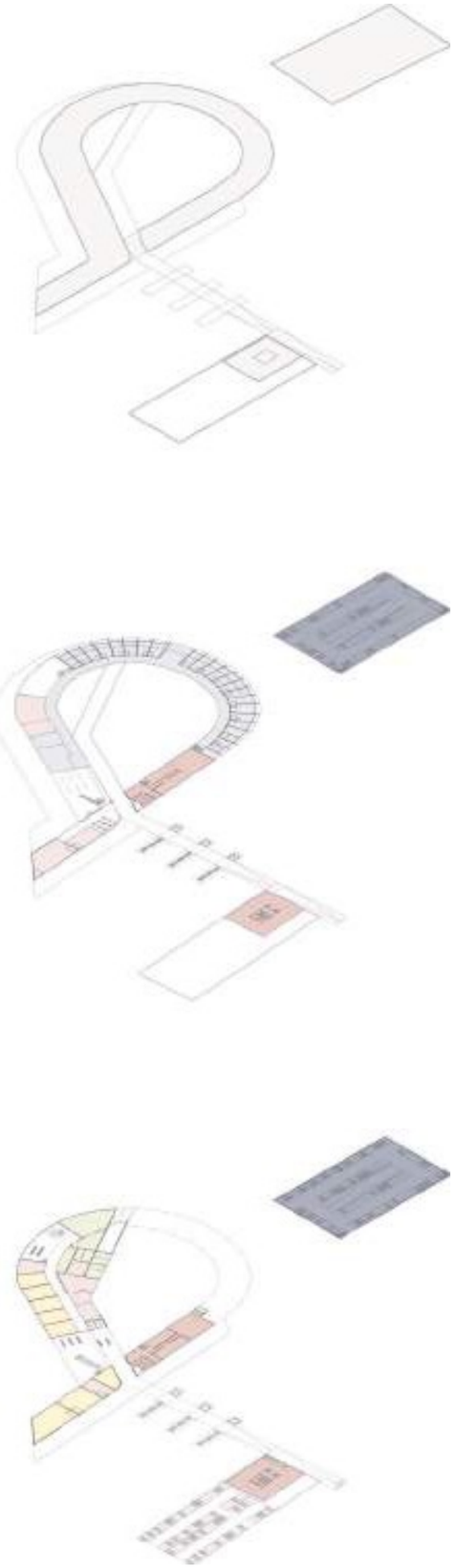
BUS STATION - Distribution of functions



Metro line
Parking for buses
Platform for trains
Bus platform - inernational buses
Bus stop - local buses
Kiss and drive

Fig. 195. *Scheme of functions*



Business and exhibition
Cafe, restaurant and drugstore
Administration,info desk and tickets
Garage
Motel
Shop, pharmacy,bank,post, travel agency

Fig. 196. *Distribution of functions*

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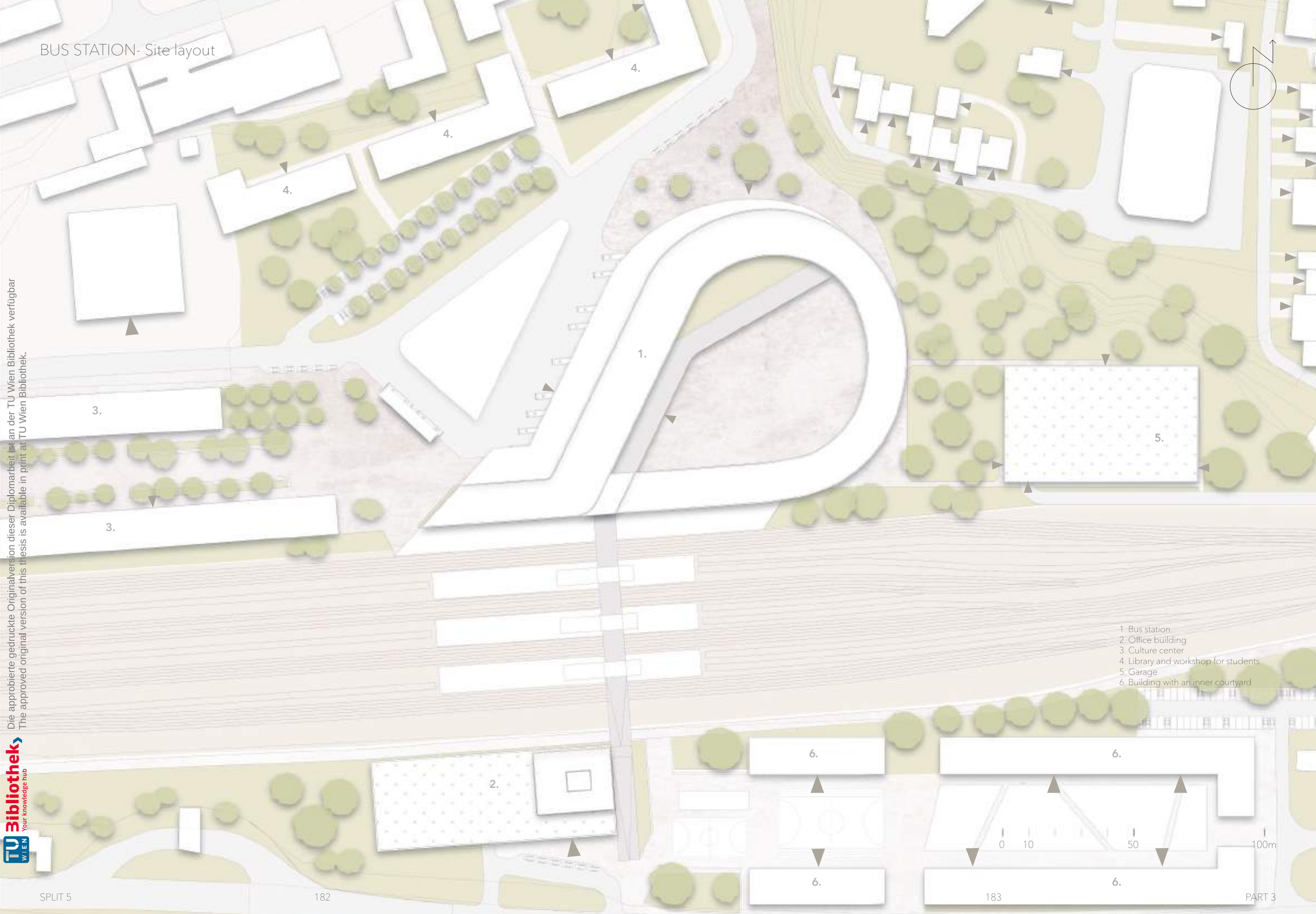
BUS STATION- Site layout



1. Bus station
2. Office building
3. Culture center
4. Library and workshop for students
5. Garage
6. Building with an inner courtyard

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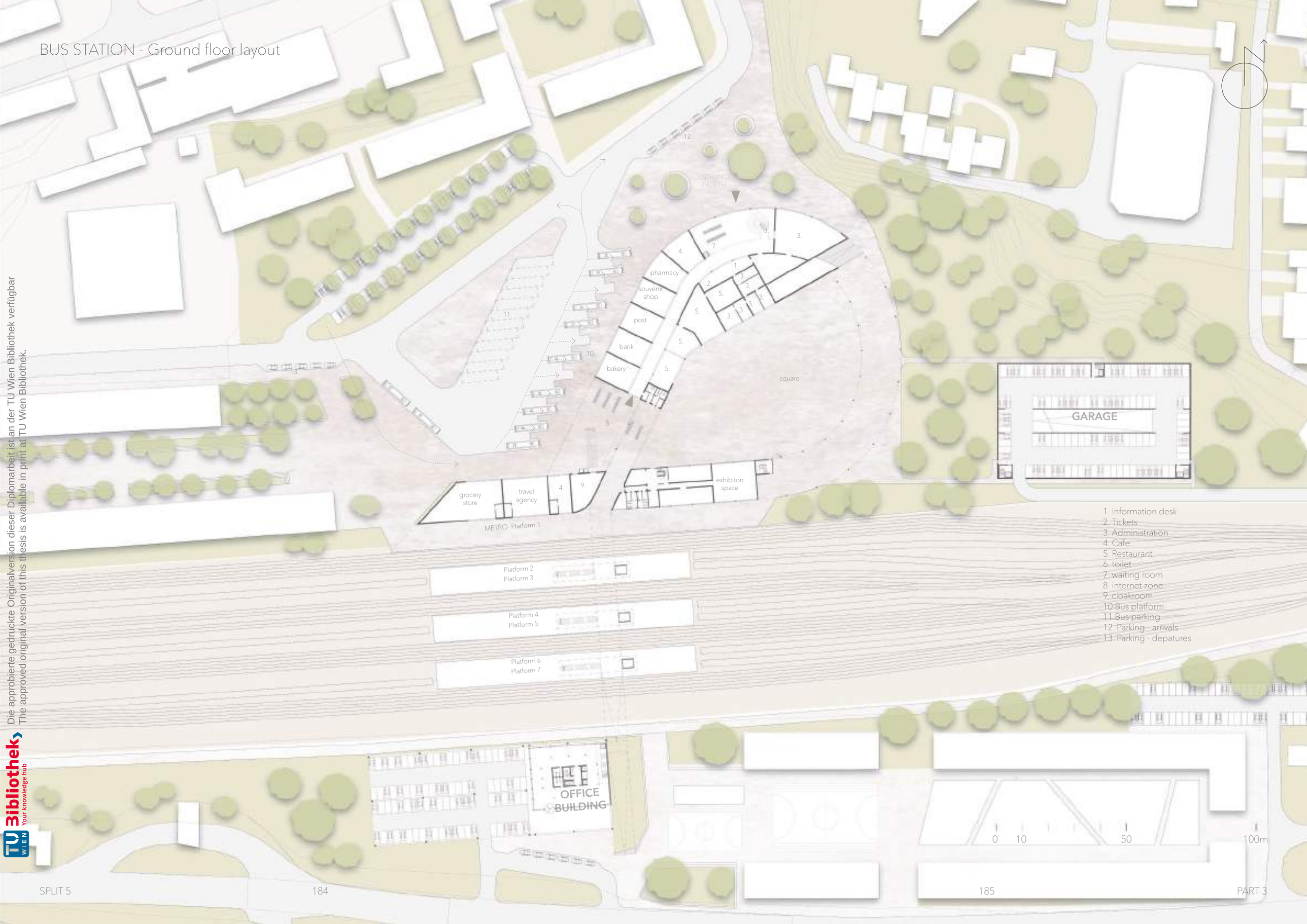
BUS STATION - Ground floor layout



1. Information desk
2. Tickets
3. Administration
4. Cafe
5. Restaurant
6. toilet
7. waiting room
8. internet zone
9. cloakroom
10. Bus platform
11. Bus parking
12. Parking - arrivals
13. Parking - depatures

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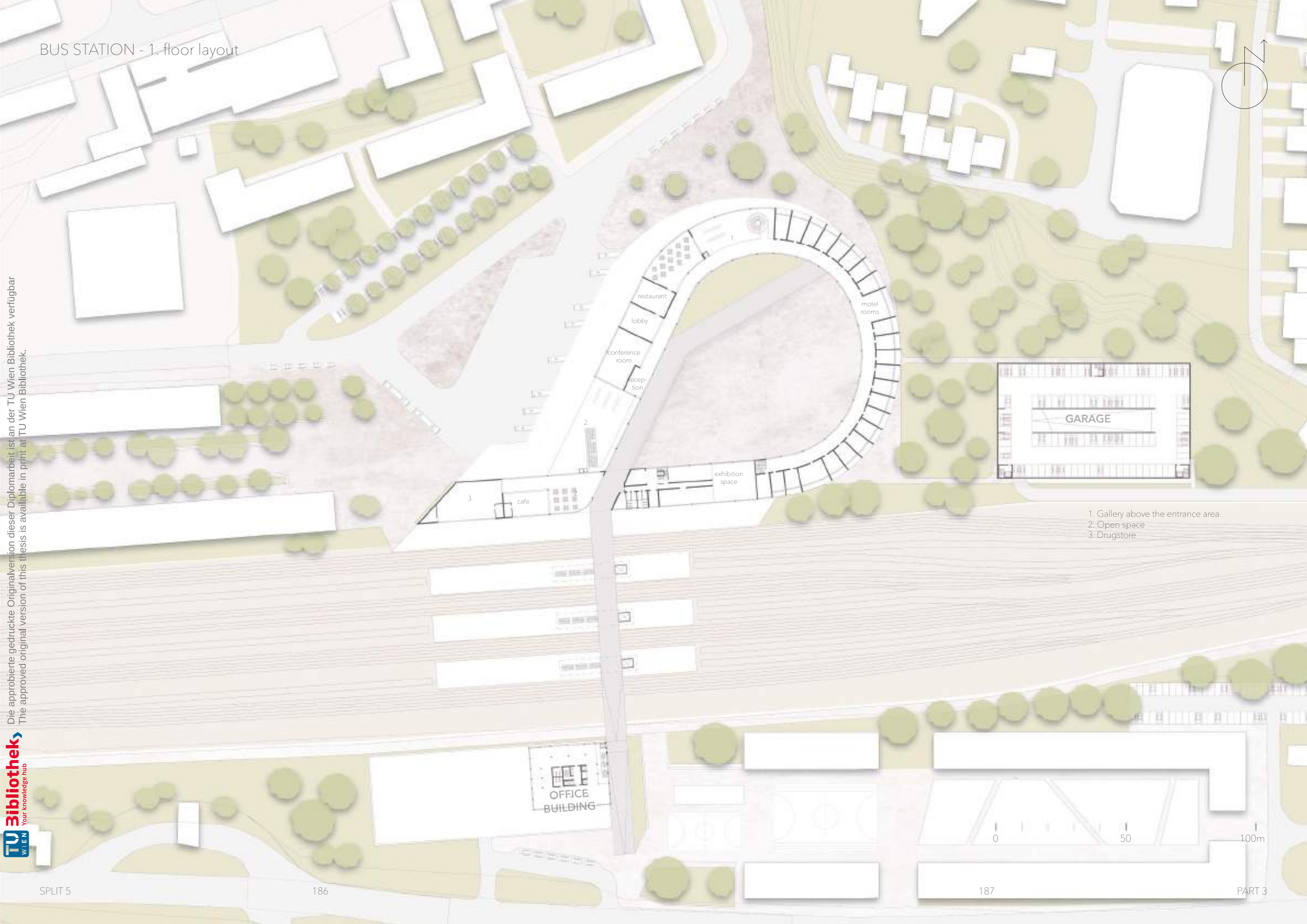
BUS STATION - 1. floor layout



1. Gallery above the entrance area
2. Open space
3. Drugstore

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BUS STATION - Section and view

0 10 50 100m

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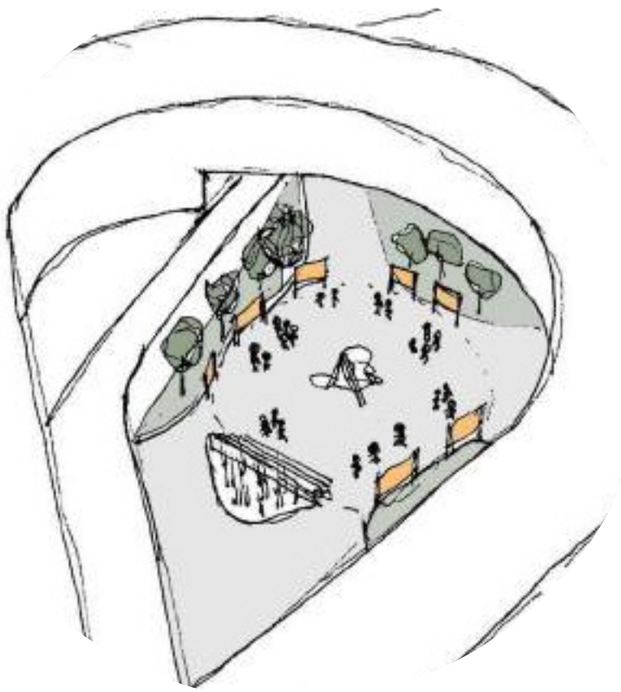
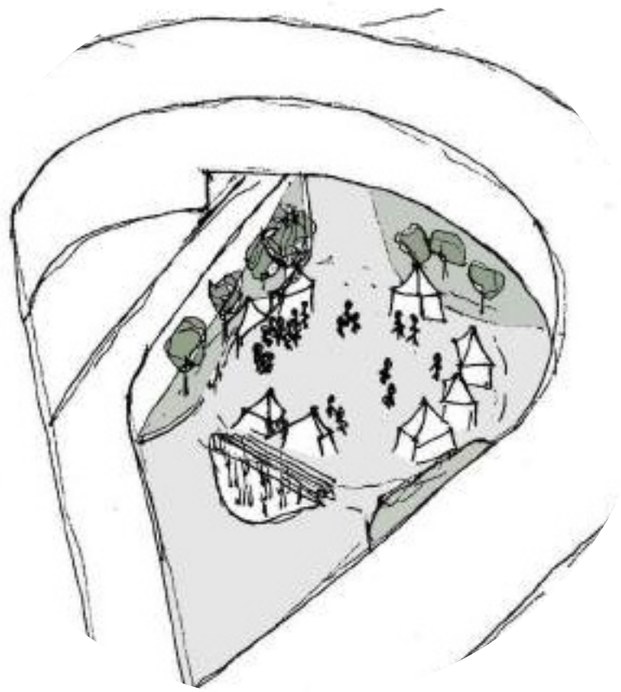
BUS STATION SQUARE - Scenario

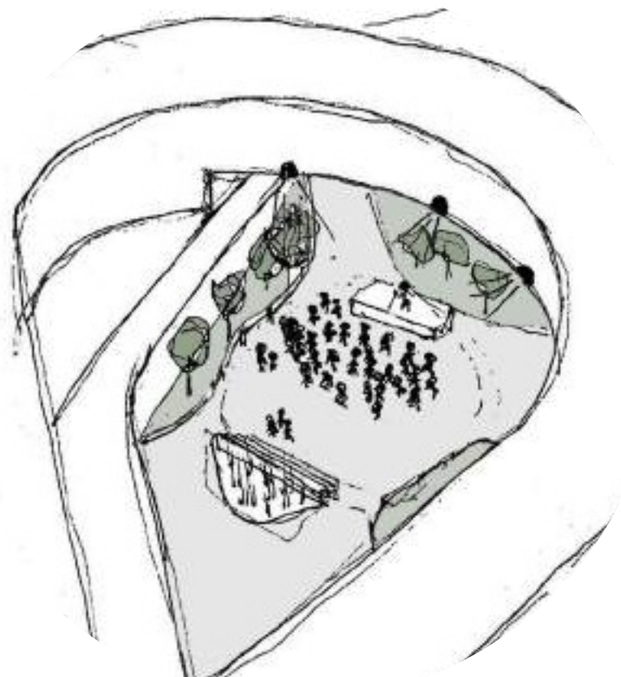
EXHIBITION



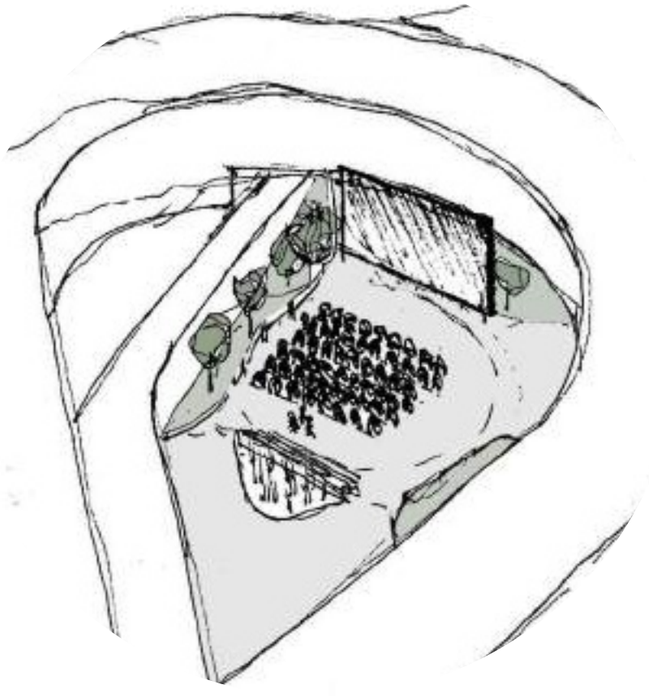
VILLAGE FESTIVAL



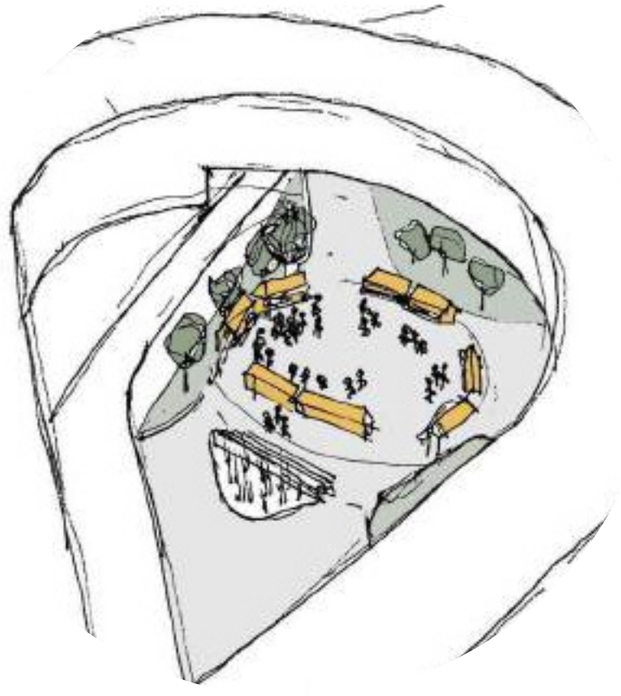
CONCERT



OPEN-AIR CINEMA



LOCAL MARKET DAY



ADVENT MARKET

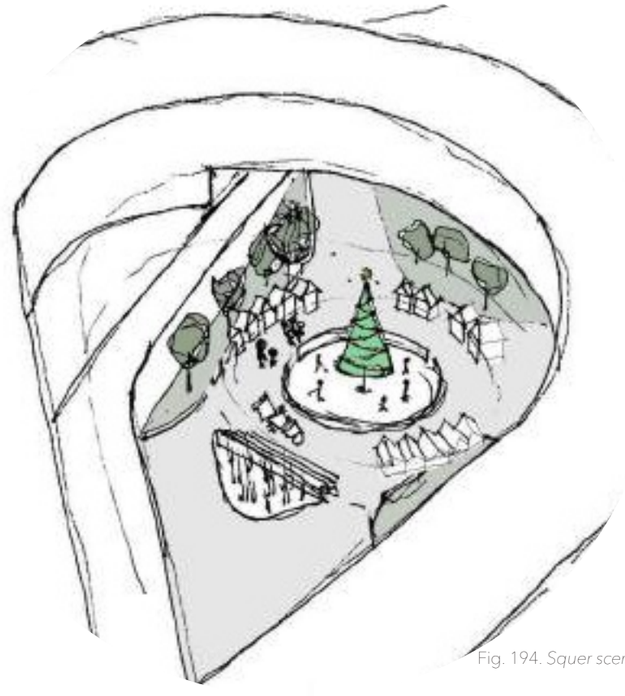


Fig. 194. *Squer scenario*

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BUS STATION - 3D view

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BUS STATION - 3D view

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PART 4

RECREATION

Fig. 197. *Recreation concept*

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Fig. 198. *Walking promenade*

Fig. 199. *Adding functions*

Fig. 200. *Space for public activities*

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RECREATION AREA - Layout

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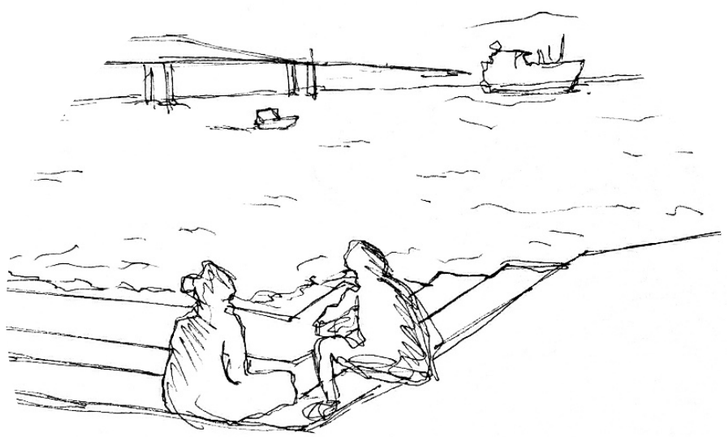
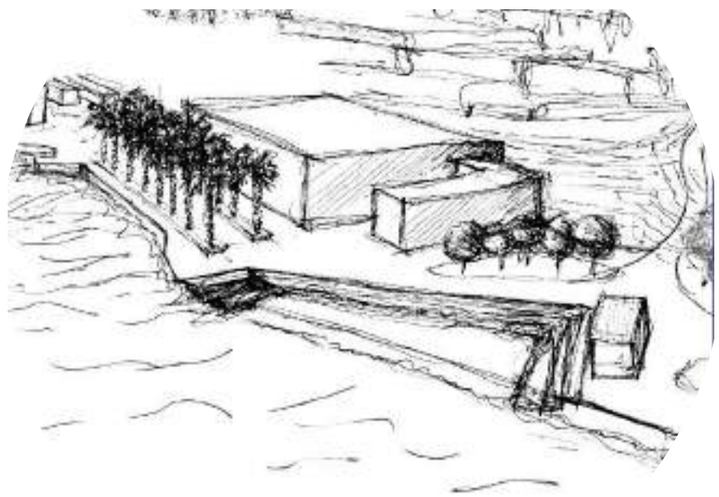
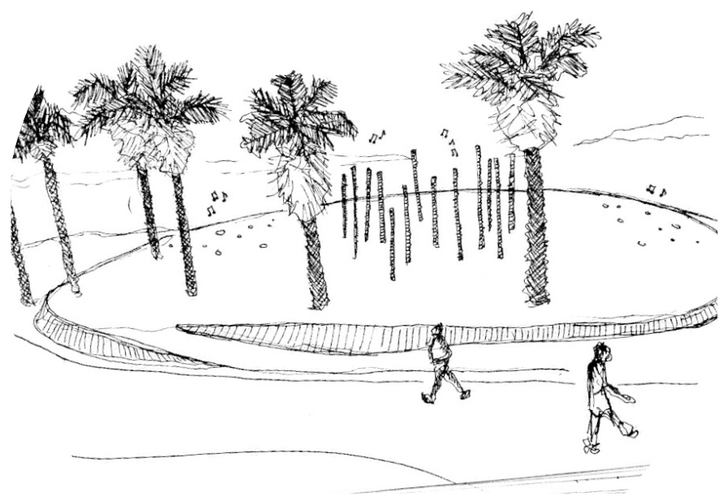
stairs in waves



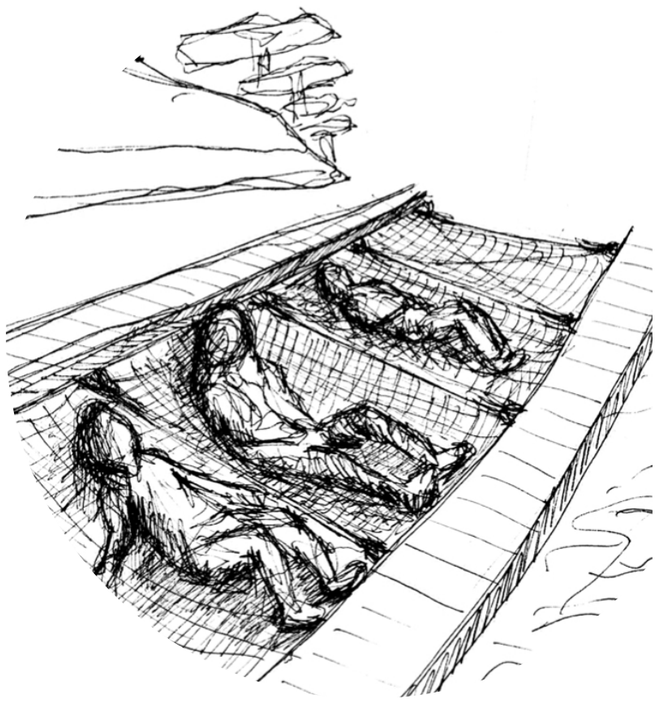
an avenue of Palm trees



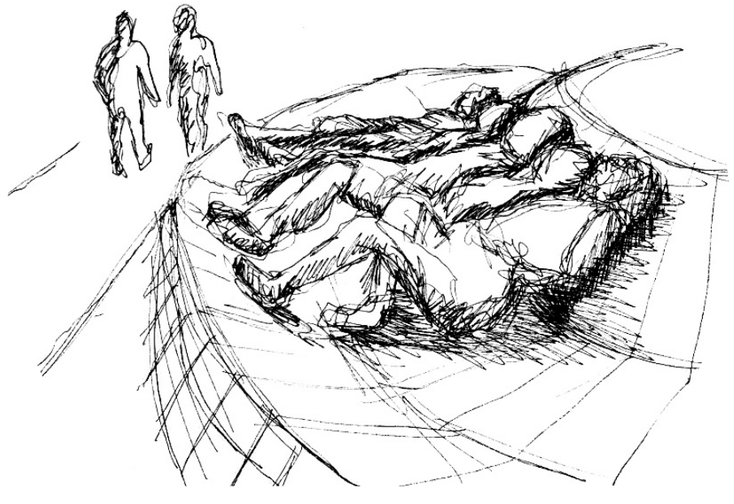
sea and wind organ



deck chair above the water



relaxing zone



central park

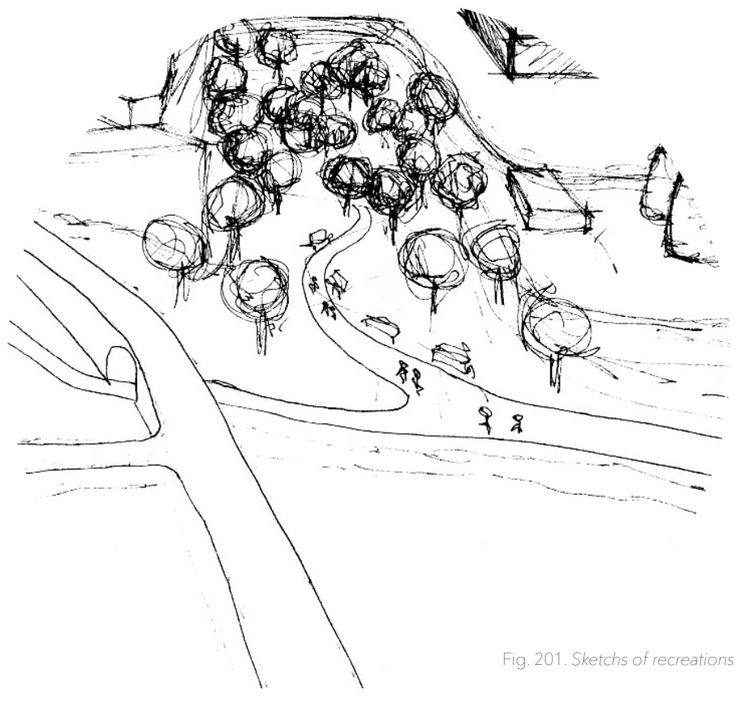


Fig. 201. *Sketchs of recreations*

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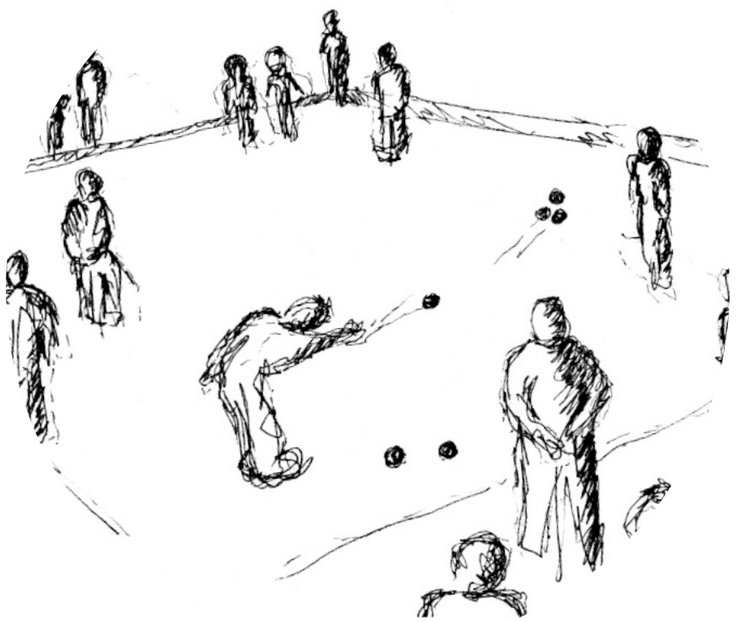
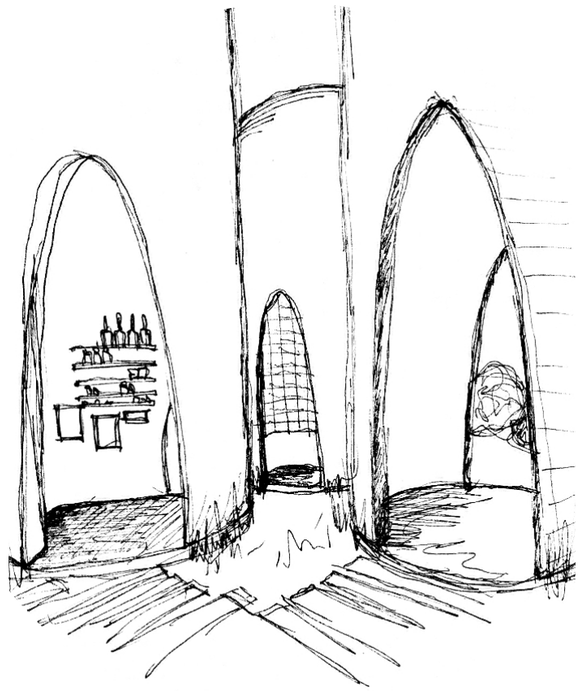
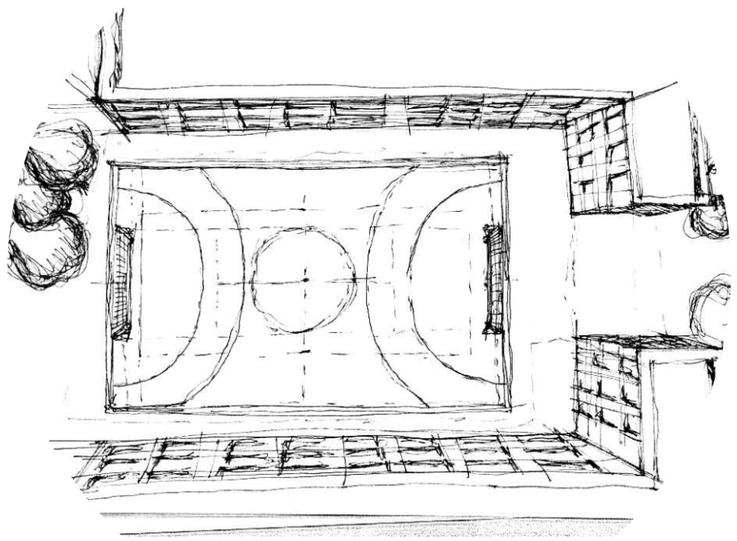
boule



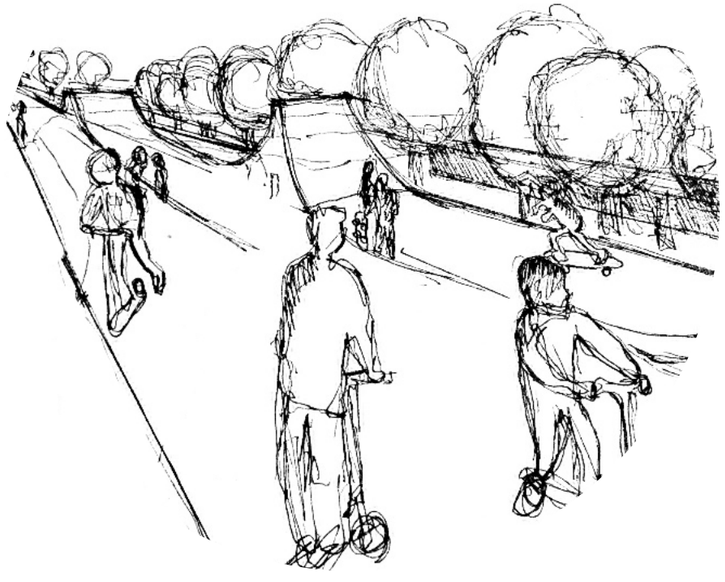
wine tasting houses



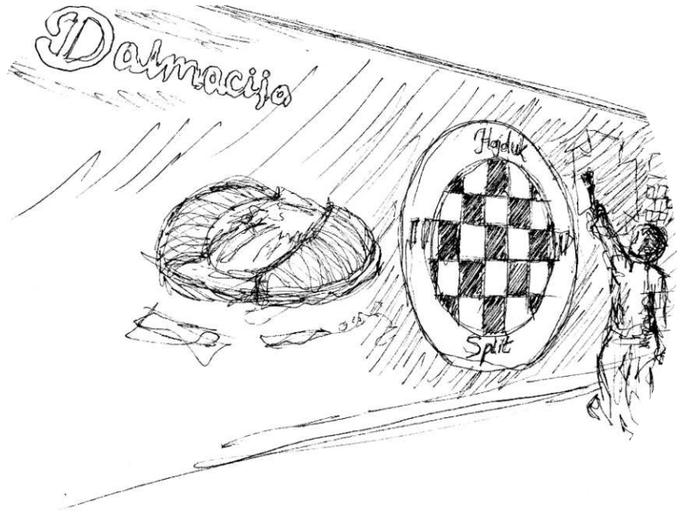
sport



skate park



graffiti walls



urban agriculture

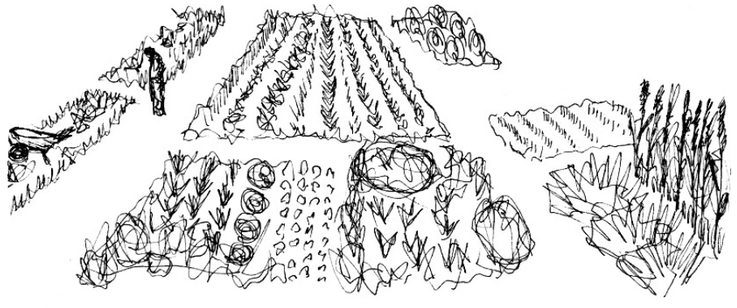


Fig. 202. *Sketchs of recreations*

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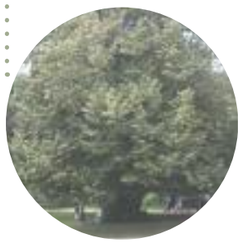
PLANNED GREENERY PLACEMENT

Species for tree lines along roads and parking lots



Tilia tomentosa/ Silver linden

Quercus ilex/ Evergreen oak

Celtis australis/ European nettle tree

Prunus serrulata/ Japanese cherry

Ornamental shrubs (planted individually and in groups) for larger green areas - parks, smaller and larger

Weigelia(Newport Red)/ Weigela

Abelia floribunda/ Mexican abelia

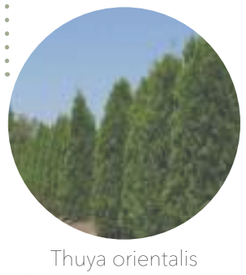
Spiraea x vanhouttei/ Vanhoutte spirea

Juniperus chinensis/ Chinese juniper

Forsythia Lynwood Gold/ Golden Bell

Juniperus horizontalis/ Creeping Juniper

Evergreen seedlings for parks and smaller green areas (planted individually and in groups)

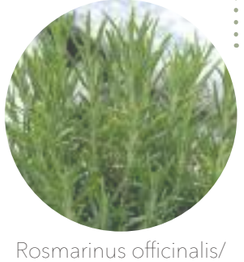


Thuya orientalis (Emeraud)/ Platycladus

Thuya orientalis (Pyramidalis Aurea)/ Platycladus

Soil covering species, Mediterranean species - smaller and larger groups - groups from 20 to 200 pcs.

Lavandula angustifolia/ Lavender



Rosmarinus officinalis/ Salvia rosmarinus

Species for lower tree lines along promenades

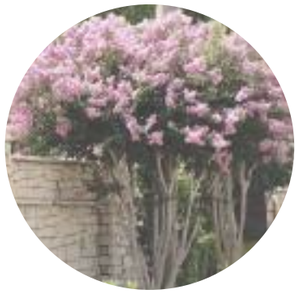
Prunus cerasifera/ Cherry plum

Lagerstroemia indica/ Crape myrtle

Cercis siliquastrum/ Judas tree

Trees for green areas
(Specifically for parks) individually or in small groups (up to 5 pieces depending on the size of the green area)

Magnolia Grandiflora(Gallisoniensis) / Southern Magnolia

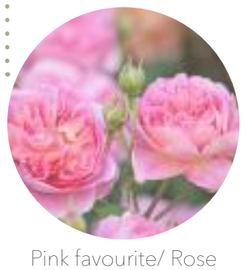


Lagerstroemia indica/ Crape myrtle

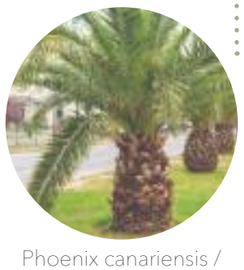
Prunus cerasifera/ Cherry plum

Cercis siliquastrum/ Judas tree

Can be placed anywhere, best if planted in groups



Pink favourite/ Rose



Phoenix canariensis / Palm

Fig. 203. *Plants for the location*

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PART 5

INDUSTRY AND RUINS

The current state of the industrial zone is not in a satisfactory framework. Of the entire area, there are only a few facilities that work well and it is unnecessary to exclude them from the whole story. As a prerequisite for further development of the site, it would be crucial to restore and redesign existing unused content for future use. A step further would be to include an area next to the industry that represents empty free space for the purpose of creating a new industry. To give the existing one even better quality. The concept of not abolishing the industry, but quite the opposite, reviving it, is based on the fact that the location requires a mix of content that would constantly make it active. On the left side of the location there is a shipyard that would have a Techno.park for boats in the continuation of its story. The technology park would be a series of buildings that would serve the purpose of enabling new generations to develop their ideas and make new prototypes for ship parts as well as their content and appearance.

Furthermore, we know that Dalmatia is known for its many rich fruits of its nature, which is why tourists have always been unavoidable. Olive, wine, fish and a number of other values are some recognizable signs of it. As a continuation of the idea of reviving the location with an industrial zone, a smaller agro-industrial park would be additionally included. To continue this story, a market would be built in parallel with it, which would take fresh fish directly from the northern port with small families and place it for sale. This would significantly relieve the market in the center and Kopilica would get a new domain, a new center, by which urbanism in Split grows to a polycentric state, which makes it work well as such.

Agro-industrial zone: The key to regional development in the modern world of creating a productive and revolving system of agro-process enterprises is in terms of job creation and increasing standards. The growth of agronomic economic systems is in fact the economic development of regions. In order for an agro-industry to be efficient, it is crucial to use technology and human resources skills to increase efficiency, initiate the creation of quality competitive products within a given timeframe and create a quality system throughout the supply chain.

An efficient agro-industrial program is necessary to create a better and more basic agro-industrial zone, unfortunately the beginning of the whole story takes place at the state level whose success depends on political decisions and the support of relevant institutional bodies.

The very concept of the Agro zone was created as an attempt to create an opportunity for small and medium-sized enterprises to achieve competitiveness that would otherwise be difficult to achieve due to the high cost of modern technology and unaffordability, and in order to revive local agro-tourism.

The agro-industrial zone and technology park should have: access to qualified staff and research in the field of zone identity, the possibility of commercializing products and services, the possibility of providing industrial, research and marketing expertise to companies within the zone, especially small and medium enterprises which, especially for financial reasons, have difficulty accessing such services; be integrated into the local community and the wider region and enable the protection of products and possible patents produced within it; be able to choose which companies enter the zone. The company's business plan must be compatible with the identity of the zone itself; have a "pure" identity, often expressed and symbolically through names, logos or other marketing methods; have management with recognized expertise, due to financial aspects and long-term plan development of the region; have the support of strong, dynamic and economically stable actors, such as development agencies, closer universities and / or certain political institutions; have within the governing body of the zone an individual with a vision, with sufficient decision-making power and a transparent profile, recognized by relevant community factors and which can be a link between academia, public sector and industry, long-term plans and current management, etc., contain a certain percentage of consulting , technical and service companies and centers for quality control and environmental protection.

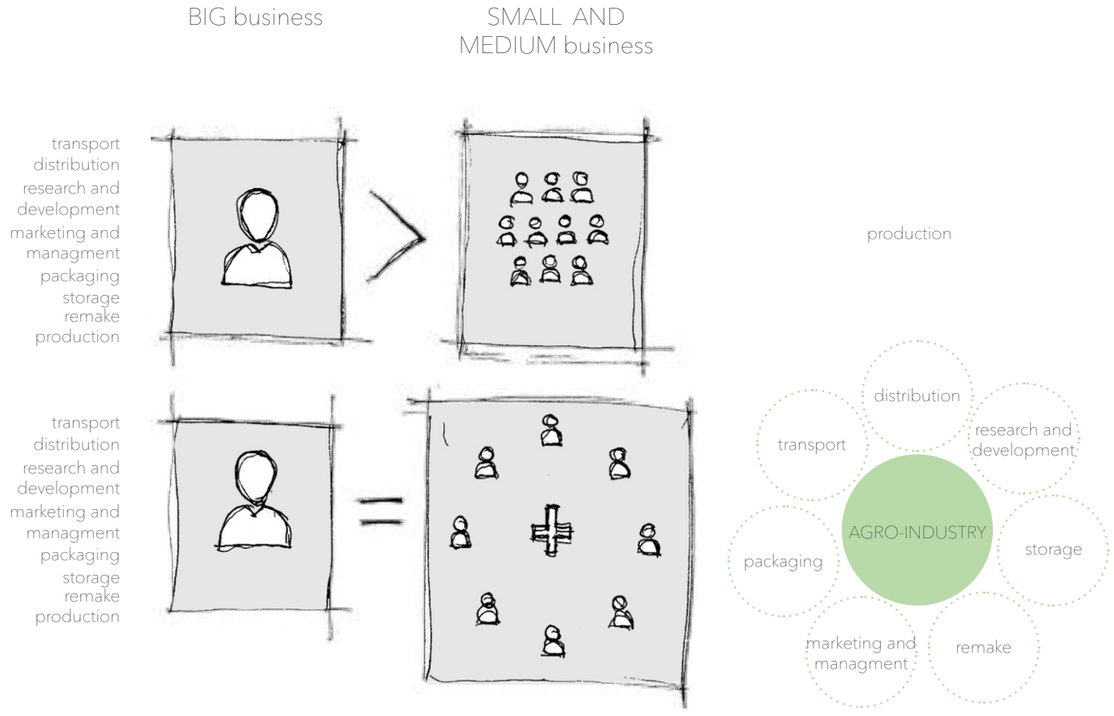

Fig. 204. *Comparison scheme*

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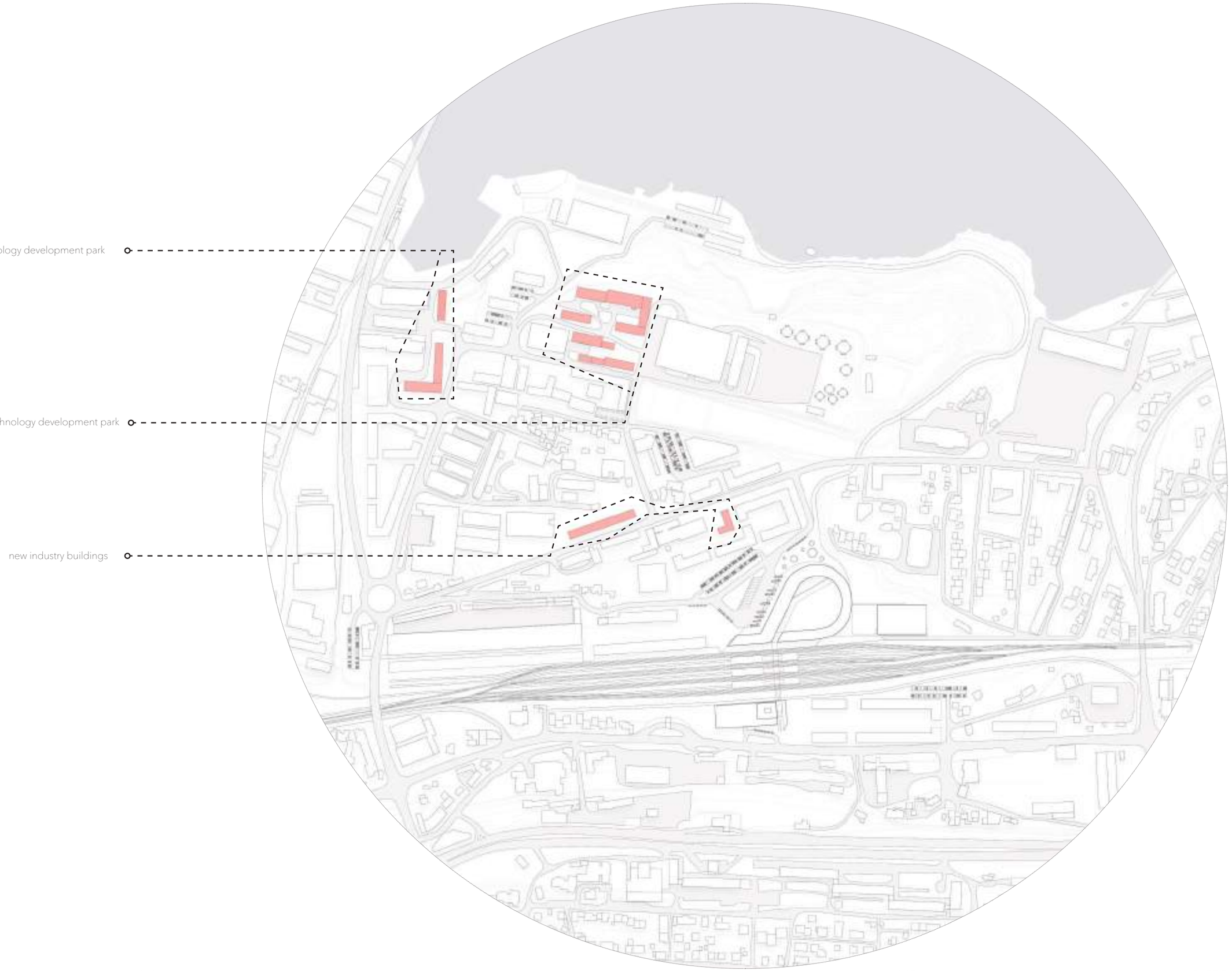
INDUSTRY MAP



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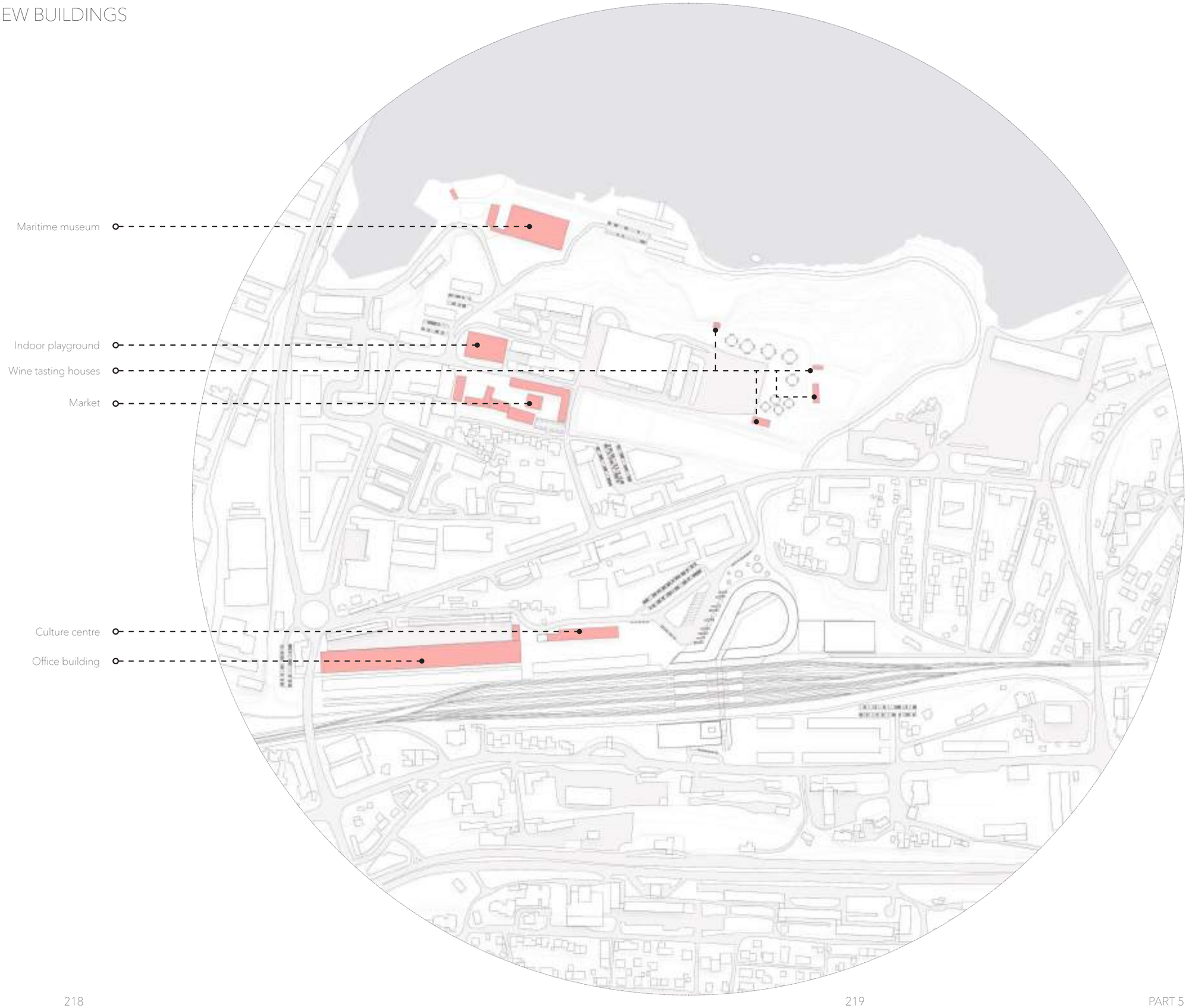
RUINS TRANSFORMED INTO NEW BUILDINGS



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PART 6

HOUSING

HOUSING - Concept

The concept of housing is divided into several segments.
In the first part, in addition to the existing structure of family houses, additions are made, which continues the urban series of the same units in order to increase the population density of that part.

In the next step, new housing units are being built and renovated on the sites of former ruins, on sites that were unused and on sites of already existing housing structures.

All units are made with the same concept, to provide the owners on the one hand an intimate zone and on the other a common space with neighbors in order to better bring people together..

The next step is to build new units that are divided into several types:

-Terraced houses with garden
- Buildings with an inner courtyard
-Buildings with a corridor as a common space
-Multiple family houses with garden
-Multi-storey buildings

All residential buildings are designed mainly with apartments of 35-55m2, which meets the requirement previously stated in the definition of the task. Family houses are designed for about 200m2

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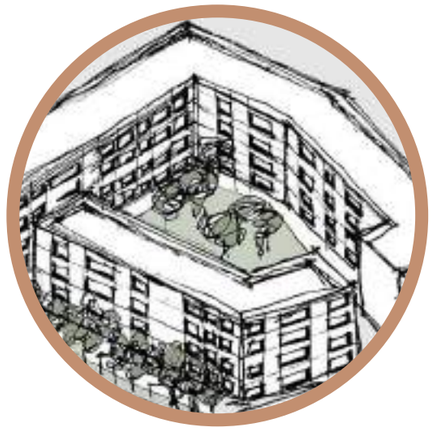
1. Multi-storey buildings

2. Building with an inner courtyard

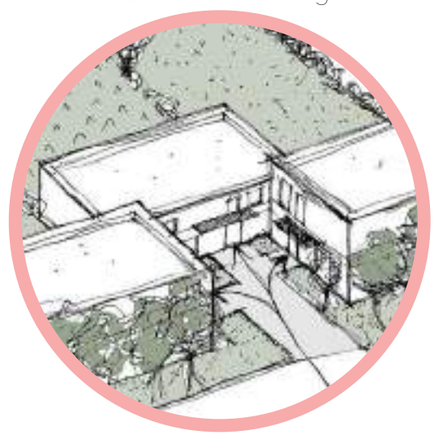


3. Simple houses

4. Buildings with a common corridor

5. Multi-family house with garden

6. Terraced houses with garden



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multi-storey buildings

Multi-storey residential buildings are placed parallel to each other. With their form they complement a number of industrial zones, which in the urban sense is a linear form of the northern zone. They are located in the northern part of the site for the purpose of less wind penetration (bura - strong northern wind) on the site. With the same goal, they are designed to be on several floors so that their size can further enhance the given goal. They have a good connection with the north coast, provide a greater opportunity to live in a good location. Their estimated height is 10,13 and 16 floors.
They are conceptually designed as green buildings so that each unit has a green oasis inside.
Parking integrated in and around the basement of the building.

building with an inner courtyard

Buildings with an inner courtyard are urbanistically planned in zones next to high traffic intensity with the aim of concentrating on the green core within the complex. The complexes are made to be as long as possible, with as much space as possible in order to form a central core in which recreation and green areas will be located. This increases the quality of housing regardless of the zone in which the facility is located. Estimated height of the building is 6 to 8 floors. The units have parking right next to them.

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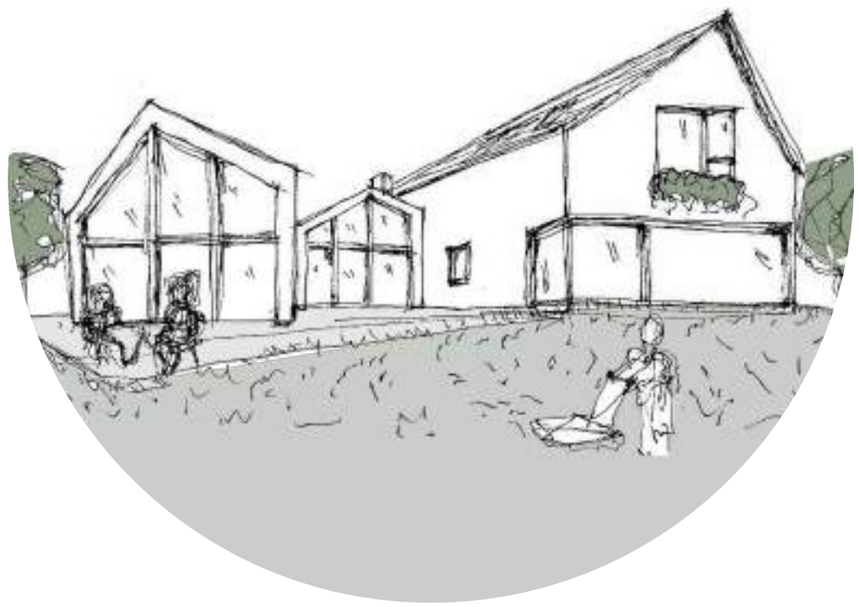
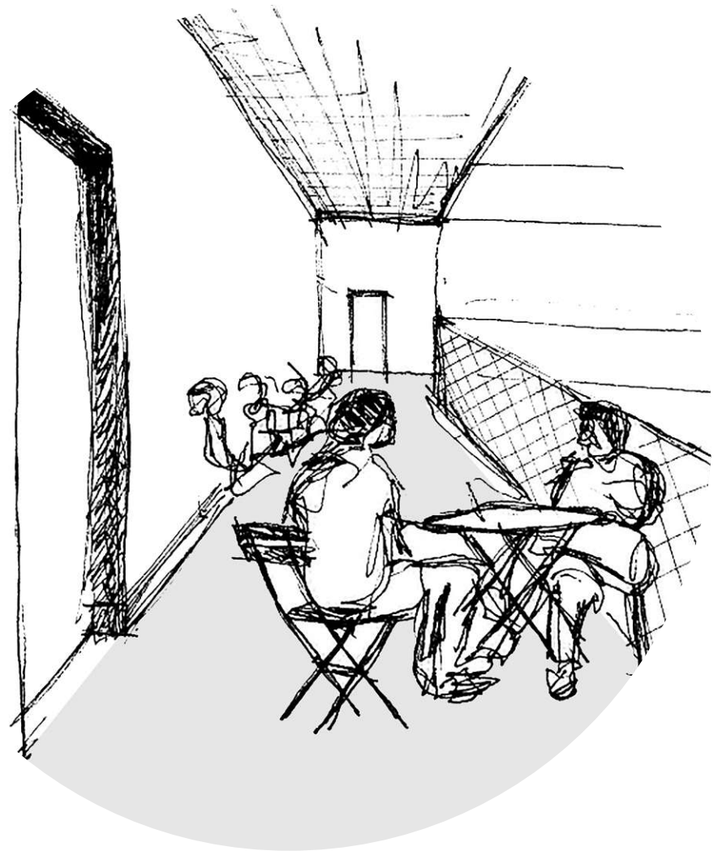
simple house



Simple houses in the urban context are a complement to a given area that previously had the same purpose. With their floor plan, they correspond to the family house at the request of the investor. The house layout was taken from the surrounding area as a suggestion to the given area. The units have 2 parking spaces on site.
The height of the house varies from one to three stories

buildings with a corridor as a common space



Buildings with corridors as a common space represent a new type of housing that has a designed corridor greater than or equal to 3m. The corridor is open and serves so that each unit can have one space in front of its entrance as a purpose for socializing. The corridor is designed on the quiet side of the site while the main facade faces the street. Their estimated height is 4 to 6 floors. Parking is planned within the unit and right next to it.

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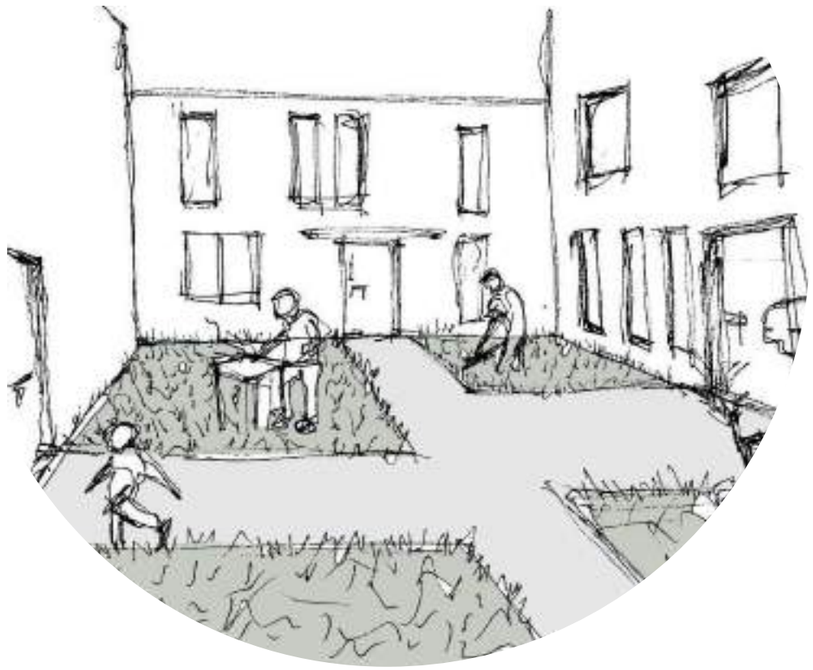
multi-family house with garden

A multifamily house is designed in such a way that the units connect with each other forming a single linear sequence. The buildings have a yard in the back serving as a garden for planting a variety of fruits and vegetables and as their intimate space, while the front of the more open space for socializing, which allows the resident a higher quality living. The estimated height of the building is 2 to 3 floors, with each floor containing a minimum of 2 apartments. Parking is located directly in front of the unit.

terraced houses with garden



A residential building row consists of a group of 3 units of a single family house with the desire to position the entrances to all units from the central public part. The houses are urbanistically placed in a quieter zone, linearly with a different rhythm that fits them into the environment. They are located in the eastern part of the site as a continuation and response to the neighboring settlement in the east. The front central part is a multifunctional space for socializing, while each unit has an individual private garden as an intimate space, which ensures a better quality of housing. The projected height of the unit is one to two, maximum 3 floors. Parking is integrated in the unit.

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note of thanks

Hvala mojoj obitelji,posebno mojim roditeljima **Antoniu i Dragani !**

Hvala svim koji ste cijelo vrijeme bili tu, na vašem strpljenju i ljubavi!

Posebna hvala Irfanu S., Ivi G., Ivani Ž. i Amini C.

Hvala Markusu Tomaselliu, Neli Kadić i Ani Grgić !

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