MASTER THESIS

SLOVENIAN MANCHESTER
Reconstruction of the former Textile Institute and a new vision for the post-industrial site Melje

Gaja Žnidaršič, Bsc

Gaja Žnidaršič, BSc

SLOVENIAN MANCHESTER
Reconstruction of the former Textile Institute and a new vision for the post-industrial site Melje

MASTER THESIS

to achieve the university degree of Diplom-Inginieurin
Master s degree programme: Architecture

submitted to
Graz University of Technology

Supervisor
Franziska Hederer, Assoc.Prof. Dipl.-Ing. Dr.techn.

Institute for spatial planning

Graz, July 2020

AFFIDAVIT

I declare that I have authored this thesis independently, that I have not used other than the declared sources/resources, and that I have explicitly indicated all material, which has been quoted either literally or by content from the sources used. The text document uploaded to TUGRAZonline is identical to the present master/s thesis dissertation.

signature

date

Acknowledgments

I would like to thank my family for supporting me throughout my studies and my friends for all the moral support. I would also like to thank my mentor Franziska Hederer for always taking the time and Eva Schwab for additional advice on urbanism.

table of contents

Fig. 1: View of Melje

Introduction

The area I am focusing on in my thesis is Melje, a former industrial site in Maribor that once represented the heart of industrial production. In the past, several successful industrial companies were situated there due to its favourable location next to the railway. The most successful one among them was The Maribor Textile Factory. Every day, the factory brought hundreds of workers to the area. As the most industrially developed part of Yugoslavia, Maribor was soon baptized as the Manchester of Yugoslavia. However, after the textile industry production started declining and eventually shut down completely, the golden days of Maribor were over.

Today, the area is still characterized by the past and present industry. If you walk through the district on the weekend it appears quiet and abandoned, aside from the occasional traffic noise. Only a few residential buildings are located in the area. The buildings of former Maribor Textile Factory stand abandoned or are used as storage facilities. My focus lies on one of the buildings, the Textile Institute, which was associated with MTT. Today, this modernist building stands abandoned, windows are broken and the colour of the facade is peeling off. It is constantly being put on auction, but no interested buyer has yet been found.

However, the area still has potential for transformation. In comparison to other former industrial sites of Maribor, the district is relatively close to the city centre. It is situated next to the river Drava, that runs through Maribor and separates it into northern and southern part. The place offers a perfect opportunity for the city to develop within its limits, without needing to expand. However, this will not happen until the scales move and the distribution of functions changes to offer more favorable conditions for residents and to increase the added value to the society.

The aim of my thesis is a general proposal for a new development of the district and conversion of the former textile institue to a cultural centre with exhibition spaces, which focus on the industrial identity of the area, specifically that of the textile industry. Perhaps this intervention can be the turning point, and one of the factors that will bring the area back to life.

1 I about the location

about maribor
urban and historical development of maribor
development of industrial production in maribor
textile industry in melje
maribor textile factory
industrial zone melje

Fig. 2: Location of Maribor

About Maribor

Maribor is the second largest city in Slovenia, located in the north-eastern part of the country. This once industrial town today represents the cultural, educational, economic and administrative centre of the north-eastern Slovenia. The city has a population of 110.000, with the greater town area amounting to 150.000 inhabitants.

The city formed at the juncture of five natural-geographic units; Pohorje, Slovenske gorice, the Drava Valley, Kozjak and the Drava Field. It is located at the intersection of two natural paths.The first one is river Drava that flows through the city and divides Maribor into the northern and the southern part, and the second, meridian path, is the transitional path across Drava from Graz basin towards Celje basin.

Development of the city was influenced mainly by its natural location. The old town core is compressed between Drava terraces and Slovenske gorice hills in the north. From above, the city appears as a rectangular grid of building sequences and traffic connections in the north-south and west-east direction. The city first developed on the left bank of river Drava, where the old town is situated. It was not until much later that the city started expanding to the east, towards Meljski hrib (Melje Hill), and later in the 20th century, to the south, towards Pohorje and Stražun forest on the right bank of Drava. This development was rapid and was not accompanied by an adequate urbanization process. Consequently, the main urban components of the city today are still on the left bank of Drava, in the old town, or alongside it.[1]

Maribor lies at the intersection of two Pan-European traffic corridors, corridor 5; relation Venice-Trieste/Koper-Ljubljana-Maribor-Budapest-Uzhhorod-Lviv-Kiev and corridor 10; relation Graz-Maribor-Zagreb. The Maribor highway junction leads traffic towards Austria, Hungary, Ljubljana and Zagreb and the railway junction leads railway traffic towards Graz, Klagenfurt, Ljubljana and Hungary. An international public airport is also located in Maribor.[2]

1 cf. Lega in podnebje, http://www.maribor.si/povezava.aspx?pid=3794, 16.5.2020
2 cf. Dostop do Maribora, http://www.maribor.si/povezava.aspx?pid=3795, 16.5.2020

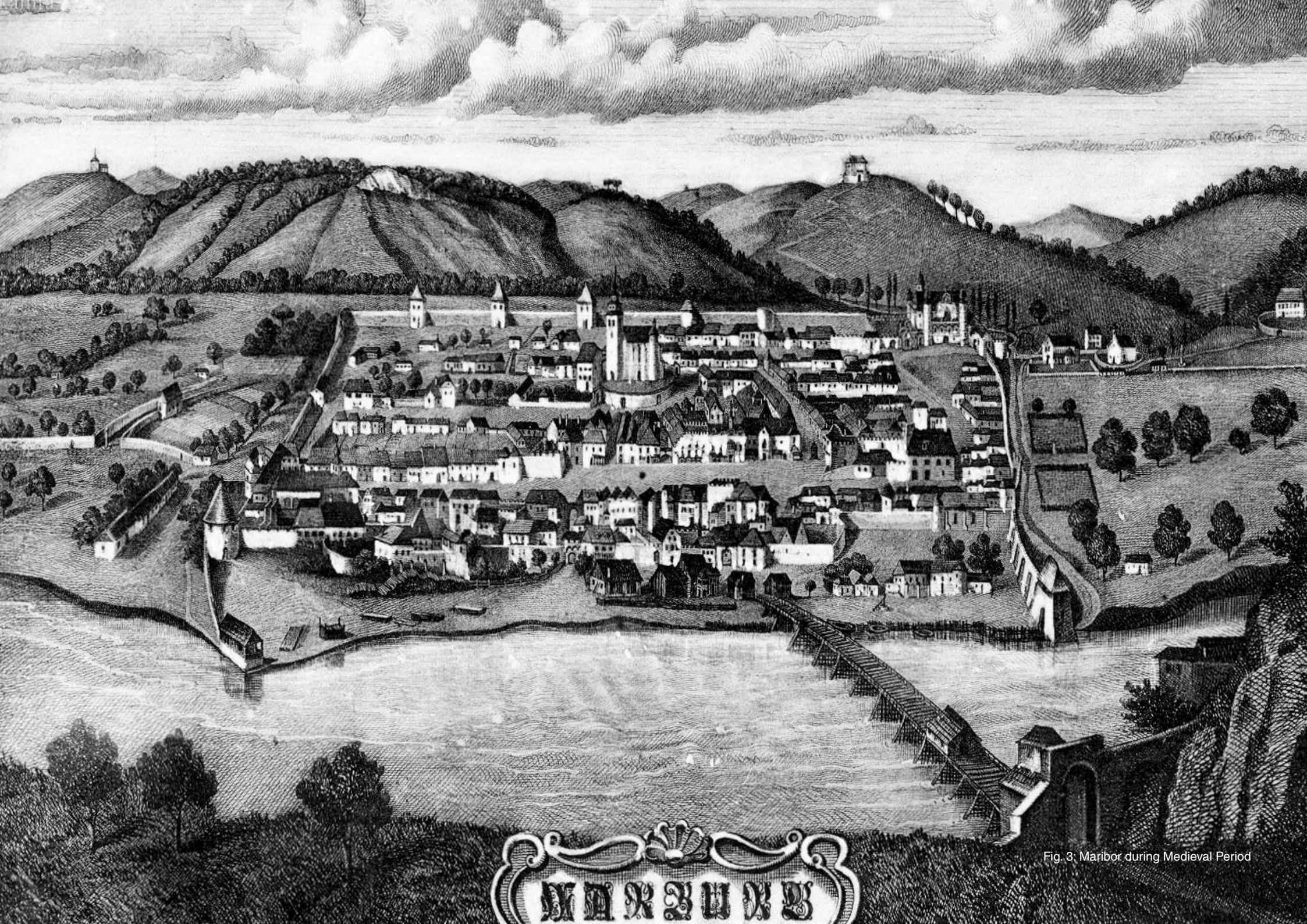


Fig. 3: Maribor during Medieval Period

3 cf. Varl/Tomažič/Radovanovič 1997, 13
4 cf. Majcen 1926, 38
5 cf. Judi v Mariboru, http://www.sinagogamaribor.si/slo/dediscina/judi-v-mariboru/, 16.5.2020
6 cf. Majcen 1926, 52-53
7 cf. Varl/Tomažič/Radovanovič 1997, 75

Urban and historical development of Maribor

Not much is known about Maribor during the time of Roman Empire and Migration period. It was the arrival of Hungarians to the Panonian land that triggered Maribor's growth in importance. In order to protect the land from the Hungarian invasions, Carinthian leader Bernhard Spanheim built a fort on the the hill overlooking Maribor, known as the Pyramid. This castle later burned down and all that remains today are its foundations.

Maribor became known as a market in 1209 and in 1254 it was first mentioned as a town. The settlement had a German name Marburg, which roughly translates to "castle in the mark." The city walls, including the still standing Judgement Tower in the south-east, were constructed in the 14th century. Later on, the walls were fortified with more defense towers, among others with the Jewish Tower in the south, Tscheligi Tower in the north, and the City Castle in the north-east. With the 16th century construction of two new forts, Water Tower and the former Maribor Venice in the south, the river Drava was included in the defense of the city.[3] The city walls were especially helpful against the Turkish invasions. Between the years 1396 and 1710, Turks invaded Styria more than thirty times.[4]

In the medieval times, a very strong Jewish community started to form in Maribor. They mainly occupied the south-eastern part of the city, which came to be known as the Jewish Quarter. It reached its peak in the 15th century, when about 300 Jews lived in the city. They erected a synagogue, which today still counts as one of the oldest preserved synagogues in Central Europe. However, in 1497 emperor Maximillian I issued a decree on the expulsion of Jews from the Styrian and Carinthian estates, and the Jews had to leave the city. They did not begin to return until the 19th and 20th century.[5]

The 17th century was an especially difficult period for Maribor, marked by poverty, fires and disease. The city caught fire four times and each fire destroyed almost all the buildings. In addition, the plague, which appeared five times, killed a large portion of the population.[6]

Maribor was regressing until the 18th century. The only two established economic activities were milling and the leather industry. River Drava played an important role in the transport of the goods, especially wood, with boats.[7]

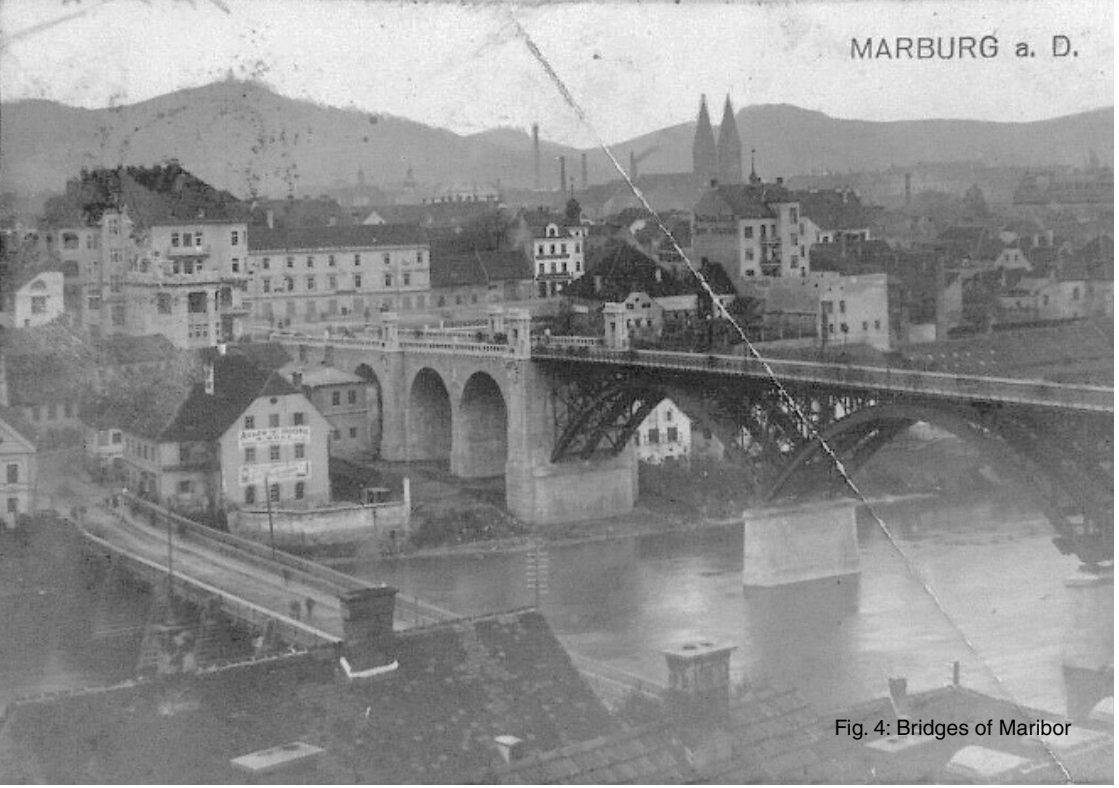


Fig. 4: Bridges of Maribor

Fig. 5: View from Kalvarija

Fig. 6: View of river Drava

Fig. 7: The main train station

8 cf. Varl/Tomažič/Radovanovič 1997, 99-100
9 cf. Varl/Tomažič/Radovanovič 1997, 131-132
10 cf. Varl/Tomažič/Radovanovič 1997, 91-92
11 cf. Varl/Tomažič/Radovanovič 1997, 93

The emergence of the city is closely related to the passage of river Drava. Most of the history of Maribor revolves around the river and its bridges. In the peaceful times the bridge represented a source of income and in the peaceful times it marked danger. Until the end of the 19th century, the wooden, old Drava bridge was the only bridge that connected the two sides of Maribor. A new, modern bridge was finally built in 1913 due to an increase in traffic.[8]

The 19th century was decisive for the development of Maribor. At the beginning of the 19th century, Maribor was still a typical rural town with a medieval town core. In the 1820s, the city doors and the majority of city walls were demolished and defensive trenches filled up, because they didn't play a defensive role anymore and were only inhibiting the development and traffic flow in the city and the suburbs. This linked the city to its suburbs, which gradually became an important component of the city. Simultaneously, the plans to expand the city towards the north were born (towards Piramida and Kalvarija), because that was still the least built area. The city was also expanding towards Melje in the east, where most of the industry was situated. Residential area was also expanding towards west, where traces of former medieval suburbs were present.[9]

The construction of the so called Southern railway Vienna - Maribor - Ljubljana completed in 1846 was the turning point, that caused rapid economic development of Maribor. In the second half of the 19th century, after the completion of the railway, the city began to grow rapidly. For comparison, in the year 1851 only 4.168 people lived in Maribor, by the year 1869 the population increased to 16.006, and by the year 1900 to 31.337 inhabitants.[10]

After the construction of the Southern railway that connected Dunaj and Trieste, it became clear that a better traffic connection is needed between Carinthia and lower Styria. For that reason the Carinthian railway, which linked Maribor to Klagenfurt, was built in 1863. The presence of the railway station in the city caused the focal point of the economic activity to move from the old part of the town to the city suburbs. Previously insignificant street between the Maribor Castle and the new railway station became one of the most important arterial roads in the city after the construction of the Southern railway.[11]

Fig. 8: View of Sparkasse in 1910

Fig. 9: Military parade after World War I

Fig. 10: Partizanska Road circa 1925

Fig. 11: Glavni trg (Main Square)

12 cf. Varl/Tomažič/Radovanovič 1997, 96
13 cf. Varl/Tomažič/Radovanovič 1997, 157
14 cf. Pirkovič-Kocbek 1982, 11

Rapid economic growth resulted in newly built surfaces. In the second half of the 19th century, Maribor started to expand in the area between Partizanska Street, Tomšičeva Street, the main railway station, and the city park, which started to develop in the seventies. The second part of intense construction acitivities took place in the section between Drava, Melje, Partizanska and Svetozarevska Street and in the neighborhood in the north-western part of the city. On the right bank, the town began to spread especially towards Drava, the Southern railway, Metelkova Street and Kurilnica. In the eighties, the city park was joined by Tomšičeva avenue and the parks on today's Maister, Kidrič and Slomšek Square. Railway workshops next to the Carinthian railway caused Studenci area to be associated with the working-class and influenced the growth of surrounding settlements (Radvanje, Nova vas). Up to that point, the only major construction in Maribor was the railway brigde, but it was followed by a bridge connecting Glavni trg (Main Square) to Magdalensko suburbs in 1913.[12]

After the First World War, the German municipal council agreed that Maribor should come under the rule of Austria. General Rudolf Maister rebelled against that along with a group of volunteers, seized military power on the 1st of November and disarmed Schutzwehr (Austrian armed forces) on the 23rd of November, securing Slovenian national border in the north. German municipal council was dismissed in 1919, and in the same year Maribor and most of Slovenian Styria was annexed to Kingdom of Serbs, Croats and Slovenes. With the annexiation of Maribor to Yugoslavia a process of planned Germanization came to an end and Slovenians regained control of the country.[13]

Between the world wars Maribor held a special position. It was politically important, given the newly established border with Austria. It was also economically strong and ahead of other Slovene cities due to its wide range of industry branches. In line with the economic growth, the inflow of labor also increased. Large-scale immigration resulted in disproportionately rapid and rampant growth in suburban settlements, and single-family dwelling houses covered a wider urban area on the right bank of the river.[14]

Fig. 12: Gosposka Street during WW II

Fig. 13: Aftermath of WW II

Fig. 14: City zoning plan by Ljubo Humek

Fig. 15: Residential neighbourhood in Tabor

15 cf. Pirkovič-Kocbek 1982, 25
16 cf. Pirkovič-Kocbek 1982, 60
17 cf. Pirkovič-Kocbek 1982, 25
18 cf. Ivanovič, Nataša: Ljubo Humek, 7. 4. 2014, http://www.mariborart.si si/osebnost/-/article-display/ljubo-humek, 24.5.2020
19 cf. Pirkovič-Kocbek 1982, 33
20 cf. Pirkovič-Kocbek 1982, 40

Maribor was occupied by the Germans in the Second World War. Maribor was the city that the second world war affected the most of all Slovenian cities. Nearly half of the city was demolished and 47% of houses, industry, railway and road network were damaged.[15] Immediately after the war, the focus was on the reconstruction and construction of the industry, transport facilities, and the like. It was only after the industry resumed operation that the first emergency housing for workers was built. Main characteristic of the first post-war period of directed housing construction in Slovenia were standardized apartment buildings, which were mostly uniform two-storey buildings with a schematic floorplan. Settlements Metalna and TAM are examples of compact standardized construction in Maribor.[16]

Rapid economic development resulted in the deagrarisation of the rural areas and urbanization of the city. Thus, without surrounding settlements, Maribor had a population of 65.000 in 1948, and slightly less than 97.000 in 1971.[17]

The 1950s were the turning point, marked by improved housing standard and rationalization of construction process. The central figure was Ljubo Humek, who created the city's zoning plan in 1949. With this plan he suggested solutions to two problems; first one was the question of the Maribor railway junction and the second was the division of the urban area by certain functions, which includes five larger housing units, each with its own local center and a closer connection of industrial areas with the railway.[18] He was responsible for the design of the residential neighborhood along Gosposvetska Street, public squares, green surfaces and the promenade in the city park. Many of his solutions were never realized, however, his plan represents the basis for practical urban measures and lays foundations for the urban system of Maribor.[18]

For the purpose of coordinated and socially-oriented planning, the Institute for Urbanism created the initiative Maribor-Jug (Maribor-South) in 1973. The project included extensive construction of residential buildings on the right bank of Drava with emphasis on elevated housing standard and efficient use of public space. Residential neighborhoods S-23, Nova vas I and Nova vas II in today's quarters of Tabor and Nova vas were all carried out as a part of the project Maribor-South.[20]

Fig. 16: Maribor in 1956

21 cf. Radovanovič/Žiberna 1999, 8

22 cf. Lobnik 1999, 41-47

23 cf. Vesna Martinec: V Mariboru tisoč novih stanovanj v prihodnjih letih, 16.8. 2018, https://www.rtvslo.si/radiomaribor/novice/v-mariboru-tisoc-novih-stanovanj-v-prihodn%20jih-letih/463349, 4.6. 2020

Slovenia declared its independence from the Republic of Yugoslavia on the 25th of June 1991. Soon after, Maribor as a manufactoring city was stricken by economic crisis, due to loss of Yugoslav market and imposed market relations. This was a transition period for Maribor, when the industrial production gradually lost its dominating position and the tertiary sector started to gain importance.[21] As a result, old industrial zones Tezno, Melje and Studenci slowly transformed and underwent some functional changes over the course of time.

In 2004, a new master plan for Maribor was approved, which aimed to unify four parts of the city into one urban structure. Its objective was to prevent the spread of the city, and instead develop the city inwards, by filling in vacant lots and revitalizing degraded areas. It focused on the development of the right bank of Drava by the creation of public squares and introduction of central activities, which before were concentrated on the left bank. Included in the new master plan is the implementation of the green belt, which represents the functional and formal edge of the city.[22]

Quite a few residential neighbourhoods were built in the districts of Studenci, Tabor, Pobrežje and under Pohorje in the past decades. In the last few years, development of Maribor was marked with the construction of shopping malls and supermarkets along the main traffic roads on the right bank of Maribor, for example Europark, Mercator and Qlandia.

Over the last few decades Maribor has successfully transformed from a primarily industrial city into an administrative, cultural, educational centre with a more balanced economy, which had a strong impact on its urban development. The city is continuing to develop with many upocoming investments. Glavni trg (Main Square) in the city centre has just been fully renovated. Over the next few years, 1000 residential units are planned to be built, mainly in Studenci, Pobrežje, under Pohorje and in the city centre.[23] However, much planning is still needed until the city can reach its full potential, especially in the degraded areas, such as Melje, which is in need of a complete revitalization through restructuring and removal of existing activities.

Fig. 17: Construction of Fala power plant

Fig. 18: Factory of artificial abrasives Swaty

Fig. 19: Beer brewery in Tagetthoffstrasse

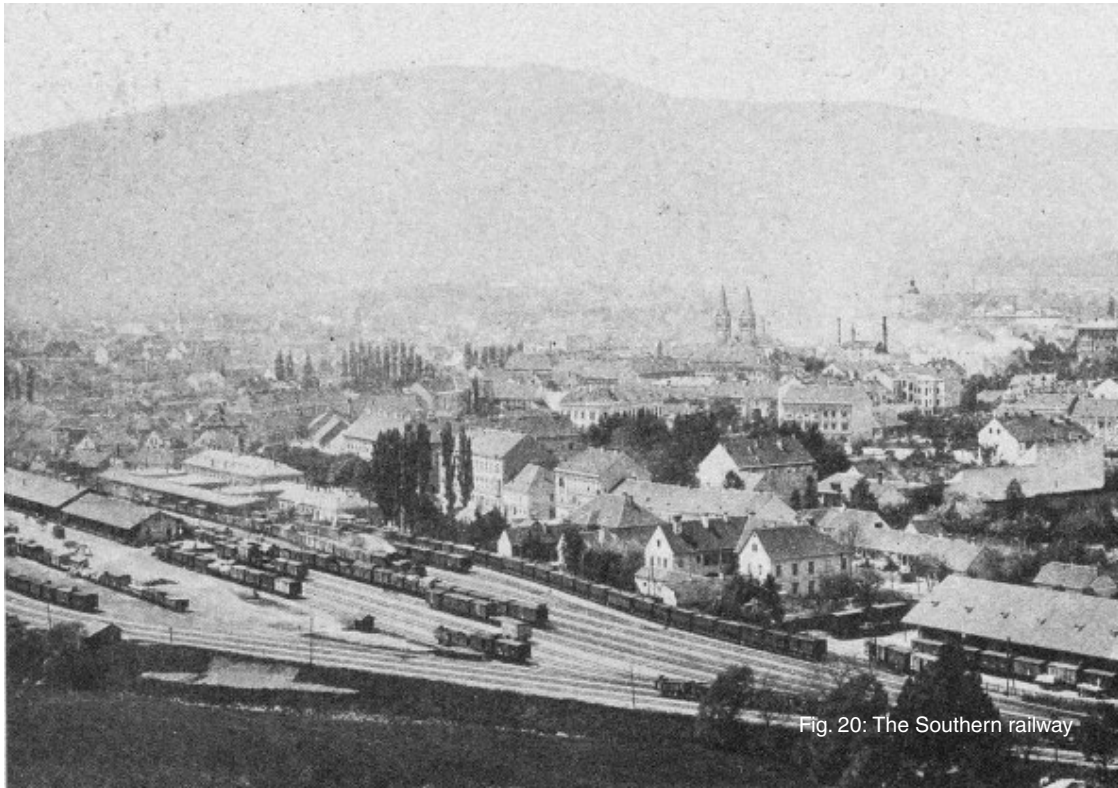


Fig. 20: The Southern railway

Development of industrial production in Maribor

Up to the beginning of the 19th century the main economic activity in Maribor was still trade. However, the construction of the Southern railway in 1846 and the Carinthian railway in 1863 were the turning points, which encouraged transition from trade to industry. It was after their completion that Maribor established itself as the center of industrial activity. Tanneries were built next to river Drava, Tappeiner brewery and a soap manufactoring plant in Melje and Tscheligi brewery on Koroška Road. Two wind mills were also erected. Sausage factory in Melje, brickwork factory in Košaki, and factory of artificial abrasives were built on today's Tržaška Road. In the 19th century, the most important factory in Maribor were Železniške delavnice (railway workshops) that started operating in 1863 and also influenced the development of the city's hinterland. Some public companies emerged: Plinarna (gasworks) in 1870, Mestni vodovod (water distribution system) in 1901 and Mlekarna (dairy industry) in 1907.[24]

After Yugoslavia was formed, Slovenia became the most industrially developed part of the country. It did not hold an inferior position any more, as previously in the Austro-Hungarian Empire, and the country of Yugoslavia represented a big, promising market for Slovenia.

Expansion of the power plant Fala on the river and electrification of the city in 1920 helped modernize industrial production. Good traffic connections, electricity and cheap labor from agrarian hinterland provided favorable conditions for new industries to boom, especially textile, chemical and partly metal industry. The first two factories started operating in 1922, and seven smaller or bigger textile companies soon followed. Capital inflow had grown bigger, and after a sucessful launch, production increased significantly. Industrial production was concentrated in three areas, near the three railway stations: near the Carinthian train station, in Tezno and next to the main train station in Melje and Orešje. The then grown ring of factories in Maribor clearly indicates the city's boundaries at the time. Although control came back into the hands of Slovenians after the collapse of the Austro-Hungarian Empire, the industrial magnates were still foreign - mostly German and Jewish, and a significant share belonged to the Czech.[25]

24 cf. Varl/Tomažič/Radovanovič 1997, 96
25 cf. Pirkovič-Kocbek 1982, 11

Fig. 21: TAM

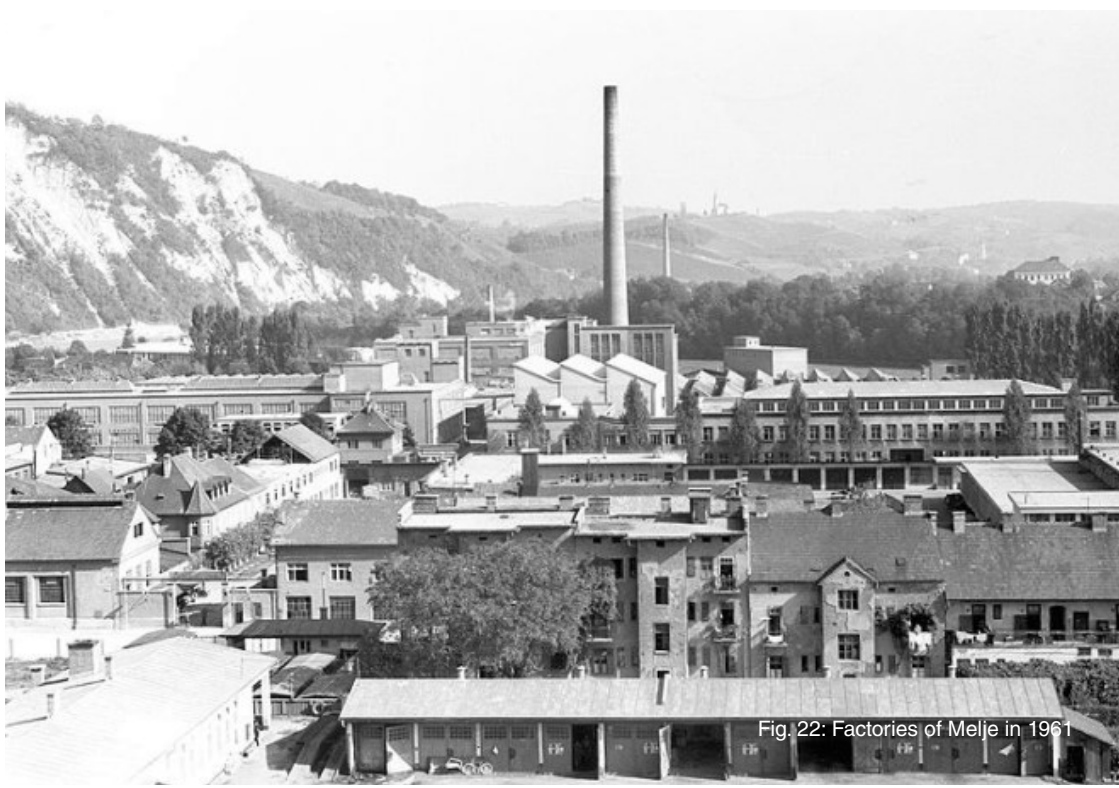


Fig. 22: Factories of Melje in 1961

VIR-PAM

Fig. 23: Metalna

Fig. 24: Intes

26 cf. Radovanovič/Žiberna 1999, 24
27 cf. Pirkovič-Kocbek 1982, 25
28 cf. Radovanovič/Žiberna 1999, 24
29 cf. Bole 2008, 109

During occupation of Maribor in the second world war, Germans built an airplane motor factory in the Tezno forest and began the construction of a hydro-electric station above Mariborski otok (Maribor Island). It was the military manufactoring and the optimal location for the transport that caused Maribor to be bombed by the allies 24 times.[26]

Liberation created a new foundation for the economy and two years after the end of war, the first five year development plan was accepted, the aim of which was restoration, industrialization and electrification of the economy. The socialist society assigned Maribor the role of the great centre of Slovenian metal and manufacturing industry. Power plants Dravograd and Mariborski otok were expanded. This was followed by the construction of other Drava power plants, the last of which was Zlatoličje power plant, which started operating in 1968.[27]

All larger firms became public property after the war. Maribor's industrial giants grew on the ruins of the former plants.Textile industry united into Mariborska tekstilna tovarna (Maribor Textile Factory), Pik and Svila. Railway vehicle factory Boris Kidrič was the successor of the former railway workshops and Tovarna avtomobilov Maribor (Maribor Car Factory) came from the former aeroplane motor factory. Metalna, Primat, Mariborska livarna (Maribor Foundry) and several others emerged in the metal processing industry. Some companies, such as Hidromontaža and Elektrovina, were newly established.[28]

After Slovenia declared its independence from Yugoslavia in 1991, the industrial development of Maribor came to an abrupt end. As and old industrial centre, Maribor was greatly stricken by the loss of Yugoslav market. Deindustrialization affected Maribor in a very negative way. Many people lost their jobs and most industry production had to shut down, among others textile industry (MTT, Predilnica in tkalnica, Merinka, PIK, Vezenina), metal processing industry (TAM, Metalna, Hidromontaža), electro-mechanical industry (Elektrokovina, TI-PO) and construction companies (Gradis, Stavbar, Konstruktor). Most of these industrial plants went bankrupt, with some of them transforming into smaller plants with fewer employees and less value. However, after 1995, the city entered the positive phase of deindustrialization.[29]


INDUSTRIAL ZONE
MELJE
INDUSTRIAL ZONE
STUDENCI
INDUSTRIAL ZONE
TEZNO

30 cf. Bole 2008, 109
31 cf. Lobnik 1999, 41-47

The number of smaller companies increased significantly, as did the employment in the tertiary sector. How extreme the economic transition in Maribor was, can be noted from the fact that between 1991 and 1996, the share of industry in the economic revenue decreased from 50% to 38%.[30]

With the implementation of the new master plan of Maribor in 2004, manufacturing activities were to remain in the already existing industrial zones. They established industrial zones with specific location advantages, which were to be protected against changes in use, since there were no other appropriate sites with equal potential for industrial production. For the industries that were not as spatially demanding, locations near the highway junction and airpoirt were to become of importance. They proposed restructuring and relocation of the industrial sites near the railway, especially ones closest to the city centre, as they had lost their comparative advantage.[31]

Transition from industrial to post-industrial era and sudden bankrupcy of almost all larger industrial companies due to political and economic changes in the nineties, had a strong impact on the development of the old industrial zones of Maribor. As most of the industrial production shut down, industrial zones needed to adapt and change their function. Over the course of time they transformed from strictly industrial areas to increasingly mixed-use areas, where smaller manufacturing plants, business and service-oriented activities intertwine. Nonethless, they are still party degraded and in need of restructuring.

Today, Maribor still has a number of still running industrial plants, such as Henkel, Weiler Abrasives, Primat, and a recently opened car manufacturing plant Magna Steyr. However, the golden days of industrial production in Maribor are long gone and the town is still in the process of transition.

Fig. 25: Maribor Textile Factory

Textile industry in Maribor

After the first world war and liberation from the Austro-Hungarian Empire, Slovenia became the most industrially strong country in Yugoslavia. High level of customs protection created favourable conditions for Slovenia, which possesed 37% of all textile production, to develop into the capital of the textile production. In Slovenia, cotton textile production was flourishing, while the wool textile production was situated in Serbia. In the 1920s and 1930s, Maribor and Kranj became the leading cities of the Yugoslav textile industry. Especially Maribor developed in 15 years to become the biggest capital of the textile industry in Yugoslavia; out of 21 big textile factories in Slovenia, 15 were located in Maribor in 1939.

Between the years 1919 and 1923, nine textile factories began operating. Until 1930, seventen more opened, and by the year 1936, nine more. No new textile factories were opened after this year, mostly due to the threat of the upcoming Second World War.

Textile production didn't take place in Maribor until after the First World War. Main factors that encouraged surprisingly rapid opening and development of the textile factories in Maribor, were expansion of the hydroelectric powerplant Fala in 1918, favourable prices of building surfaces, strong railway connections, sufficient cheap workforce as well as adequate water resources.

Decisive for the formation of the textile factories in Maribor were inititators or factory owners Josip Hutter, Bedrich Schinsky, Ervin Zelenka, Marko Rosner and others. Between the two world wars, the city was the capital of the textile production with 15 bigger textile factories with around 7000 employees. In addition to those, a few medium sized textile companies and some smaller plants were also established. This is how Maribor came to be known as Manchester of Yugoslavia.[32]

32 cf. Matjašič 2016, 2

Fig. 26: Maribor Textile Factory

33 cf. Matjašič 2016, 15
34 cf. Matjašič 2016, 16
35 cf. Matjašič 2016, 18

Maribor Textile Factory

Melje was the centre of textile industry, and by the end of the Second World War, five large textile factories were located there. On the 1st of July 1946 once independant factories Mark Rosner Roteks, Jugotekstil and Jugosvila joined into Mariborske bombažne tkalnice (Maribor cotton weaving mills) and factories Hutter in drug and Mariborska tekstilna tvornica - MAVA (Maribor Textile Factory) into Mariborska tekstilna tovarna (Maribor Textile Factory). In the beginnning of 1949 factories Mariborske bombažne tkalnice and Mariborska tekstilna tovarna merged into one company MTT - Mariborska tekstilna tovarna, Melje. Six weaving mills, three spinning mills and three processing plants stood on an area of 10.000 m^2. In 1952 they started using artificial yarn in addition to cotton, which accounted for one third of production in 1955. With 3800 employees, MTT was Yugoslavia's largest textile factory in the mid-fifties, renowned for its quality cotton fabrics. It was among the first textile factories in Yugoslavia to begin exporting in 1951. The spinning mills had undergone reconstruction and modernization until 1960 because of insufficient spinning capacity.[33]

Formerly autonomous factories MTT Melje, Predilnica in tkalnica Maribor, Merinka, Industrija volnenih tkanin Maribor and Ruška tekstilna industrija joined under Kombinat MTT Maribor on the 1st of January 1963. A huge company with 6500 workers emerged. Its spinning capacities were amongst the biggest in Europe. Separately located autonomous factories merged at the time of their modernization. Managment of Kombinat MTT was strictly centralized, which resulted in the decline of bussiness initiative in formerly independant factories. After the merger, Kombinat MTT was not economically successful. Betweeen 1966 and 1968 it operated at a loss and a complete termination of textile production in Maribor threatened. In 1969, the new managment of Kombinat MTT introduced new organization scheme, which restored autonomy of the former factories. Kombinat MTT clearly defined the production plan for each individual factory. MTT Melje was designated for the production of cotton fabrics.[34]

Modernization of production process continued during 1970s and 1980s. Kombinat came to be one of the most successful in the history of Maribor textile factories. In October 1972 four Basic Organizations of Associated Labor (TOZD) were established in place of former plants; TOZD Melje, TOZD Tabor, TOZD Merinka and TOZD Sukancarna and the former Kombinat MTT was reformed as Organisation of Associated Labour (OZD MTT).[35]

Fig. 27: Maribor Textile Factory inside

36 cf. Matjašič 2016, 18-19

37 cf. Mariborska tekstilne tovarna MTT, http://industrijskapespot.si/mariborska-tekstilna-tovarna---opis.html, 24.5.2020

38 cf. Nives Špeh: Mariborska tekstilna industrija skozi 'prisilke' in stečaje, 25.2.2002, https://www.finance.si/18953?cctest&, 24.5.2020

39 cf. Barbara Bradač: Umetnostna galerija Maribor se vidi v nekdanjem MTT-ju, 30.4.2019, https://www.vecerkoroska.com/umetnostna-galerija-maribor-se-vidi-v-nekdanjem-mtt-ju-10002024, 24.5.2020

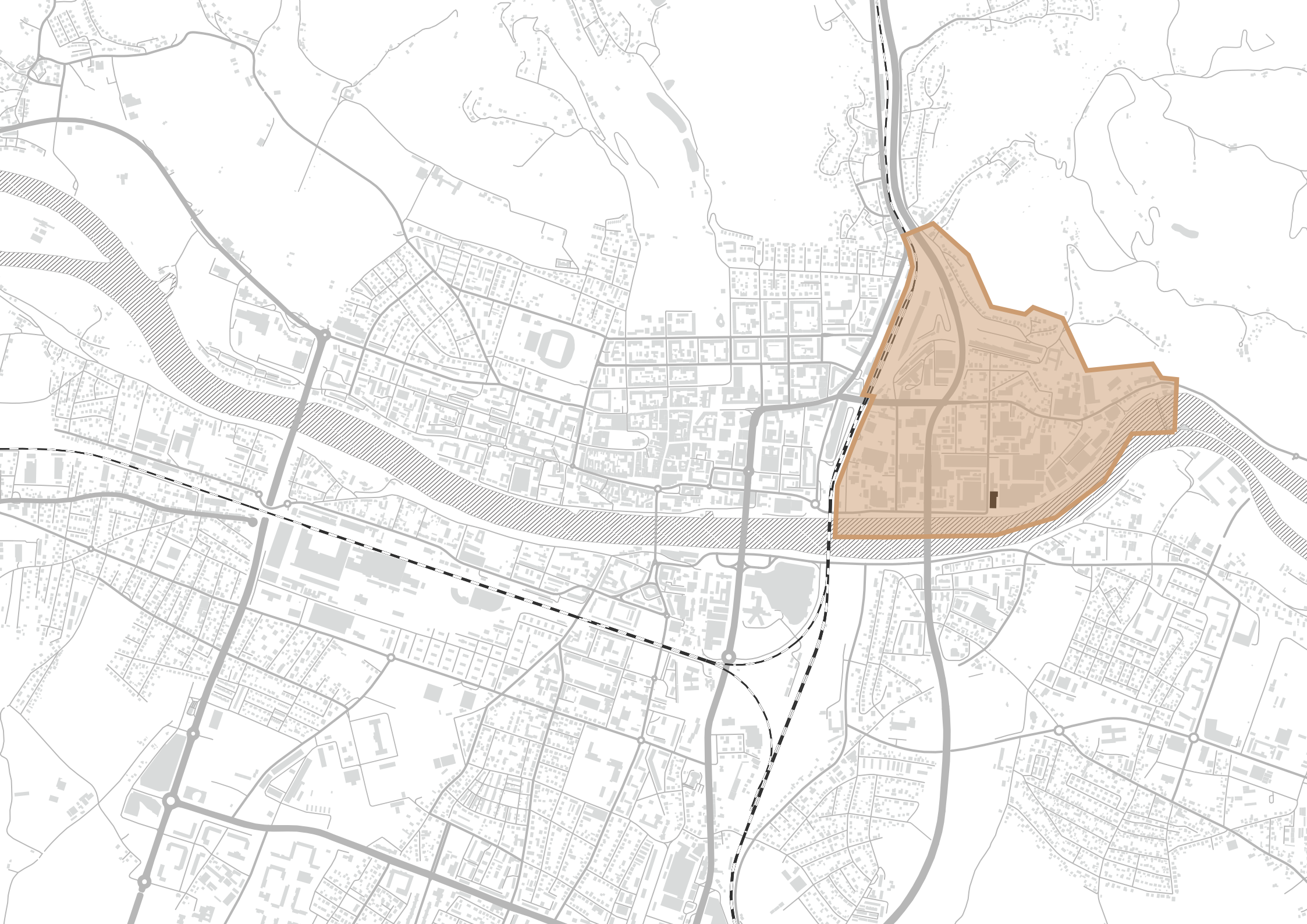
At the beginning of 1976, a new business and administrative arrangement was introduced. SOZD MTT (Composite Organisation of Associated Labour MTT) was founded and former TOZD organisations now became DO organisations (Work Organisations); DO Melje, DO Tabor, DO Merinka, DO Sukancarna and DO Teksta. DO Melje was the largest of all the former plants and accounted for 55 % of the SOZD MTT export. In the mid-1980s, DO Melje incorporated 55.120 spinning spindles, 936 looms, five knitting machines, and a processing plant with the capacity of 28 million meters of fabric. They were able to manufacture 650.000 items of bed linen per year. Melje textile factory featured two spinning mills, three weaving mills and a processing mill.[36]

In 1990, MTT was split into five independent factories: MTT Tovarna tkanin Melje (MTT Factory of Fabric Melje), Merinka, Tabor, Tovarna sukanca in pozamenterije (Factory of Sewing Thread and Fittings) and Tovarna volnenih izdelkov Majšperk (Factory of Woolen Products Majšperk).[37]

Following Slovenia's independence from Yugoslavia in 1991, most of the industrial production started to decline, and many large industrial companies went bankrupt. Textile industry was no exception. MTT had undergone many changes and was last known as MTT Tekstil, which formed in 2000.[38] The company never came close to the success of its predecessor and the former giant of textile industry went bankrupt in 2014.

Today, the area of the former Maribor textile factory, which encompasses 19 plots and 14 buildings, stands abandoned. It has been assigned the status of cultural heritage, however it is not protected against demolition. It has been on auction ever since, but no buyer has yet been found. Umetnostna galerija Maribor (Maribor Art Gallery) has considered buying the property, however no decision has yet been made.[39]

Choosing the appropriate use for the site will be of great significance not only for the future of the former industrial complex, but the entire area of Melje, as it has the potential to influence and trigger the development of the entire district. At the same time, it is essential to preserve its remarkable architectural qualities and uphold its historical importance.



40 cf. Radovanovič 2015, 31
41 cf. Radovanovič 2015, 31

Industrial zone Melje

Melje is a former industrial area located on the left bank of river Drava, to the east of the main railway station. It is the oldest of the industrial zones in Maribor and the one closest to the city centre. In the past, Melje was mentioned as a village, but it joined Maribor in 1850. After the division of the city into districts in 1876, Melje merged with Graško predmestje (Graško suburbs) into one district.[40] Today, Melje is a part of the city quarter Maribor Center.

The most important factors for the development of the industry in the area were close proximity of the Southern railway and location next to the river Drava. After the construction of the railway in 1846, Maribor started to develop economically and many industrial plants were built. Melje soon became the centre of the rapidly developing industry of Maribor. Several steam mills, a soap manufactoring plant (today's Henkel), Gerke's coffee substitutes factory and Nasko tannery were erected in the second half of the 19th century. The city gasworks started operating in 1870 on Plinarniška Street, the street running parallel to the railway embankment. Close to it was a slaughterhouse, opened in 1902, where the meat processing plant Košaki still stands today. In addition to industrial buildings, Melje is also home to the former barracks. The barracks, erected between 1879-1984 on the site of the former Kirchner mill, are of immense historical importance.[41] Relatively few residential buildings were built in Melje. The 20th century Melje was marked by the textile industry. Mariborska tekstilna tovarna (Maribor Textile Factory), which had its beginnings in 1920s, was one of the largest textile factories in Yugoslavia, until the independence of Slovenia in 1991, when the textile industry in Melje came to an abrupt end.

The area is disconnected from the city centre by the railway tracks, which run along the west side of the district. An additional barrier emerged with the construction of the expressway that split the district into two parts.

Today, Melje is still characterized by the industry. The four largest industrial companies are foundry Mariborska livarna, chemical industry Henkel, metal parts factory Primat and meat processing plant Košaki. However, the area does not have a strictly industrial image anymore. With the addition of shopping centre, supermarket and more service-oriented activities, Melje is becoming a friendlier place. Neverthless, much planning and a process of revitalization is still needed, until industrial zone Melje becomes a lively area with a diverse mix of functions.

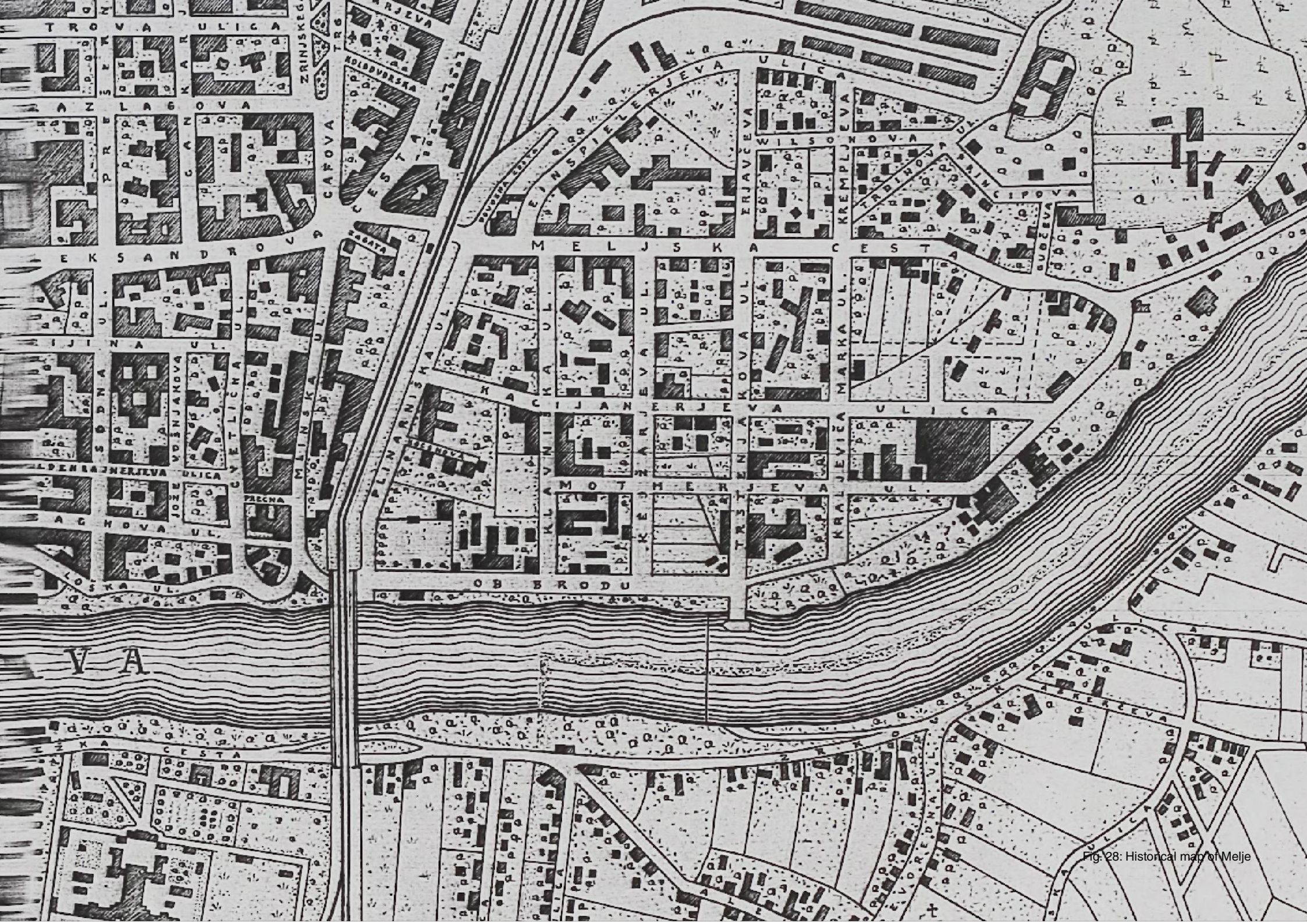


Fig. 28: Historical map of Melje

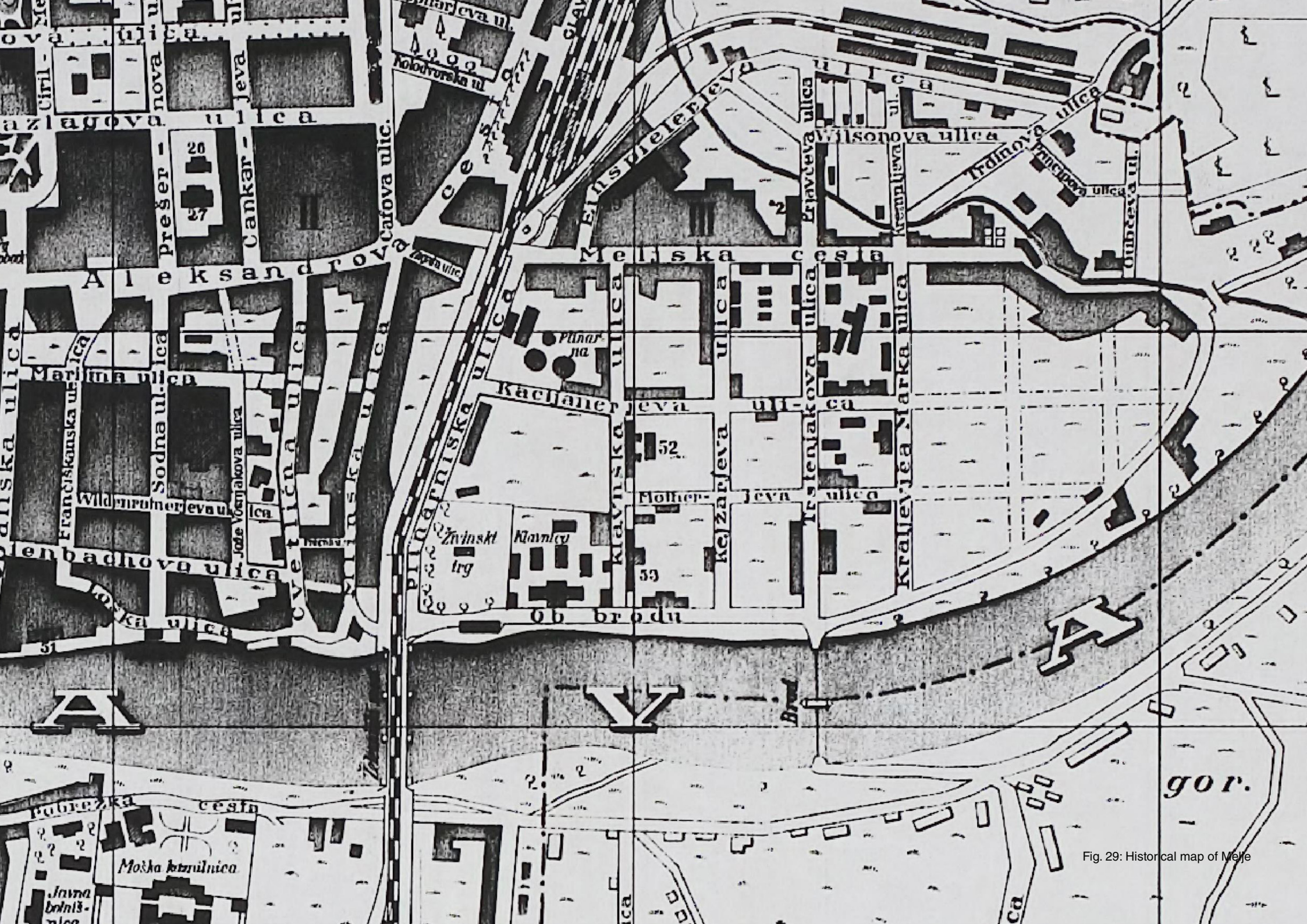
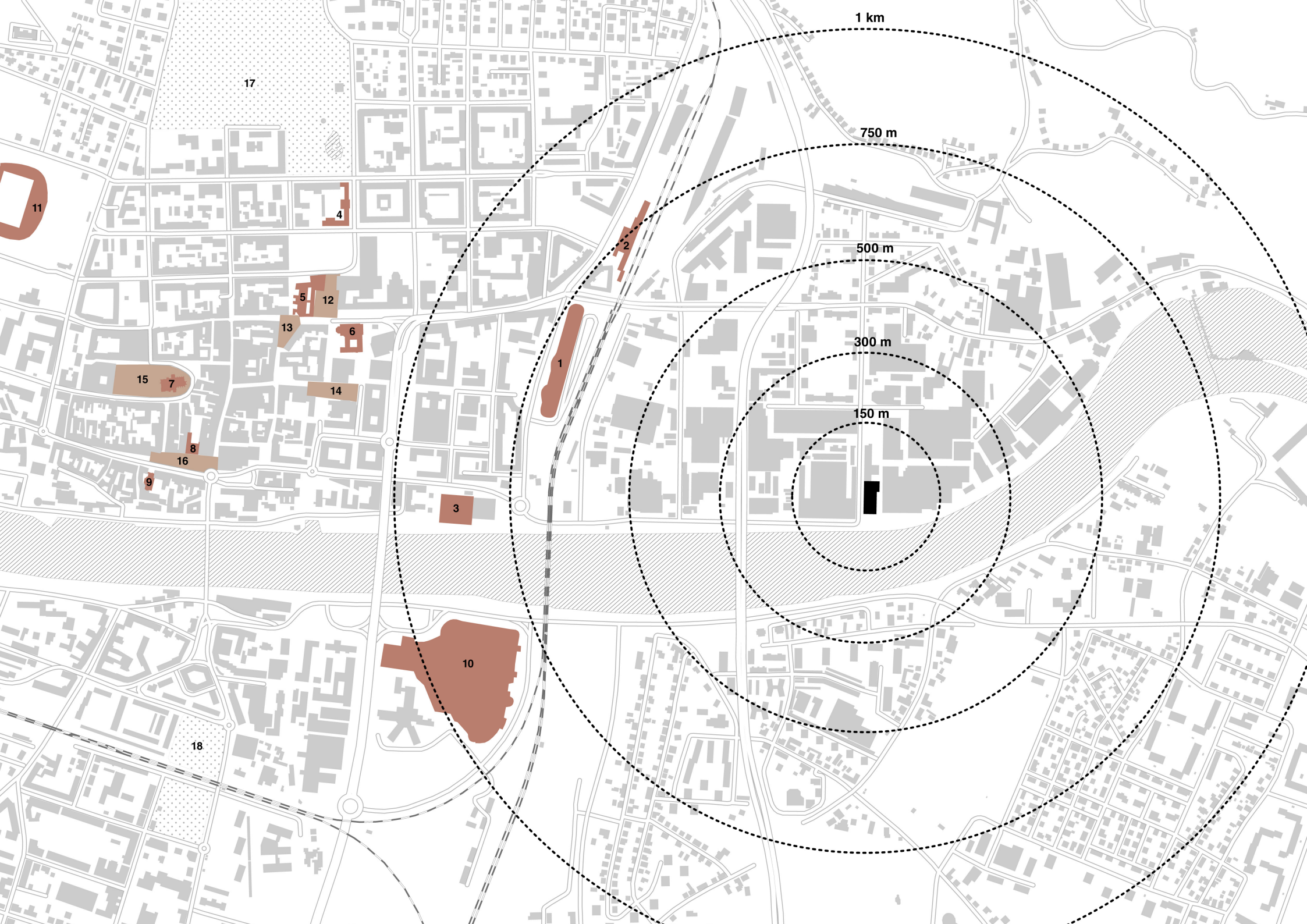


Fig. 29: Historical map of Melje

2 I urban analysis

distances
traffic connections
traffic connections in melje
cycle routes
distribution of uses
inventory of buildings
strengths
weaknesses
opportunities and threats


1 km
750 m
500 m
300 m
150 m
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

important buildings

1 railway station

2 main bus station

3 cinema

4 City Hall

5 Maribor Castle

6 Franciscan Church

7 Maribor Cathedral

8 Old Town Hall

9 Alyosius Church

10 Europark

11 football stadium

public squares

12 Trg svobode

13 Grajski trg

14 Trg Leona Štukelja

15 Slomškov trg

16 Glavni trg

public parks

17 city park

18 Magdalenski parK

Distances

My area of intervention is located east of the old town centre, to the left of the railway. There are no public squares or public parks in the close proximity. The main railway station and the main bus station are located within 750 m radius and can both be reached by foot in less than 15 minutes. The cinema Maribox can also be reached in the approximately same time.

Trg Leona Štuklja (Leon Štukelj Square) is the public square that is closest to Melje, and within 18 minutes of walking distance. This large square is the newest public square in Maribor and is often used as a venue for concerts and events. Quite close is the Franciscan Church, built in Neo-Romanesque style. North of Leon Štukelj Square is Trg Svobode (Liberty Square) with the bronze National Liberation Monument in the centre. One of the biggest wine cellars in Europe, Vinag wine cellars are located beneath the square.

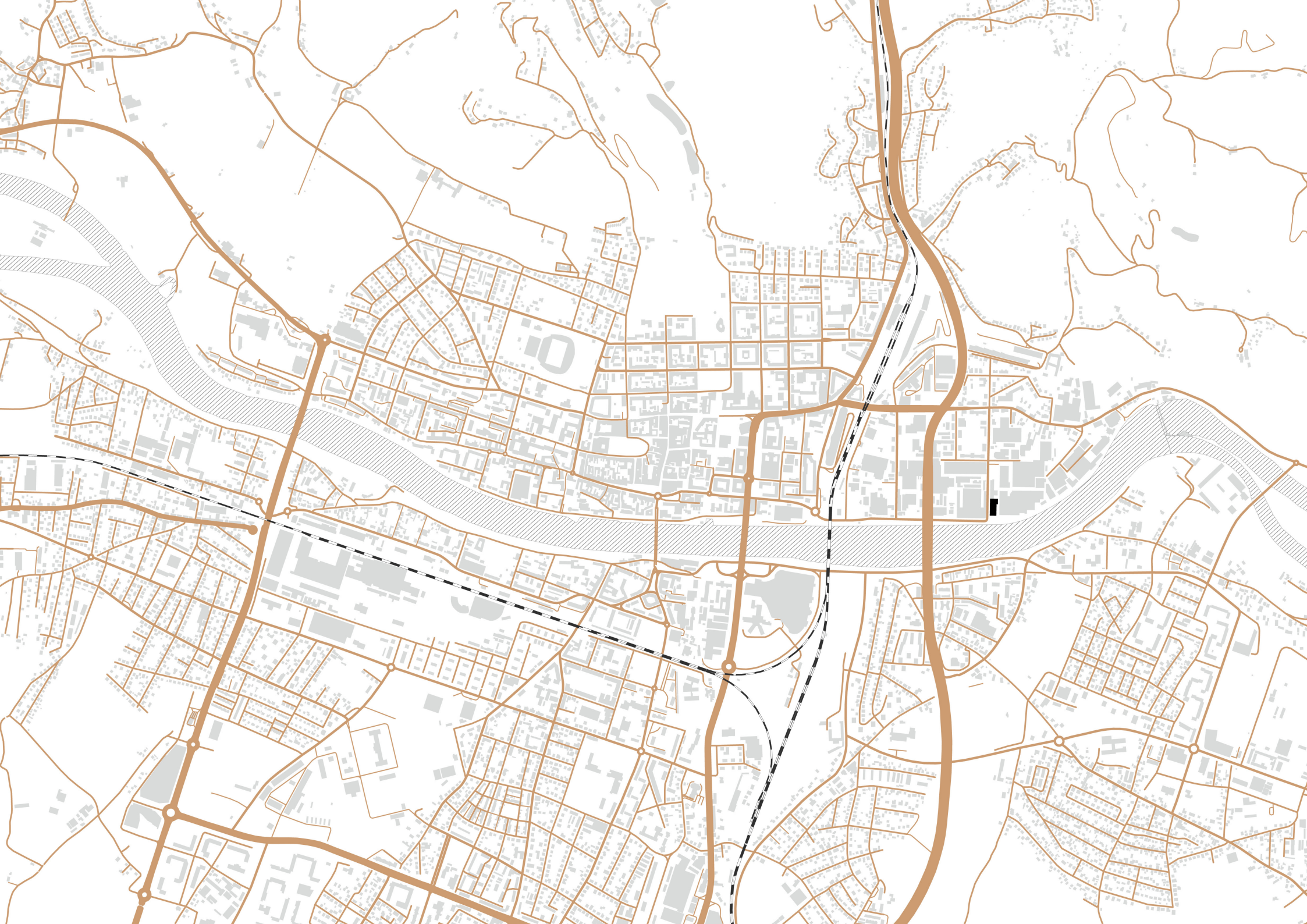
Next to the Liberty Square is Grajski trg (Castle Square) with the Maribor Castle. The castle was built in the 15th century, and had seen many reconstructions and expansions over the years, that is why it features Gothic and Baroque elements.[42] Today, the building is home to the Regional Museum of Maribor. A bit further up north is the new City Hall. Less than a minute away from the City Hall is the Maribor City Park, a large public park.

One of the oldest public squares in Maribor is Slomškov trg (Slomšek Square), named after bishop Anton Slomšek. It can be reached within 20 minutes of walk. The main attractions on the square are Stolnica (Maribor Cathedral), which dates back to 12th century, and the University.

South of Slomškov trg, Glavni trg (Main Square) is located. Plague Memorial, a monument erected in memory of the victims of the plague, stands in the centre of the square. The Old Town Hall, a Renaissance building dating back to 1515, is also situated on Glavni trg.[43] Aloysius Church, a beatiful Baroque church is located across the street from the square. On the right bank of Drava, there is another public park. So called Magdalenski park, a smaller, transitional park can be reached within 25 minutes of walk.

42 cf. Radovanovič/Žiberna 1999, 45

43 cf. Radovanovič/Žiberna 1999, 62



railway

main roads

secondary roads

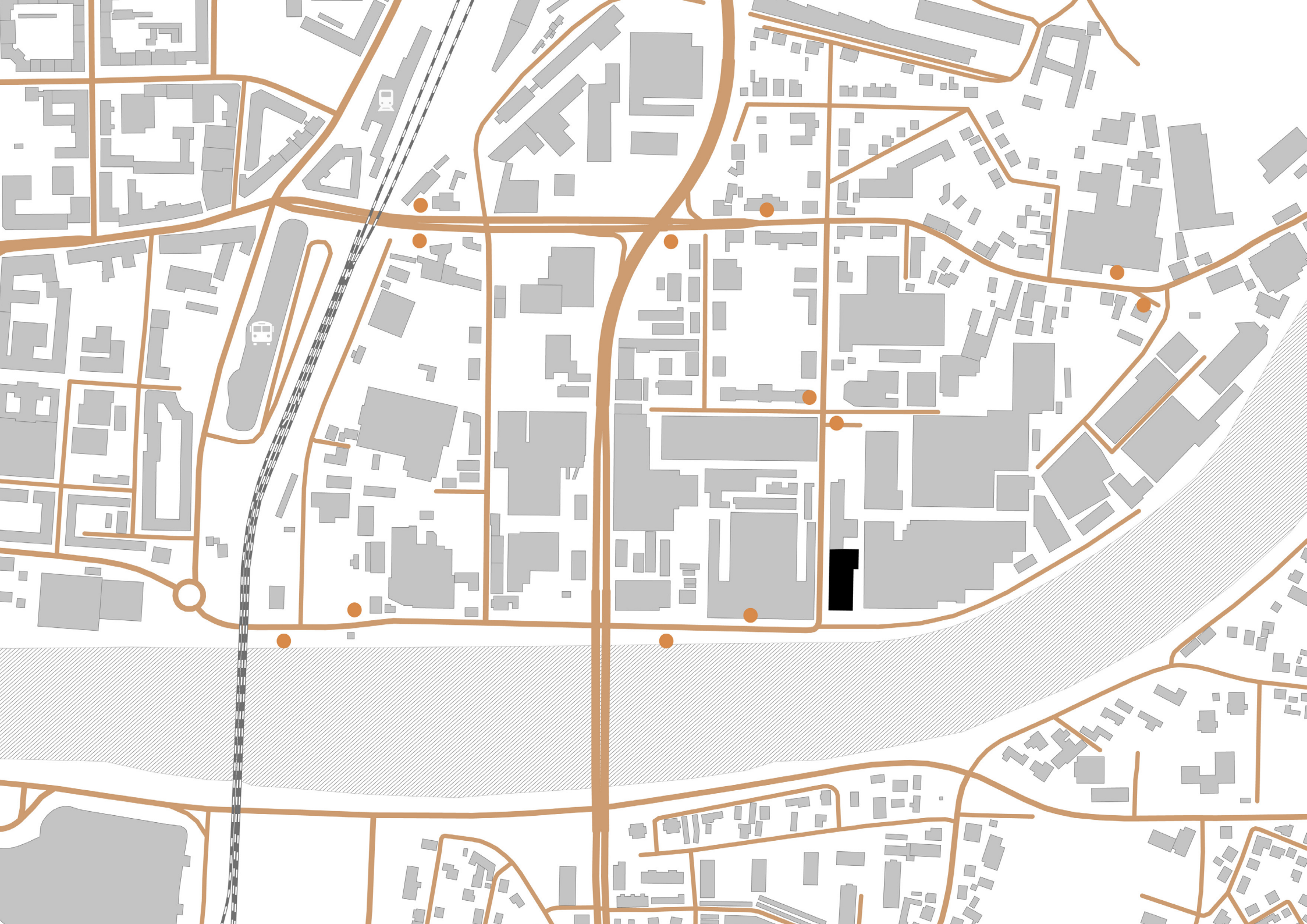
Traffic connections

The main traffic connection is expressway H2 that runs through the city in the north-south direction. It is a wide four-lane street. The expressway joins to the E59 European route, which connects Vienna to Zagreb, and E57, which leads to Ljubljana.

There are two railway tracks leading through the center of Maribor. The so called Southern railway, which connects Vienna to Trieste, runs through Maribor in the north-south direction. However, the railway has several branches through which other parts of Europe are accessible. The second one is the so called Carinthian railway, which runs parallel to river Drava and connects Maribor to Dravograd and further to Klagenfurt.

The old town is bounded by Gregorčičeva Street in the north, Strossmayerjeva Street in the west, Pristan/Vojašniška Street/Usnjarska Street in the south and Titova Road in the east. Most parts of the old town core are pedestrian only. The most important connection is the street that runs through the southern part of the old town parallel to river Drava and passes through Glavni trg (Main Square). It then joins with Koroška Road, which connects Styria to Carinthia. However, Glavni trg has recently been made pedestrian-only and is closed to public traffic.

The right and left bank of Maribor are connected with four bridges. From west to east; Koroški most (Carinthian Bridge), Stari most (Old Bridge), Titov most (Tito Bridge) and the two-level bridge carrying the expressway.



railway

main roads

secondary roads

bus stops

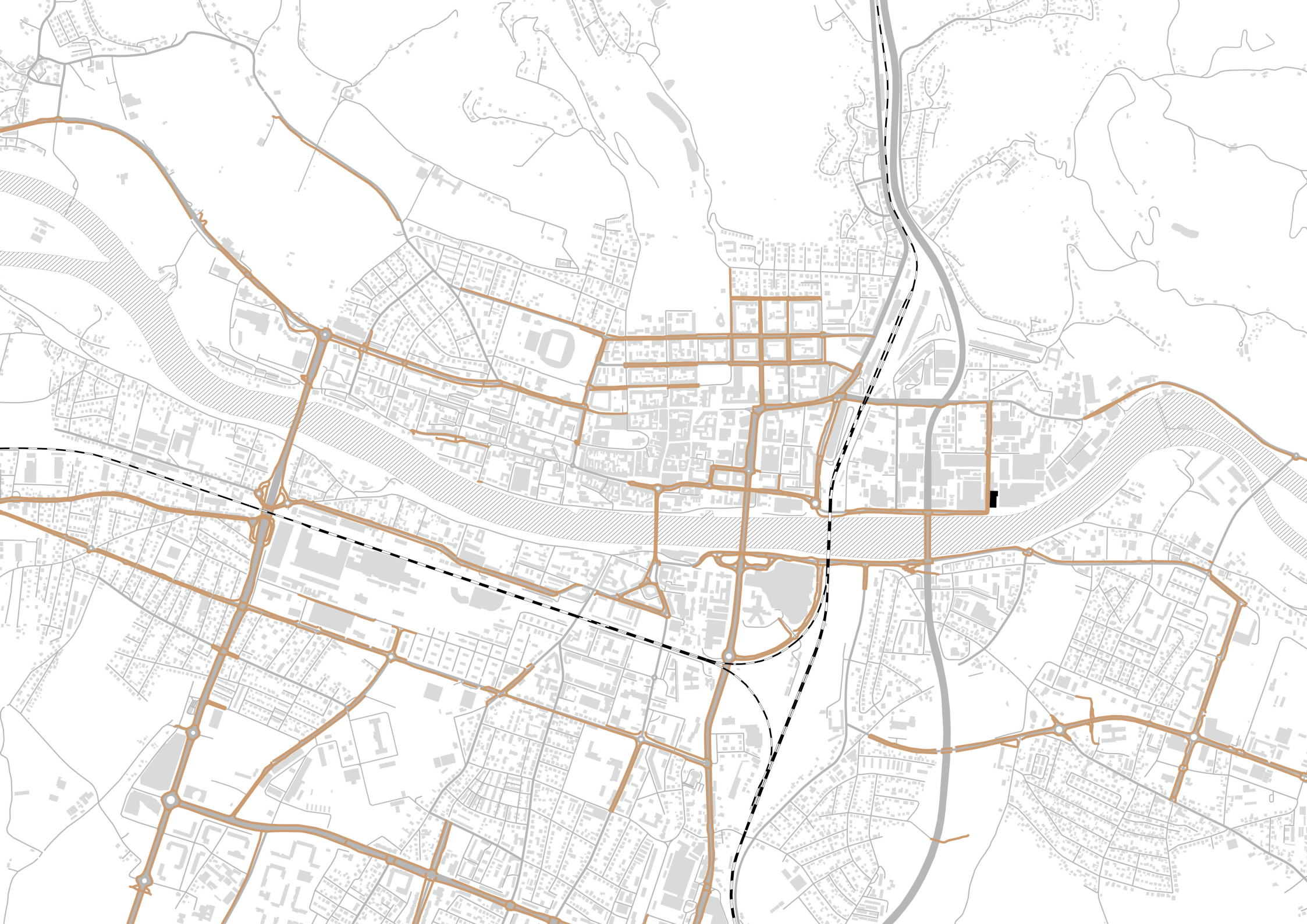
Traffic connections in Melje

My area of intervention is enclosed by Meljska Road in the north, a railway in the west, street Oreško nabrežje in the south and on the east it includes the area to the right of Kraljeviča Marka Street.

Meljska Road is a highly frequented road that leads to the city centre in the west and to Malecnik in the east. Oreško nabrežje runs parallel to river Drava and leads to the southern part of the old town core in the west. In the east it ends with the driveway for the former Textile Factory. Kraljeviča Marka Street in the east links Oreško nabrežje to Meljska Road. Industry had an impact on the street system in Melje. It disrupted the traffic flow mainly in the east-west direction. For example, Street heroja Šaranovica that is still visible in the old plans from early 20th century was removed. Because of that, the area appears inaccessible and closed off.

The main barrier in Melje is the H2 expressway. It divides the area into two parts. The expressway is raised from the ground to allow for the traffic to run underneath in east-west direction. It is accessible from Meljska Road on the north. An additional barrier is the railway that runs parallel to the expressway and separates Melje from the old town centre.

The area is linked to the right bank of Drava via a two-level bridge. The area is also well connected to the Maribor bus network. Bus stops are placed every few hundred meters. However, the bus connections are not very frequent.



railway

main roads

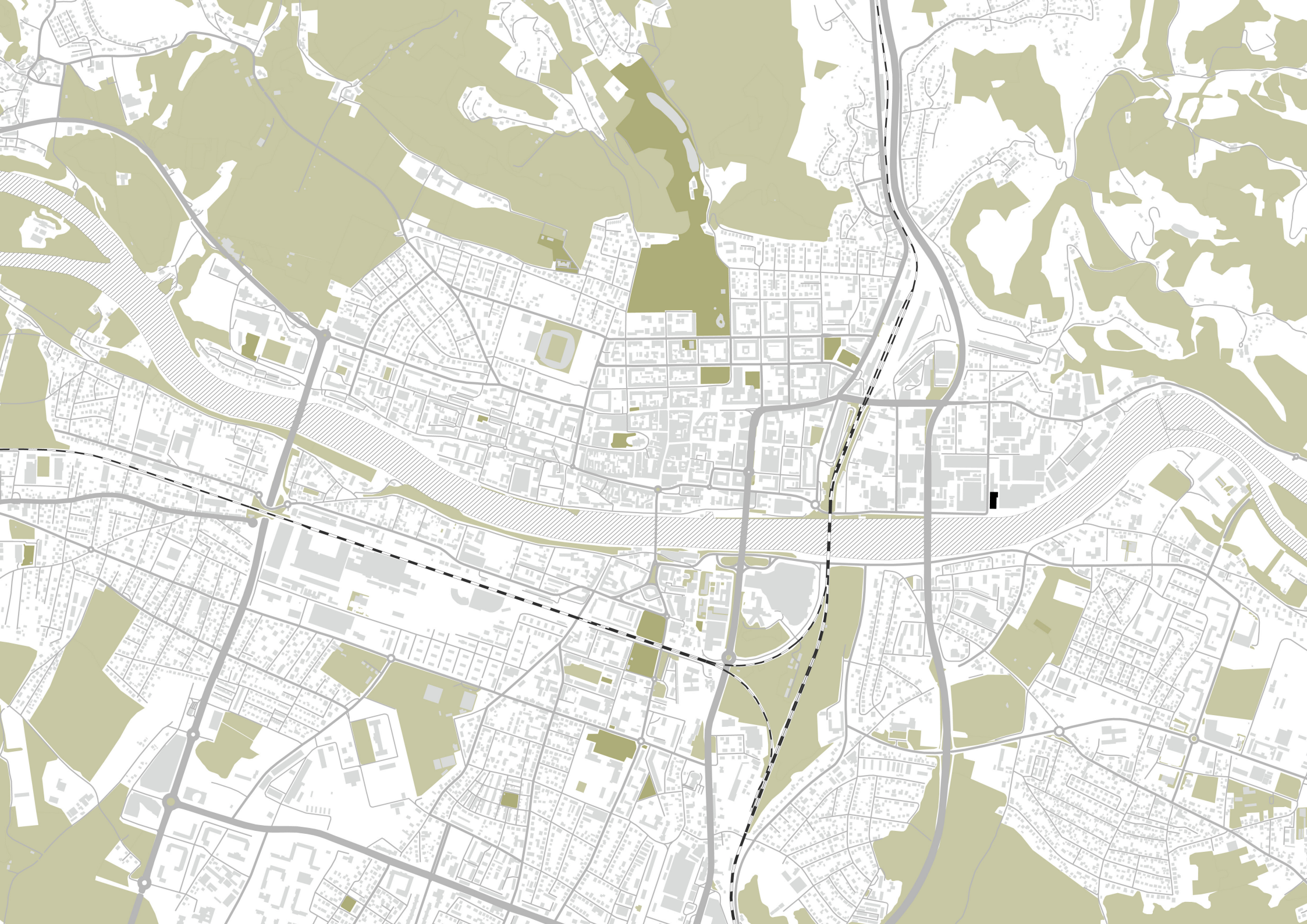
secondary roads

cycle routes

Cycle routes

Maribor has a good network of established cycle routes. Cycle routes along the streets are marked with red colour. The old town core is strictly pedestrian, so the cycle routes are not specifically marked, because it is accessible for cyclists everywhere.

Along the river Drava, there is a pedestrian path that also serves as a cycle route, however, a separate cycle route is established only in some sections. In my area of intervention in Melje, there are cycle routes along the main streets that surround the area. However, since the district is still mostly industrial, there are no cycle routes going directly through the area, because it is closed off for pedestrians and cyclists.



Green areas

public parks

natural green areas

There are no clearly defined grees spaces in the area of my intervention, because it is a predominantly industrial site. The only green area is the embankment of river Drava but it needs to be designed better with implementation of trees, benches and more clearly defined walking paths and cycle routes.

Maribor City Park, the main public park, is around 1 km away from my area of intevention. It is located north of the city centre and encompasses an area of around 5 ha. The main urban axis in the park is a wide promenade, designed by Ljubo Humek. It leads through the park in the north-south direction, visually connecting the city centre in the south with the Three Ponds in the north. The park has a rich variety of trees, numerous benches, sculptures, fountains and a large playground. It is also the home to Aquarium - Terrarium. A small pavillion, where concerts often take place, is located at the eastern entrance to the park.

The park extends further to Piramida (Pyramid Hill) and Kalvarija in the north. This is where the urban green area transitions into a more wild, less urban green area. While the southern slopes of Kalvarija and Piramida are covered with vineyards, the remaining areas are predominantely forest, partly meadow, streams and ponds. We are talking about the coexistence of three landscape elements.[44]

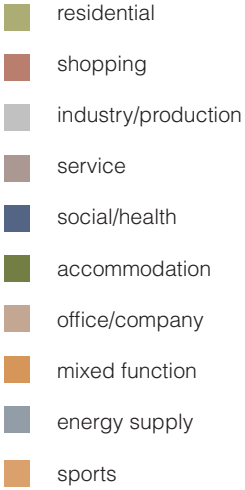
The other closest public park, a much smaller Magdalenski park, is located on the right side of river Drava. It is divided into two parts by the railway. Today it is more of a transitional park, with several benches for rest, trees that offer shade, and a small playground. The other smaller parks are those adjacent to public squares, such as the park on Maistrov trg (Maister Square), the park on Slomškov trg (Slomšek Square) and the park on Trg Borisa Kidriča (Boris Kidrič Square), which is the closest to Melje. It extends across the street from the main railway station and is more of a transitional park with a small playground for the nearby residential areas.

Green recreational area closest to Melje is Meljski hrib (Melje Hill), which is around 1 km to the east. It is covered with vineyards and has a tourist farm on the top. It also offers various sports activities, for example horse riding.

44 Zeleni sistemi (parki, drevoredi), http://www.maribor.si/podrocje.aspx?id=245, 24. 5. 2020


Primat
metal industry
Henkel
beauty/chemical
industry
Košaki
meat industry
Mariborska
livarna
foundry
49

Distribution of uses



Area is characterized by present and past industry. The four largest industrial companies are Henkel (chemical industry), Primat (metal equipment factory), Košaki (meat industry) and Mariborska livarna (foundry). While Henkel, Primat and Košaki are still running successfully, foundry Mariborska Livarna has been on the verge of bankrupcy for years.

Some companies of the energy industry; Plinarna Maribor (gas supply) and Elektro Maribor (electricity supply) and a garbage deposit are also located in the area. Some industrial buildings stand abandoned and some are nowadays used for storage. The largest complex of abandoned industrial buildings, former Maribor Texile Factory, is situated in the east side of the district. One of them is also the former Textile Institute.

There are only a few residential buildings, located in the northern part of the district. However, the area to the north of Meljska Street is dedicated predominantly to residential uses.

The only shops in the area are shopping center Jager, supermarket Lidl, and bed retailer Dormeo. There are no restaurants or bars, only two cafés, located in the previously mentioned shopping center and supermarket.

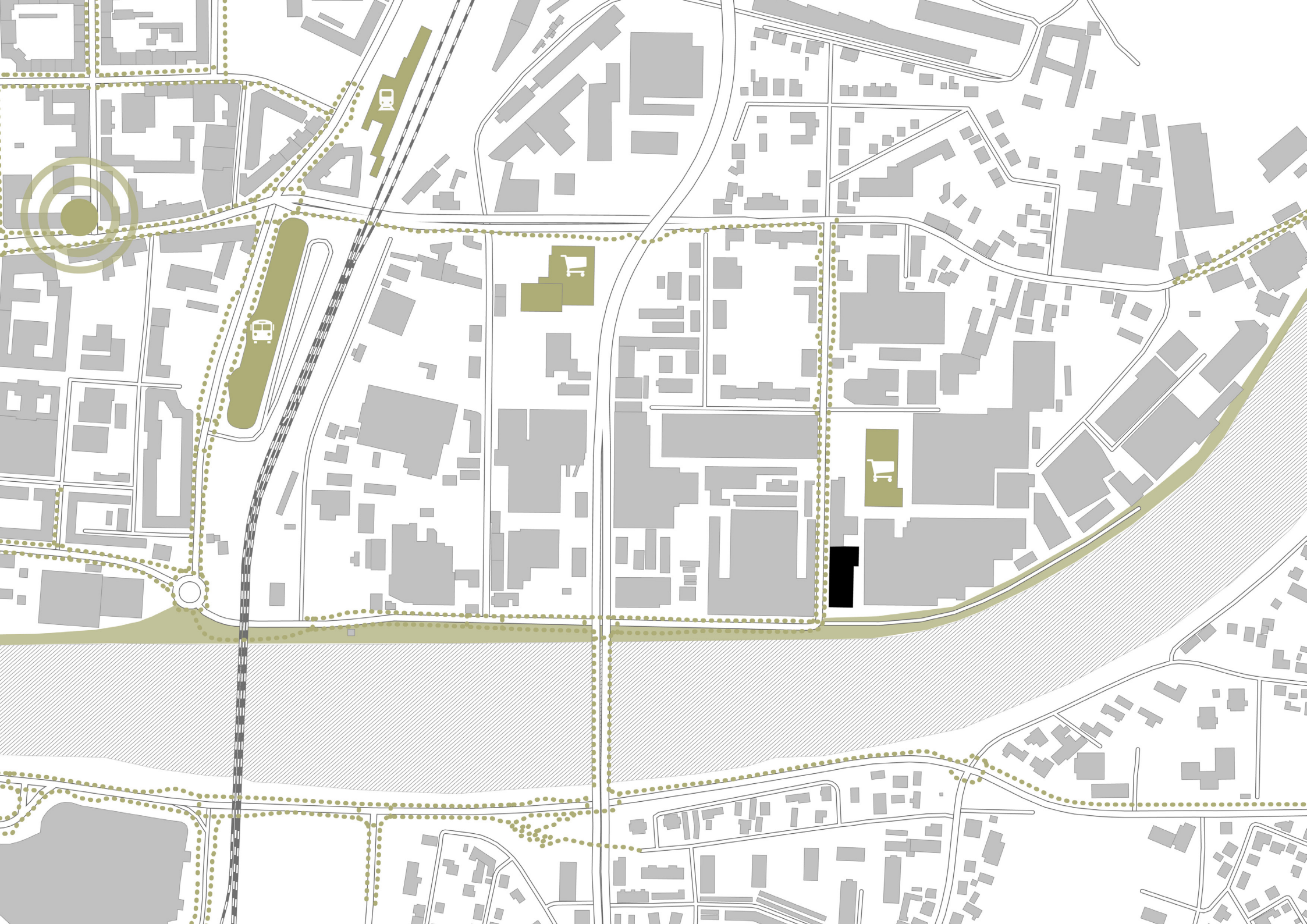
Other uses are dispersed in the buildings of the former barracks or other semi-empty buildings, for example, a dancing studio, some health associations, association of war veterans and a hostel. Security company Activa is also based in the area. Additionally, there are two car dealers and a number of small car services in the far east part of the area.


Primat
metal industry
Henkel
beauty/chemical
industry
Košaki
meat industry
Mariborska
livarna
foundry

Inventory of buildings

nr.	owner	function
1	Avtomobili P.R.	car service
2	evangelical church	empty
3	unknown	empty
4	Plinarna Maribor	gas supply
5	Lidl	supermarket
6	unknown	residential
7	unknown	residential
8	unknown	residential
9	unknown	residential
10	unknown	residential
11	Primat	metal industry
12	unknown	unknown
13	Henkel	beauty/chemical industry
14	unknown	unknown
15	unknown	garbage deposit
16	unknown	unknown
17	Košaki	meat industry
17i	Košaki	meat retail
18	Elektro	electricity supply
19	Dormeo	bed retail
20	unknown	sales and service
21	unknown	empty
22	unknown	empty
23	unknown	residential
24	unknown	residential
25	unknown	residential
26	Produkcija Plus	empty
27	unknown	empty
28	unknown	accommodation
29	unknown	association of nurses
30	unknown	acquired brain injury rehabilitation
31	unknown	empty
32	unknown	empty
33	unknown	empty
34	unknown	mixed-use
35	Eme T&T	transport technology
36	unknown	unknown
37	Mariborska livarna	foundry
38	unknown	service
39	unknown	residential
40	unknown	residential
41	unknown	residential
42	unknown	residential
43	Aktiva	security company
44	Aeon	company
45	Avto Koletnik	car dealer
46	Jager	shopping mall
47	MTT (bankrupt)	empty/storage facilities
48	unknown	empty
49	Republic of Slovenia	empty
50	Društvo za upravljanje terjatev bank	empty/storage facilities

* Information aquired from https://gis.iobcina.si/



highly frequented places

proximity of city center

embankment

cycle routes

Strengths

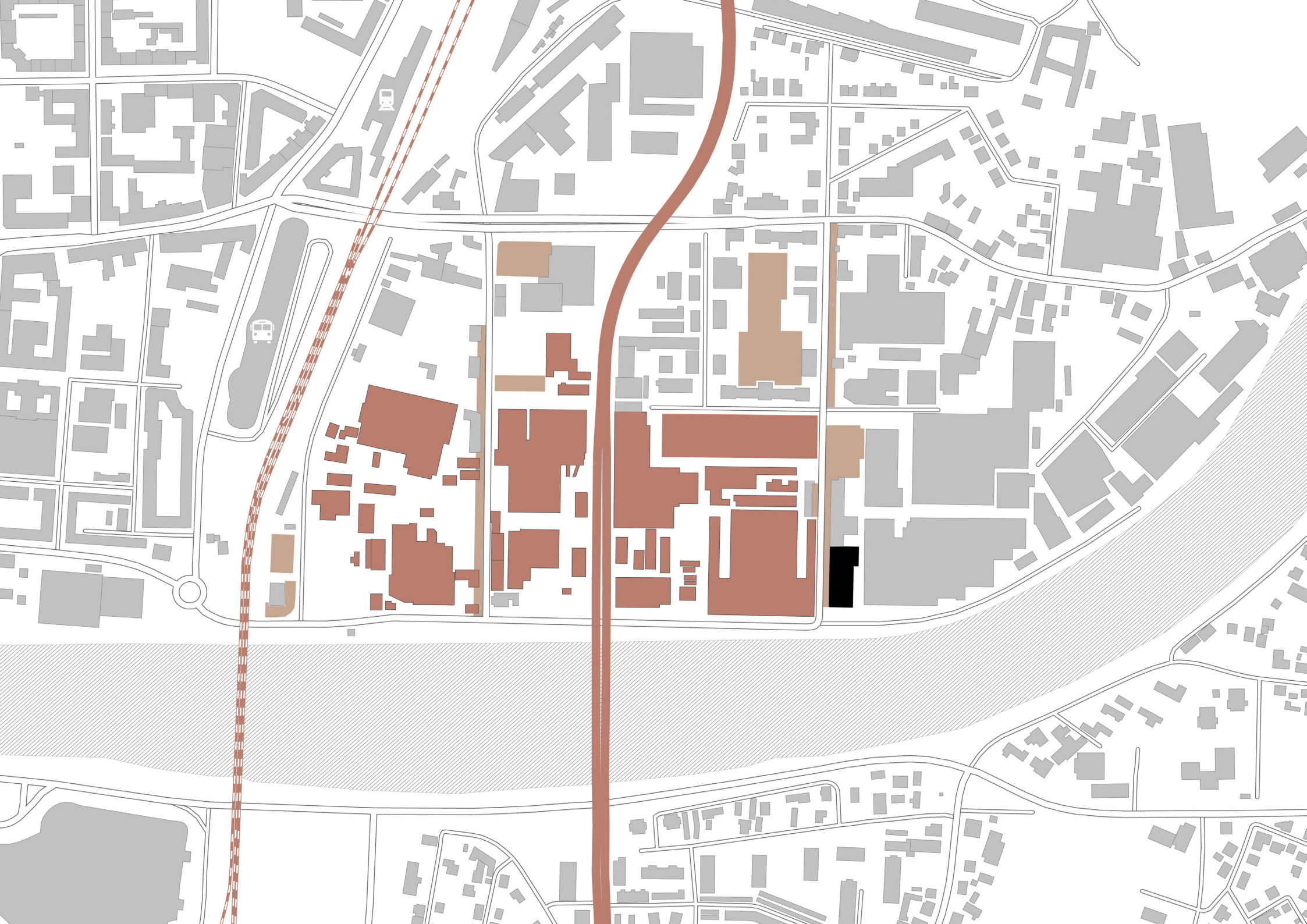
Melje has the advantage of being quite close to the city center in comparison to other two former industrial zones in Maribor (Tezno and Studenci) that are further away across the river Drava. It takes around 15 minutes by foot to reach the city center.

In addition, Melje is quite well connected and lies in direct proximity to the main train station, the main bus station and the entrance to the highway. Frequent bus stops in the area contribute to good connectivity, however the frequency of bus connections should be increased.

Another strength of the location is the proximity to the river Drava and the view to the right bank of Maribor. There are walking paths along the entire length of river Drava.

Melje has two highly frequented places that bring people other than workers into the area - supermarket with a café and a shopping centre, as well as a lot of service-oriented activities.

Last but not least is the historical heritage of the area. Melje is home to the former barracks, which were of immense military importance. Area is also rich in industrial heritage, the most significant being the buildings of the former Maribor Textile Factory, which hold architectural and historical value.



railway

expressway

surface parking

heavy industry

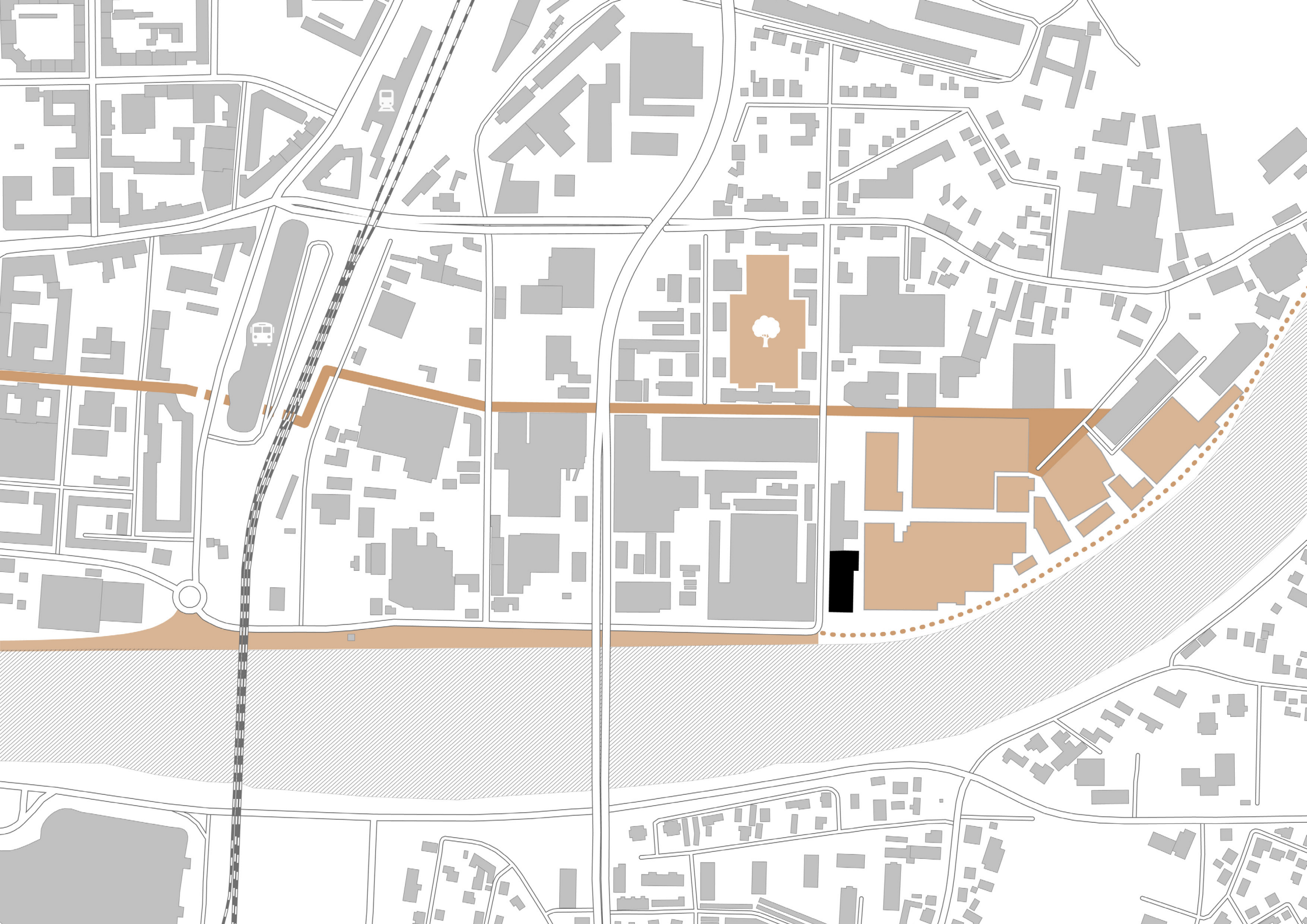
Weaknesses

First and biggest problem in Melje is an expressway that acts as a barrier and divides the area into two parts. Aside from physically and visually dividing the district, additional problems that arise are noise and pollution, which make the area less attractive for potential residents. Railway also acts as a barrier, because it disconnects the area from the old town core.

There is a lot of surface parking in the area. There are two large parking lots next to the supermarket and the shopping centre. Large courtyard in the area of the former barracks, which has a lot of potential, is also used as a parking lot. In addition, there is a lot of surface parking along the streets. The area is entirely devoid of public space and green/recreational spaces.

As a former industrial area, Melje still has a predominantly industrial character, which makes it unappealing for visitors. Buildings of industrial companies (for example Mariborska livarna) have no architectural or social value and do not contribute to the attractiveness of the area. In addition, there are high fences surrounding the buildings, making the area highly unattractive and closed off. Many former industrial buildings are used as storage facilities, which have no social value. There is also the concern of emissions from the existing industry.

Another obvious problem is the functional distribution of uses in the area and lack of diversity. Melje is still home to many big industrial companies. There are no culture-related activities there. The district is visited solely for the purpose of work, shopping or using many of the services provided in the area.



new connection

new cycle route

industrial buildings

development of the river bank

Opportunities and threats

Opportunities

The Drava riverbank offers a lot of opportunities for development. Cycle routes along the river can be extended to the east, and the already existing walk paths can be emphasized and made more attractive for pedestrians. A direct connection to the bus station, and therefore the city center, can be created by reestablishing the street that used to run east-west through the center of the area.

The courtyard in the area of former barracks, which serves as a parking lot, could be converted into a park or a common courtyard for residents, in order to bring more green spaces into the former industrial area. In general, new public squares and parks should be introduced to the area.

Some of the former industrial buildings that are empty or used as storage facilities today, have architectural value. For example, the buildings of former Maribor Textile Factory have a lot of potential to be converted into multifunctional cultural facilities. By leaving the former industrial buildings untouched, the industrial identity of the place is respected and gives the buildings a new dimension through new use.

Threats

Firstly, a process of revitalization of the area is a long term process, which can last for decades until any change is visible. Lack of investors or no support from public institutions can be a problem. Companies, such as Henkel and Primat, might resist the displacement of still running industrial production. There is also a threat of people not willing to move to the district until it gains a new image.

Furthermore, a problem that can occur in the long run is the process of gentrification. If the area reaches a higher standard, previously low rents and prices of the apartments might increase, causing the low income residents of the area to move.

Moreover, renovation or removal of industrial objects might be quite high in cost. There is also a possibility that the soil is contaminated due to years of exposure to pollution.

3 I steps to revitalization

importance of revitalization of post-industrial areas
conditions for change
new connections
new cycle routes
new inventory
phases
new vision for melje
new uses

Fig. 30: Industrial zone Melje

Importance of revitalization of post-industrial areas

Former industrial sites present us with the wide range of opportunities for the cities to develop. In the past decades, with the industry declining, the cities have come to realize and appreciate the potentials the former industrial areas have to offer. After the process of deindustrialization, many factories had to shut down or were relocated outside of the city centres. This made it possible for the sites to find new uses and presented the opportunity for the city to develop inwards, instead of expanding outwards.

The main feature through which the former industrial sites distinguish themselves from the newly built areas with characterless buildings is that they hold a special place in the history of the city and posses a certain character. They refer to the past, represent identity of the district, and are tied to the collective memory of the people. They are characterized by specific architectural language and spatial qualities, which reflect their previous use. They are rooted in the structure of the city and in this sense, they represent stability.

Simultaneuosly, those buildings convey a certain openess to new elements. Characteristics, such as an open floor plan and a generous size, make them very flexible and adaptable to a variety of uses. They are open to programmatic and semantic changes. They are dynamic, yet stable at the same time.[45]

Important aspect of the reuse of old industrial sites and its buildings is the economic aspect of it, which is tied to sustainable urban development. It is necessary to first take stock of the existing buildings in order to see what we have to work with. The easiest way out is to demolish the buildings and continue to build new buildings without taking the existing ones into consideration.

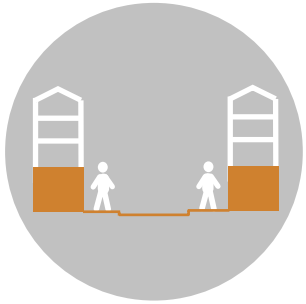
However, there are also several negative sides to the process of revitalization. One negative aspect of revitalization is gentrification. After the area has transformed and reached a higher standard, value of the existing property might rises, making it less affordable for the current and the new potential residents.

Furthermore, another problem that can occur through displacement of the industry is loss of diversity as well as displacement of people that are employed in the area. Displacing the industry by converting the area into a strictly commercial and residential area might prove to be problematic in the long run. It is diversity and heterogenity of uses that makes the cities interesting and successful.

Therefore, we have to take into consideration that a variety of uses and diversity are factors that promote a healthy urban life. It is important to find a healthy balance of uses, and even incorporate industry, however, to a lesser extent then previously. The aim is to find the continuity of usage based on today's needs.

In conclusion, revitalization of former industrial areas is a practice that is going to be more and more prominent, as the cities come to recognize the historical value and potential these areas have to offer, without neglecting the current zeitgeist.

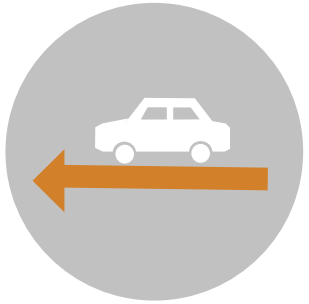
45 cf. Baum/Kees 2012, 8



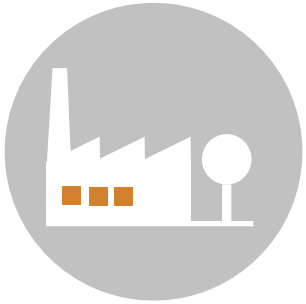
activation of
ground floor

mixed-use

public space



improved mobility



new identity

Conditions for change

For the former industrial area to develop, it is important to fullill certain conditions, which often overlap, and are closely related to one another.

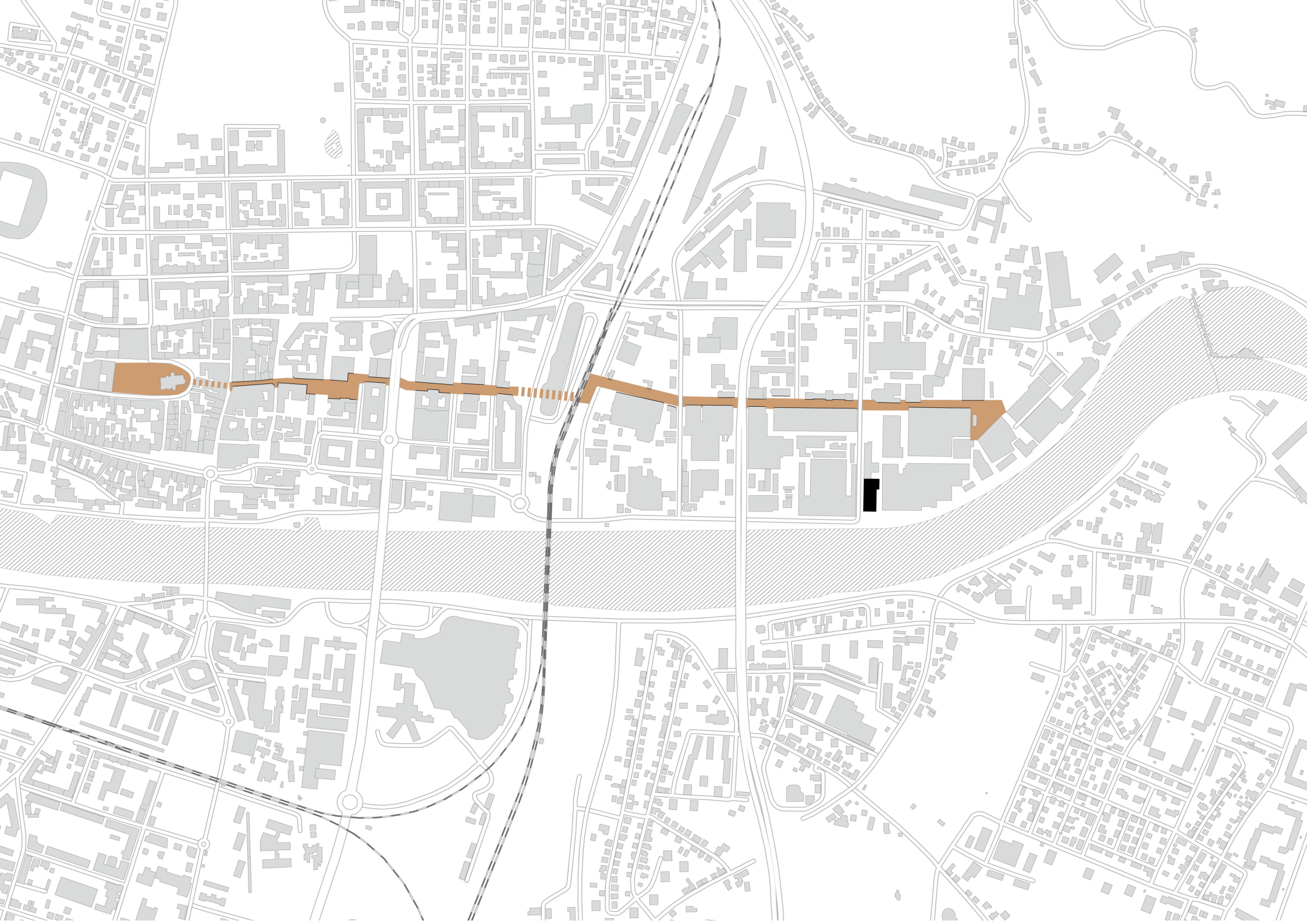
Activation of the ground floor area is necessary for the to revitalization of the area. This can be done by implementation of mixed-uses in the ground floor, which will keep the streets busy through all the hours of the day. Urban space should be made attractive for pedestrians. Surface parking should be reduced to necessary minimum to improve the spatial quality of the space.

A well-balanced mix of uses is another factor, which influences the development of the area. The area should not be monofunctional, but offer a variety of activities, such as service-oriented activities, shops, offices, culture. In terms of space this can be achieved with linear distribution of mixed-uses along the street or by concentration of specific uses in certain areas of the district.

Well designed public squares should also be introduced and placed in strategic locations. As the former industrial areas are usually devoid of vegetation, new public and private green areas should be introduced, such as parks in more publicly accessible places, and private courtyards for residents.

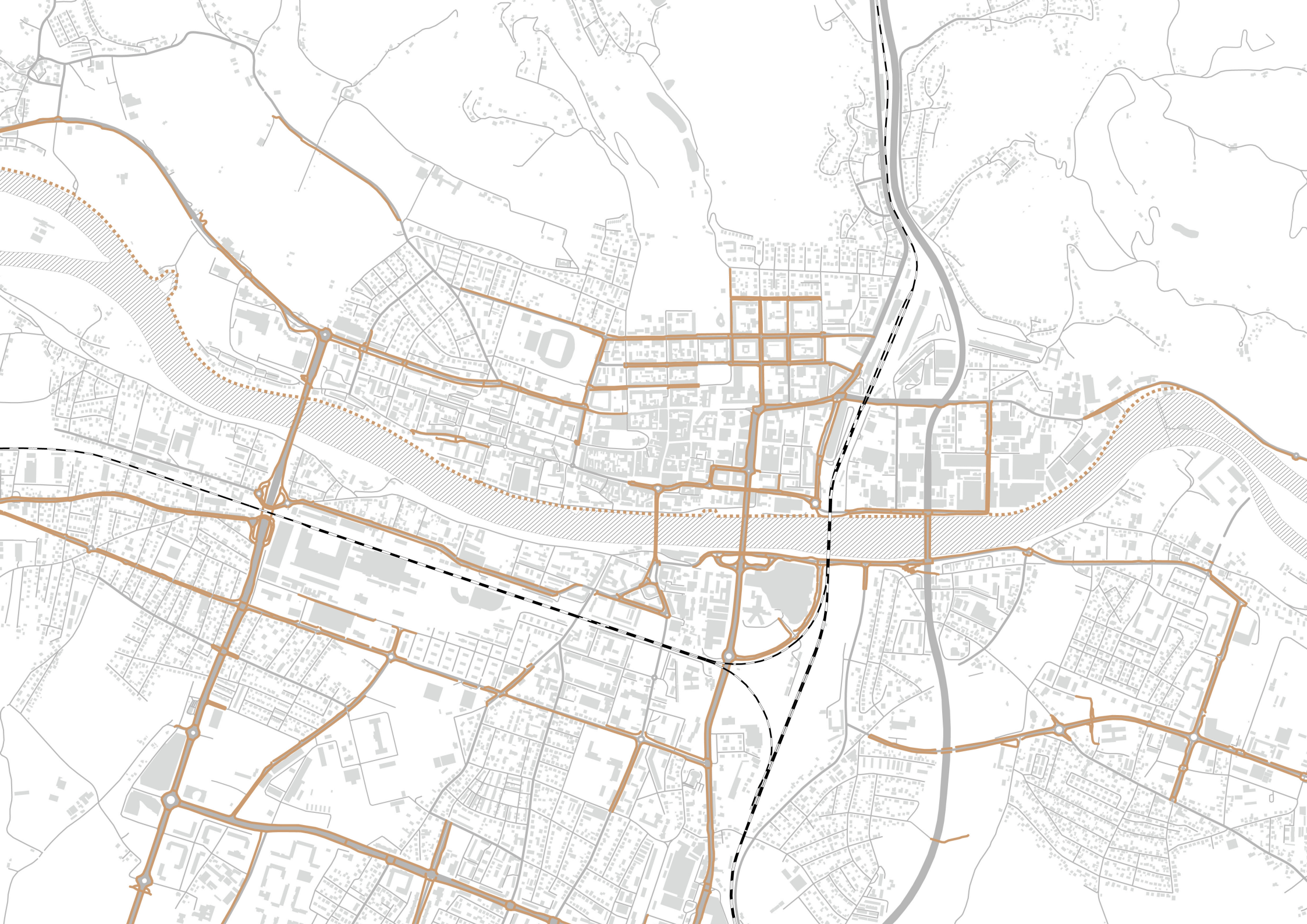
Improved mobility is another important aspect. Public transport should be enhanced with a more frequent bus schedule. As the industry tends to interrupt the traffic flow, new streets should be introduced if necessary, in order to improve mobility and accessibility of the entire area. Streets of lesser importance that only diminish the spatial quality should be removed. New cycle paths should be implemented.

Melje should strive to find a new image for itself, while preserving the past. Firstly, industrial objects in poor condition and those with no architectural value should be demolished to make space for new buildings. Buildings in good condition, which hold architectural or historical value should be renovated and a new appropriate function should be found, depending on the dimensions and proportions of the building. Lastly, the still running industry should be displaced over a long period of time. Integration of historical identity in form of exhibitions, workshops and use of materials is important in order to respect the industrial past of the place.



New connections

The area is well-connected in the north-south direction, however, there is no east-west connection going through the centre of the area. It is visible from the historical plans that there used to be a street called Street heroja Šaranovica that went through the area in the east-west direction. Today only a small section of the street remains. This former street will be reestablished. It will lead to the back of the main bus station. Two underpasses will be needed, since there are two barriers in form of an expressway and railway, running perpendicular to the street. In front the bus station there is already an existing passage that goes under the street and exits on the other side. It then extends to the old city centre. It begins with Sodna Street, crosses an important public square Trg Leona Štuklja (Leon Štukelj Square) and follows Jurčičeva Street. It ends at Slomškov trg (Slomšek Square), in front of University of Maribor. With this intervention, the area will become well-connected in the east-west direction, as well as form a connection to the main bus station and further to the historical town core.



New cycle routes

existing cycle routes

new cycle route

Although there are already established existing walking paths along the river Drava, the cycle routes are not marked separately and sometimes end abruptly. They will be better designed and marked appropriately to create a defined and strong connection along the river. They will run along the river, connecting two green spaces - Mariborski otok (The Isle of Maribor) in the west and Meljski hrib (Melje Hill) in the east and simultaneously connect the area on the left and on the right side of the railway. With this intervention the entire left bank of river Drava will become well-connected and accessible by bycicle.

buildings to remain

buildings to be demolished

buildings to be renovated

buildings to be removed long term

Future inventory

Buildings to remain

Buildings that will remain are those in good condition with existing uses that have social value and contribute to the development of the area. This includes most of the existing residential buildings, a shopping centre and a supermarket.

Buildings to be demolished

Buildings that will be immediately demolished are those in poor condition that are abandoned or currently serve as storage facilities. Those are the buildings that do not contribute to the development of the area. This also includes the buildings, which still serve for industrial production, but have no architectural, historical or social value. Example of that is the foundry Mariborska livarna.

Buildings to be renovated

Buildings in good or acceptable condition that are currently abandoned or serve as storage facilities will be renovated. Additionally, they will find a new use that will contribute to the development of the area. Those are the buildings that posses architectural and historical value. This includes the former Textile Institute and Maribor Textile Factory.

Buildings to be removed long term

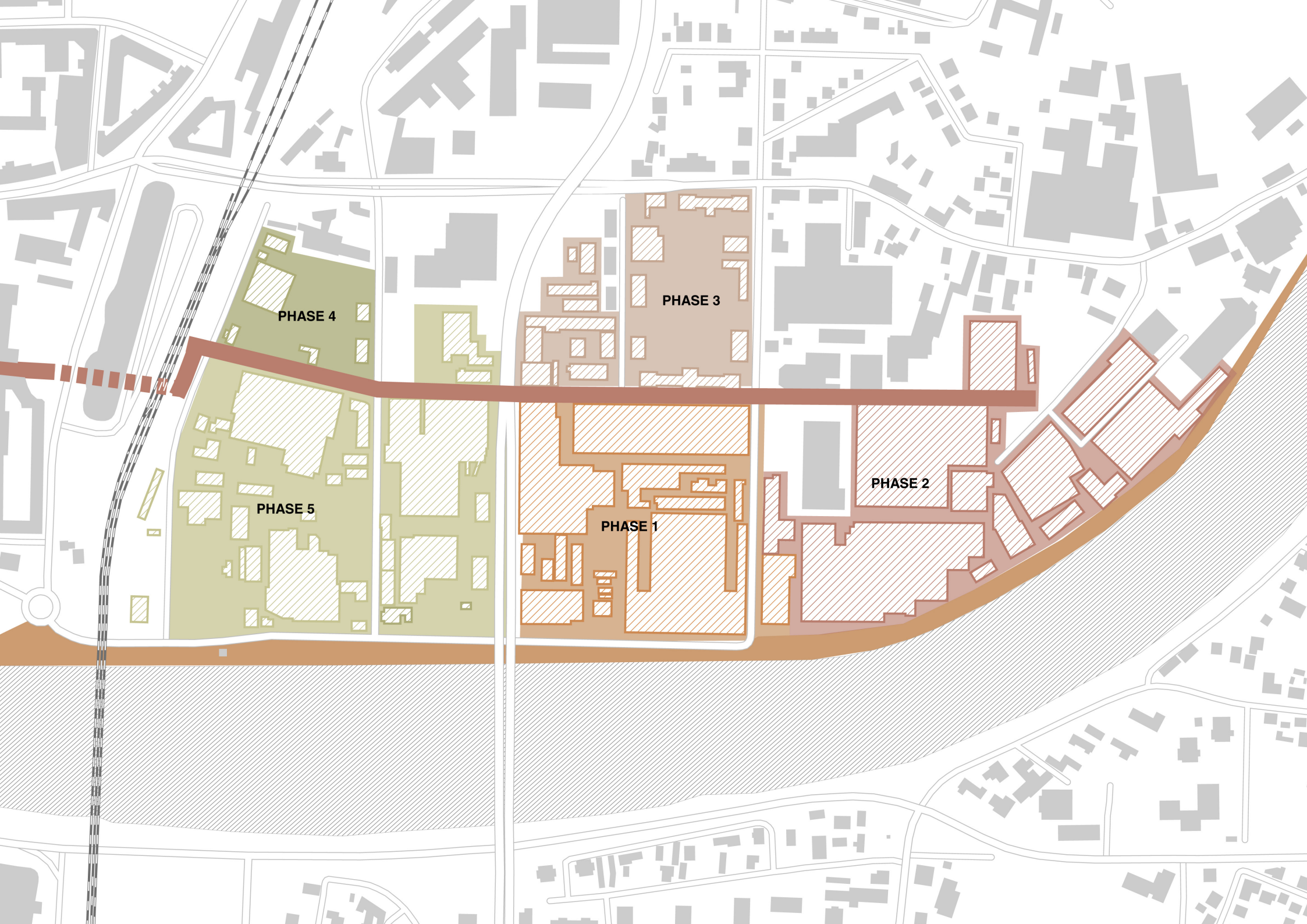
Buildings in good or acceptable condition that currently serve as industrial production facilities will be removed in the long run, and the industrial production will be displaced to another location. Those buildings have a use that does not contribute to the development of the area and are decreasing its quality and attractiveness. They will be removed in the future to make space for new residential/mixed-use buildings that will increase the social value and the quality of the area. This includes chemical factory Henkel, metal parts manufacturing plant Primat and meat processing plant Košaki.

Buildings to be renovated

Buildings to remain

Industry to be removed long-term

Buildings to be demolished


PHASE 4
PHASE 3
PHASE 5
PHASE 1
PHASE 2

Phases

Phase 1
First phase includes multiple steps. First one is the development of the Drava riverbank. Cycle route along Drava that ends at the Textile Institute will be extended to the east to connect all the green areas along the river. The next step needs to be a big intervention that will kickstart revitalization of the area. For that reason the buildings of foundry Mariborska livarna will be demolished to make place for new residential buildings. The last step of this phase is creating a pedestrian path that will lead to the main bus station and connect further to the city center. With this intervention, Melje will become connected to the old town core. Reconstruction of the Textile Institute is included in this step.

Phase 2
After the first and most important measure, phase two will include introducing a variety of new public and cultural uses to the area.The buildings of the former Maribor Textile Factory will be reused for a gallery, market, event hall, student housing, hostel, offices, sports courts and more.

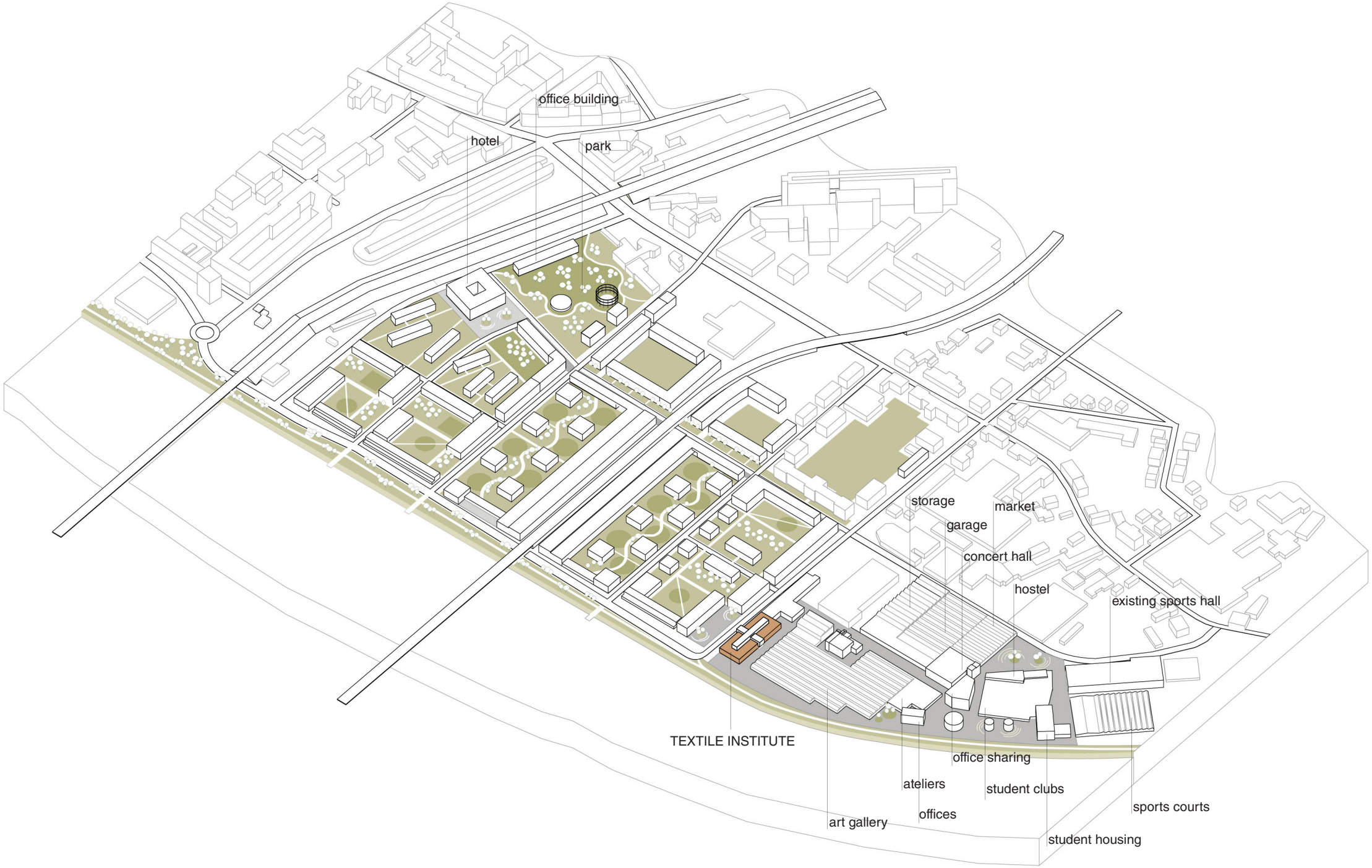
Phase 3
In phase three, the buildings of the former barracks will be converted into residential buildings with a large common courtyard. The area to the west of the barracks will be used as the location for office buildings and additional residential buildings.

Phase 4
Phase four concerns itself with the area that is in the direct proximity of the railway, where the gas supply company Plinarna is located. It will be converted into a large public park with a café and an adjacent office building.

Phase 5
After a variety of new uses have been implemented and Melje has undergone a transformation, factories Primat and Henkel will have no more place in the district and will be displaced to another location. Areas of both factories will be transformed into new residential districts with public uses in the ground floor. The area closest to the railway will be used for the location of the new hotel due to its proximity to the main bus station.

- residential
- accomodation
- residential with mixed programme in ground floor
- garage
- gastronomy
- culture
- offices
- student organizations
- sports

New uses


office building
hotel
park
storage
market
garage
concert hall
hostel
existing sports hall
TEXTILE INSTITUTE
office sharing
ateliers
student clubs
offices
sports courts
art gallery
student housing

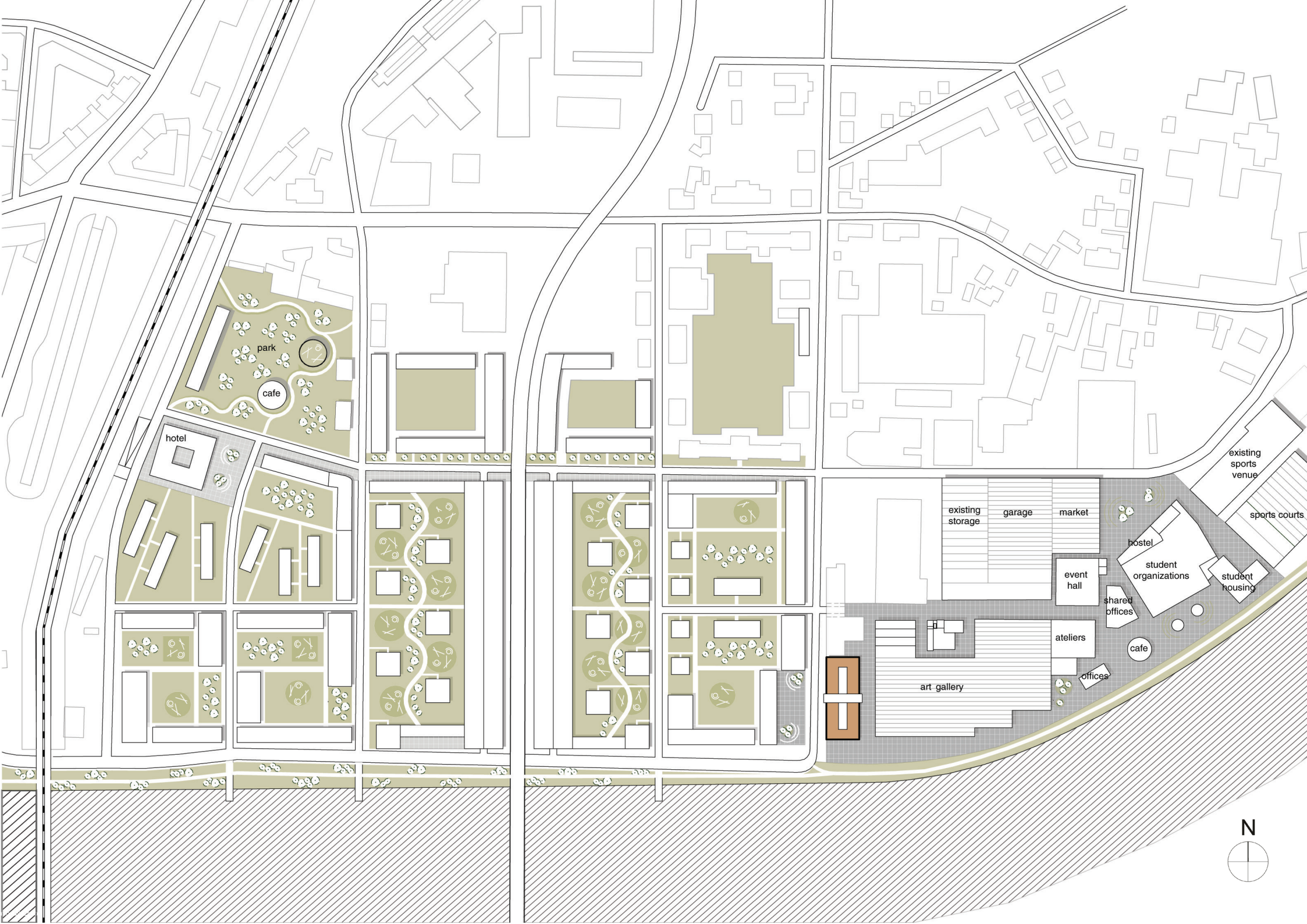
New vision for Melje

Melje is in a need of a complete revitalization. A variety of uses need to be introduced in order to add diversity and balance to the area. New public spaces as well as green recreational areas need to be created.

A big part of the former industry will be demolished to make place for new residential buildings. New residential quartiers will be created based on the existing grid of the streets. New residential buildings will be of various typologies. Higher longitudinal volumes will be built along the main streets in order to block the traffic noise from the street and to create privacy. There will be a mix of public functions in the ground floor, such as smaller shops and service-oriented activities, which will help to activate flow of people on the street during the day.

Along the street parallel to Drava, residential areas will be closed with lower volumes, to block the traffic noise from the street but simultaneously provide residents of the buildings in the north with views of the river. The building volumes inbetween will be more open and playful. Inbetween, courtyards for residents that will be connected through pedestrian paths will emerge. East of the railway, a hotel will be situated. Across the street from the hotel, there will be an office building, which will help block the noise from the railway. Next to it will be a public park with a café and a playground that will implement the existing gas tank into its design. In the centre of the area, to the right and to the left of the expressway, garages that will provide residents with parking space, will be constructed. They will act as a noise barrier, and additionaly help to reduce the surface parking in the area.

Culture related functions will be concentrated in the area of the former Textile Factory. First intervention will be the reconstruction of the Textile Institute. The vast hall behind it that currently serves as storage space will be converted into a new gallery with and an administration building adjacent to it. The eastern part of the building will serve as an atelier for artists. In addition, a new concert hall, student accommodation and a new market will occupy the premises of the former factory. The embankment will be revitalized with newly designed pedestrian and cycle routes. Three piers will be created as visual extensions of the north-south oriented streets in order to emphasize their axis.


park
cafe
hotel
existing storage
garage
market
existing sports venue
sports courts
hostel
student organizations
student housing
event hall
shared offices
ateliers
cafe
offices
art gallery
N

new masterplan I M 1:4000

5 I examples of building conversions

Tate Modern Gallery
Palais de Tokyo
Tabakfabrik Linz

Fig. 31: View of Tate Modern

Tate Modern Gallery

Tate Modern is an iconic modern art gallery, located in London. The gallery has a strong industrial character, as it was created by the transformation of the former Bankside Power Station. It is situated on the south bank of river Thames, in the district called Bankside. It is located opposite of St. Paul's Cathedral. Its 99 m high chimney serves as a counterpoint to the 114 m high dome of the cathedral, and was purposely built lower.[46] The axis connecting Tate Modern and St. Paul's Cathedral is emphasized with the Millenium bridge, a footbridge that links the north and the south bank of Thames.

The original building was designed by Sir Giles Gilbert Scott, and was built in two phases, between 1947 and 1963. Power station was shut down in 1981 due to pollution. In 1994, The Tate Gallery purchased the building and organized a competition to select the best design for the future gallery. Among famous architects, such as Tadao Ando, Rem Koolhaas, Renzo Piano, and more, Swiss architects Herzog und de Meuron were chosen to design the new gallery. The key goal of their design was to retain the original industrial look of the building as well as preserve the massive space of the Turbine Hall. The conversion was finished in 2000.[47]

The main features of the original building were the vast Turbine Hall, the Boiler House alongside it and one central chimney. In order to transform the former power plant into a gallery, the original machinery was removed, and many adjacent buildings demolished. All that remained of the original building was a brick shell and a steel skeleton. A steel framework was built inside the existing brick walls, to support the newly created seven floors of the gallery. In addition, roofs of the old Boiler House and Turbine Hall were removed, to accomodate the extensive light box. The newly added volume would run along the entire length of the gallery and serve as a natural source of light as well as provide the visitors with the views of Thames.[48]

The northern section of the building (former Boiler House) is oriented towards the river and consists of seven levels. The main entrance is located on level one. In the basement, there is a large book shop, levels two to four are reserved for the exhibition space, fifth floor is the members area and on the top floor there is a restaurant.

46 cf. Facts and figures, https://www.tate.org.uk/about-us/projects/constructing-tate-modern/facts-and-figures, 3.6.2020
47 cf. Jodidio 2008, 372
48 cf. The building, http://www2.tate.org.uk/archivejourneys/historyhtml/bld_mod_building.htm, 3.6.2020

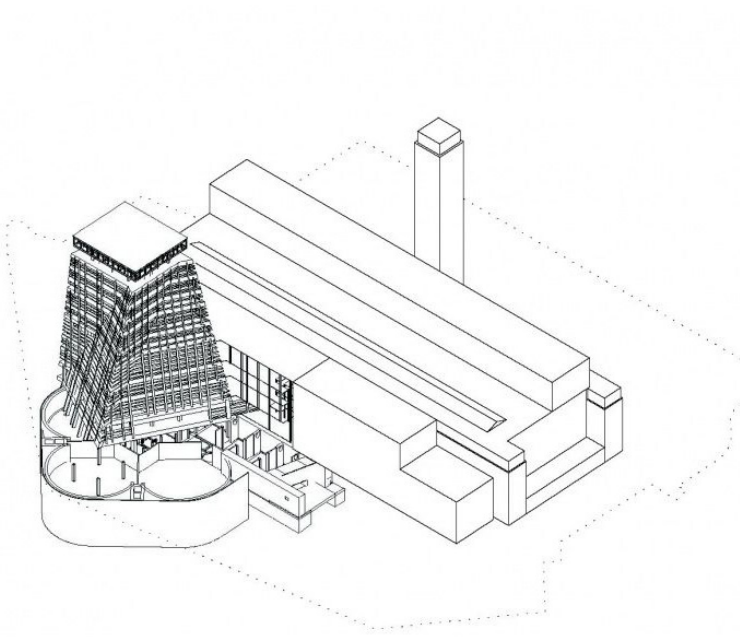


Fig. 32: Axonometry

Fig. 33: The Weather Project in Tate Modern

Fig. 34: The Tanks

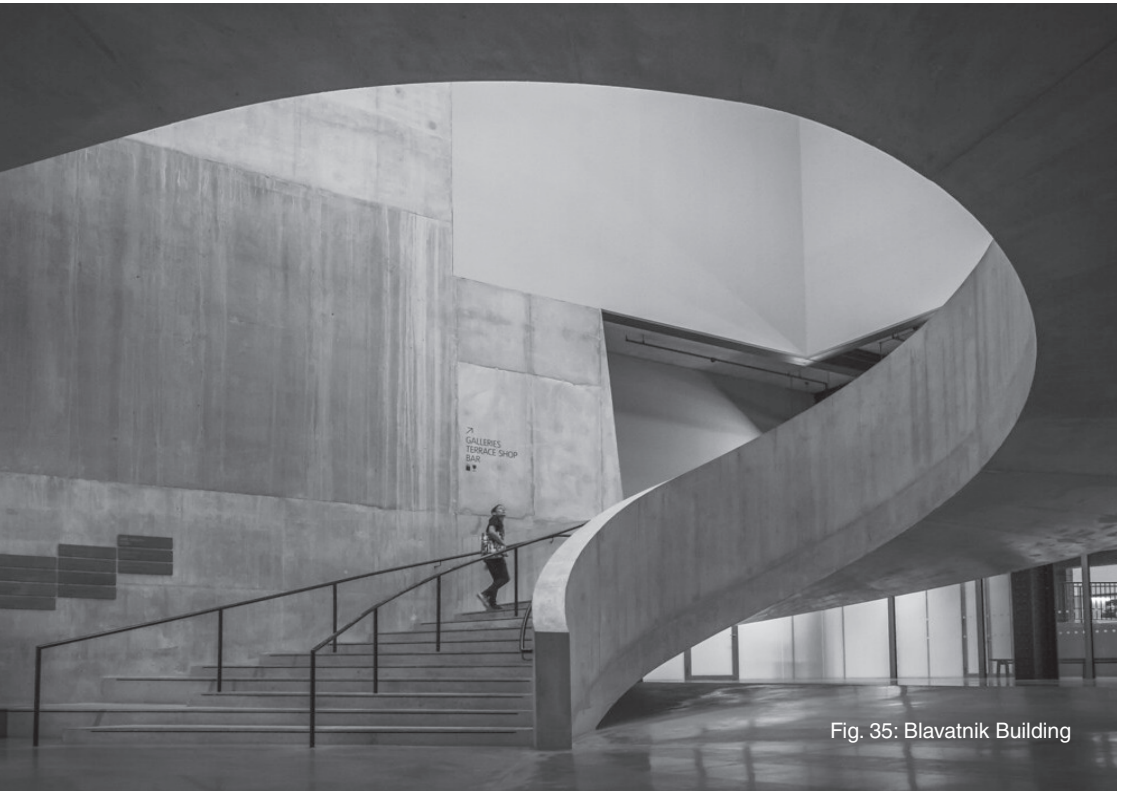


Fig. 35: Blavatnik Building

Fig. 36: Turbine Hall

49 cf. Turbine Hall, https://www.tate.org.uk/visit/tate-modern/turbine-hall, 3.6.2020
50 cf. Rennie Jones: AD Classics. The Tate Modern / Herzog & de Meuron, 17.9.2013, https://www.archdaily.com/429700/ad-classics-the-tate-modern-herzog-and-de-meuron, 3.6.2020
51 cf. Jodidio 2008, 372
52 cf. Facts and figures, https://www.tate.org.uk/about-us/projects/constructing-tate-modern/facts-and-figures, 3.6.2020
53 cf. Rennie Jones: AD Classics. The Tate Modern / Herzog & de Meuron, 17.9.2013, https://www.archdaily.com/429700/ad-classics-the-tate-modern-herzog-and-de-meuron, 3.6.2020
54 cf. Design, https://www.tate.org.uk/about-us/projects/tate-modern-project/design, 3.6.2020

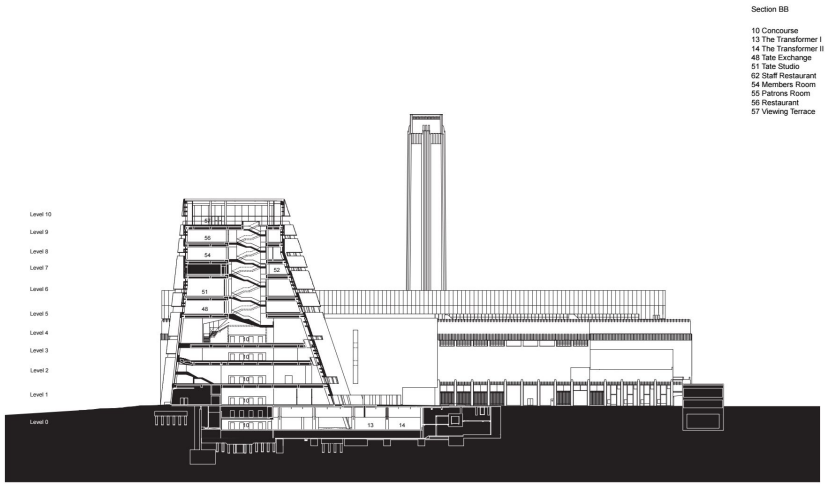


Fig. 37: Section

The 3300 m² big central Tubine Hall measures 35 m in height and 155 m in length.[49] It represents the heart of the building. The architects transformed it from the place for machines into the place for people. A wide ramp leads from the west entrance down into the hall. The Turbine Hall is not just a social space, but also serves as an exhibition space. Once a year Tate Modern offers one artist a challenge to produce an installation that will occupy the vast, majestic space of the Turbine Hall. The exhibition spaces in the former Boiler House are of various sizes and very unobtrusive aesthetics, with heights ranging from five to twelve meters.[50] Untreated wood and polished concrete are used alternately for the flooring in the exhibition spaces.[51]

The facade of Tate Modern consists of 4,2 million bricks.[52] It is separated through narrow, vertical windows, which lead the sunlight into the gallery in a dramatic manner. It was important for the architects to retain the original look of the building, which is why they decided to keep exterior changes to the minimum. Design can be described as strict simplicity. The most obvious change to the exterior is the placement of the parallel running glass box on the top of the building. It serves as a horizontal contrast to the vertical chimney. In terms of materials, the translucent glass also serves as a contrast to the rough brickwork.[53]

In 2016, an extension to Tate Modern was constructed. So called Blavat building was also designed by Herzog und de Meuron. This 11-storey pyramidal building is attached to the existing building at the south of the Turbine Hall. Massive oil tanks at the base of the building are the defining feature of the new gallery. These raw industrial spaces can be transformed into unique performance and exhibition spaces. The new extension offers an even greater variety of exhibition rooms and more space for temporary exhibitions. In addition, it houses a restaurant, seminar rooms, members room and a public terrace on the top.[54]

The gallery, which is a remarkable combination of the old and the new, is of great importance to London, not only due to its excellent architectural qualities and rich collection of artwork, but also due to its contribution to the revival of the long-neglected district of Bankside. It managed to turn the former industrial area into a lively cultural district.

Fig. 38: Palais de Tokyo

Palais de Tokyo

55 cf. Palais de Tokyo, https://www.museeum.com/museum/palais-de-tokyo/, 4.6.2020
56 cf. Andrew Ayers: Palais de Tokyo rejuvenated in Paris by Lacaton and Vassal, 28.5.2012, https://www.architectural-review.com/today/palais-de-tokyo-rejuvenated-in-paris-by-lacaton-and-vassal/8630777.article, 4.6.2020

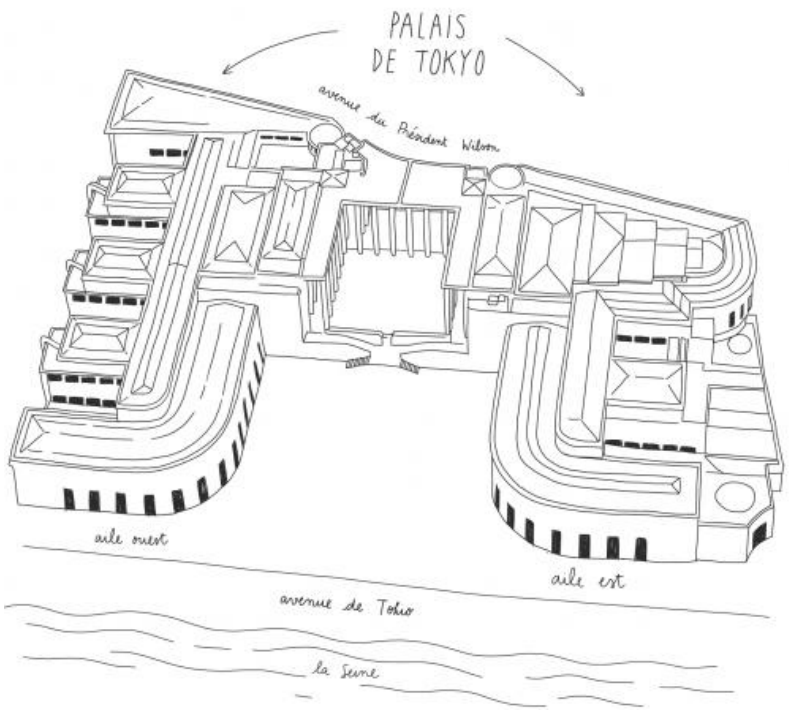


Fig. 39: The building

Palais de Tokyo is a contemporary art centre, located in Paris, which dates back to 1937. It was originally built for the International Exhibition of Arts and Technology and was situated on the so-called Avenue de Tokyo, hence the name.[55]

This monumental building was designed by the architects Jean-Claude Dondel, André Aubert, Paul Viard and Marcel Dastugue. The gallery was to house the modern art collection of the city of Paris as well as the state of France, which is why the architects decided to design a twin building. Two separate wings of the buildings, which frame the public piazza in the centre, and descend down towards the embankment, are connected by a colonnade at their entrance sides. From the outside they exude rationalist stone-clad classicism, which fully conceals the brutalist nature of its concrete-frame structure. Today, the eastern wing is still home to the Museum of Modern art of the city of Paris, while the western half of the building that belongs to the state has had a more turbulent past.

Palais de Tokyo was soon overshadowed by the Centre Pompidou opened in 1976, and quickly lost its primary purpose due to its popularity. It was used for a variety of uses until, in the early 1990s, the culture ministry decided to place a cinema museum under its roof. A significant amount of money was spent on demolishing and stripping the interior, only for the project to be abandoned in 1997 due to the change of government. The building was left abandoned - only a stripped, structurally weakened framework remained, until the ministry decided to convert it into a centre for contemporary creation in 1999.

Named simply ‘Palais de Tokyo’, this new institution was founded by international curators of contemporary art, Nicolas Bourriaud and Jérôme Sans. Palais de Tokyo was to be a venue with no permanent collection, which would occupy 7.800 m^2 of the 24.300 m^2 available in the west wing. Only €3 million were made available for the building conversion, and three architectural firms (out of 130 candidates) selected to draw up their designs. In the end, architects Anne Lacaton and Jean-Philippe Vassal were chosen, because their proposal made the most out of the available budget - in terms of space and flexibility.[56]

Fig. 40: Exhibition in Palais de Tokyo

Fig. 41: Palais de Tokyo

Fig. 42: Exhibition in Palais de Tokyo

Fig. 43: Exhibition in Palais de Tokyo

57 cf. Andrew Ayers: Palais de Tokyo rejuvenated in Paris by Lacaton and Vassal, 28.5.2012, https://www.architectural-review.com/today/palais-de-tokyo-rejuvenated-in-paris-by-lacaton-and-vassal/8630777.article, 4.6.2020

58 cf. Tim Winstanley: Palais de Tokyo Expansion / Lacaton & Vassal, 29.6.2012, https://www.archdaily.com/248026/palais-de-tokyo-expansion-lacaton-vassal, 4.6.2012

59 cf. Andrew Ayers: Palais de Tokyo rejuvenated in Paris by Lacaton and Vassal, 28.5.2012, https://www.architectural-review.com/today/palais-de-tokyo-rejuvenated-in-paris-by-lacaton-and-vassal/8630777.article, 4.6.2020

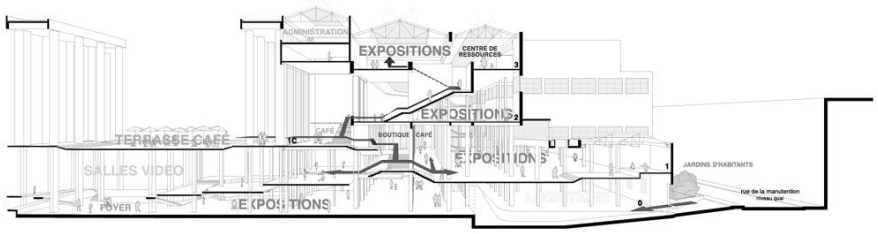


Fig. 44: Section

The architects took a very minimalist approach, not only due to the limited budget, but also because of their respect for the original structure. Upon their first visit of the site, Lacaton and Vassal were convinced that "the architecture is already there". They claimed that the building was "striking because of the rightness of its architecture, its dimensioning, its balance of relationships … The museum had been conceived around two axes, horizontal and vertical, … and we wanted to regain that freedom of use." The aim of the architects was to preserve the building's beatiful concrete frame, which had been uncovered after the interior had been gutted. However, since it had been weakened, parts of it were reinforced as unnoticeably as possible.

Another attribute of the original building that the architects admired was its brightness and openess. This was achieved with the giant windows on the north, south and east facades, and the glass roofs in all the other galleries. Lacaton and Vassal resolved to keep this luminosity and visual connection to the outside. A big portion of their budget went into achieving this through reparation of the skylights and the almost unobtrusive implementation of new exits into the metal-framed gallery windows.[57]

The gallery first opened for public in 2002. However, the need for more space soon became evident, and in 2012, the gallery underwent an expansion. The architects responsible for the original restoration were comissioned to expand the gallery from 7.000 m^2 to 22.000 m^2. With the expansion, they remained faithful to their original design and continued with the themes of rawness and honesty of materials. After they broke through to uncover the unused basement, the evidence of this process had been left exposed. In contrast to the usually sterile clean atmosphere of the exhibition spaces, the exposed architectural elements of Palais de Tokyo are left to naturally age freely. Another significant aspect of the gallery is that there is no prescribed path or direction. The visitor is free to roam the building and explore the exhibition spaces in the whatever way he prefers.[58]

Those disappointed by the "clinical sterility" of Tate Modern will be appreciative of the "lived-in rawness" of Palais de Tokyo. Small imperfections, which could have easily been repaired, have been preserved, such as flaking paint, protruding nails and dirty walls.[59] It is in those details, in its honesty and rawness, that the beauty of Palais de Tokyo lies.

Fig. 45: Tabakfabrik Linz

Tabakfabrik Linz

60 Das Gebäude, https://tabakfabrik-linz.at/informationen/das-gebaeude, 6.6.2020
61 Tobias Sckaer: Radikaler Funktionalismus.Die Tabakfabrik Linz, https://www.ubm-development.com/magazin/tabakfabrik-linz-bauhaus, 6.6.2020
62 cf. Tabakfabrik, https://stadtgeschichte.linz.at/denkmal/default.asp?action=denkmaldetail&id=907, 6.6.2020

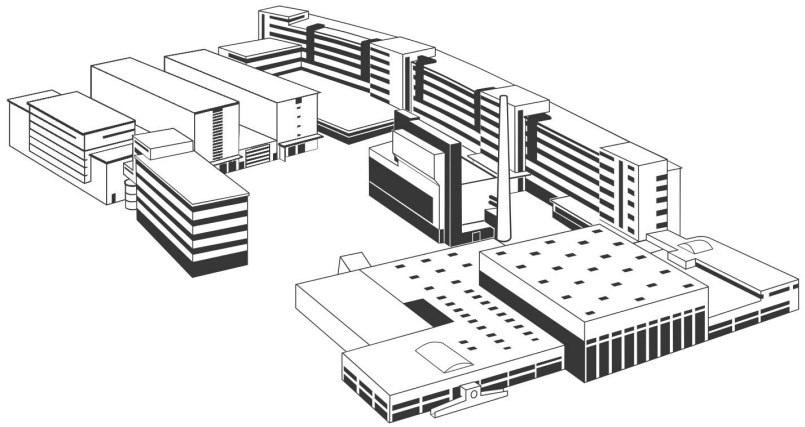


Fig. 46: The building

Tabakfabrik Linz (The Linz Tobacco Factory) is a building complex in Linz, designed by star architects Peter Behrens and Alexander Popp and built between 1929 and 1935. This former industrial plant is the first steel skeleton structure in Austria built in the style of the New Objectivity, which is why it is also important in terms of architectural history.[60]

The use and the development of the approximately 38,000 m^2 area between the centre of Linz, the Danube area and the harbor district dates back to the time of the First Industrial Revolution. Textiles were manufactured on the site from 1762 onwards. In 1850, they decided to construct a tobacco factory for the production of smoking and chewing tobacco. This decision turned out to be a stroke of luck; the company was immensly successful and quickly became a symbol of economic recovery through change. By 1859, workforce had grown to more than 1.000 employees.[61]

From 1855 to 1902, numerous extensions to the building were constructed. However, due to a continuous increase in production, a decision was made in 1928 to build a new factory building as a replacement for the generally outdated and technically inadequate complex of buildings. The renowned Viennese architecture firm Peter Behrens and Alexander Popp were comissioned to design the new factory. Tabakfabrik Linz is Behren's last major factory building and at the same time his first design in the sense of functionalism and New Objectivity.

The new building was aligned after the curved lines of the property in the south to Ludlgasse. Construction of the new building was carried out in several phases. The tobacco factory began operating on the 12th of November 1935. Linz Tabakfabrik employed around a thousand employees, which made it possible to produce around five billion cigarettes a year during the Second World War. In 1982, Tobacco Control constructed a building complex, which included administration, sales warehouse, final packaging and a fully automated pallet warehouse. An attempt was made to match the colour of the new buildings to the existing ones, but the precast concrete architecture was a big downgrade in terms of the architectural quality.[62]

Fig. 47: Start-up in Tabakfabrik

Fig. 48: Tabakfabrik inside

Fig. 49: Start-up in Tabakfabrik

Fig. 50: Lösehalle

63 cf. Tobias Sckaer: Radikaler Funktionalismus. Die Tabakfabrik Linz, https://www.ubm-development.com/magazin/tabakfabrik-linz-bauhaus, 6.6.2020
64 Sebastain Redecke: Die Tabakfabrik in Linz, https://www.bauwelt.de/themen/bauten/Die-Tabakfabrik-in-Linz-Moderne-Industriebauten-Peter-Behrens-Alexander-.Popp-2153431.html, 6.6.2020
65 cf. Tabakfabrik, https://stadtgeschichte.linz.at/denkmal/default.asp?action=denkmaldetail&id=907, 6.6.2020
66 cf. Tobias Sckaer: Radikaler Funktionalismus. Die Tabakfabrik Linz, https://www.ubm-development.com/magazin/tabakfabrik-linz-bauhaus/, 6.6.2020
67 cf. Nina Fuchs: Zentraler Teil der Tabakfabrik Linz wird revitaliziert, 10.12.2019, https://tabakfabrik-linz.at/2019/12/braukunst-und-kreativitaet-im-kraftwerk, 6.6.2020
68 cf. Tobias Sckaer: Radikaler Funktionalismus. Die Tabakfabrik Linz, https://www.ubm-development.com/magazin/tabakfabrik-linz-bauhaus/, 6.6.2020

At the time of its construction, nobody suspected that the production would continue for 150 years, with increasing automation, and from 1935 in one of the most innovative industrial buildings. Over the years, only the owners have changed. In 2001, it came under the owndership of Japan Tobacco International. The Japanese ceased operations in 2009. As a result, the city of Linz bought back the site and most of the buildings. The foundation stone for the new era of Tabakfabrik Linz was laid.[63]

The decisiveness and the clarity of the chosen shape reveal the modernity of the buildings.[64] The building complex incorporates a 227 m long and 16,5 m wide six storey main wing with an area of 30.000 m². Its core consists of a steel frame with a weight of 3000 tons. The 38 cm thick exterior walls, which are made of hollow brick, are not load-bearing, but have thermal and architectural properties. Flat window strips in the exterior wall emphasize the horizontal character of the building, especially on the south facade.

The height of the window strips on the upper two floors is reduced by one bar unit. This suggests a uniform height of the window strips. All window profiles were painted blue-green. The base of the building is dressed with red clinker bricks and the cornices are made of stonemason-treated concrete. The rest of the exterior brick wall is covered with beige coloured plaster.[65]

Since this architectural masterpiece came under the ownership of the city of Linz, its premises have been used for trans-disciplinary practices and development of the projects devoted to the topics of creativity, social issues, work and education.[66] Plans have been made for the revitalization and future use of the central object in the area; the former power plant of the tobacco factory. Restoration of the building is set to begin in 2021 and is going to include a multi-functional auditorium, a restaurant and a brewery.[67]

At the beginning of 2019 around 1.600 people worked in Tabakfabrik, in corporations and start-ups in the creative fields. Once the building complex is fully expanded, the area will be occupied by about 3.000 creative minds. Spatially and conceptually, Tabakfabrik offers a lot of place for new ideas and their concrete implementation. It has become the hotspot for the urban development and the centre of creative industries in Linz that is constantly evolving.[66]

4 I textile institute

location
views of surroundings
the textile institute
analysis of the building
existing floorplans

Location

The former textile institute is located in Melje, on the southern end of Kraljeviča Marka Street. The building lies in the direct proximity to the river Drava. It is within a 700 meter radius to the main bus station and the main railway station. Across the street to the west, there is Mariborska livarna, a foundry. To the east of the Textile Institute, behind the building, there is a complex of buildings that belonged to the former Maribor Textile Factory, and were associated with the Textile institute. An empty building with the same eaves height is attached to the Textile Institute on the northern side. On the same street, less than 150 m to the north is a shopping mall Jager, a car dealer Avto Koletnik, and a security company Aktiva further up the street. The rest of the buildings in the street are either abandoned, or mixed-function with service-oriented activities. Two residential buildings are located on the northern end of the street.

Views of surroundings


KERAMIN


SAVA

Fig. 51: Textile Institute

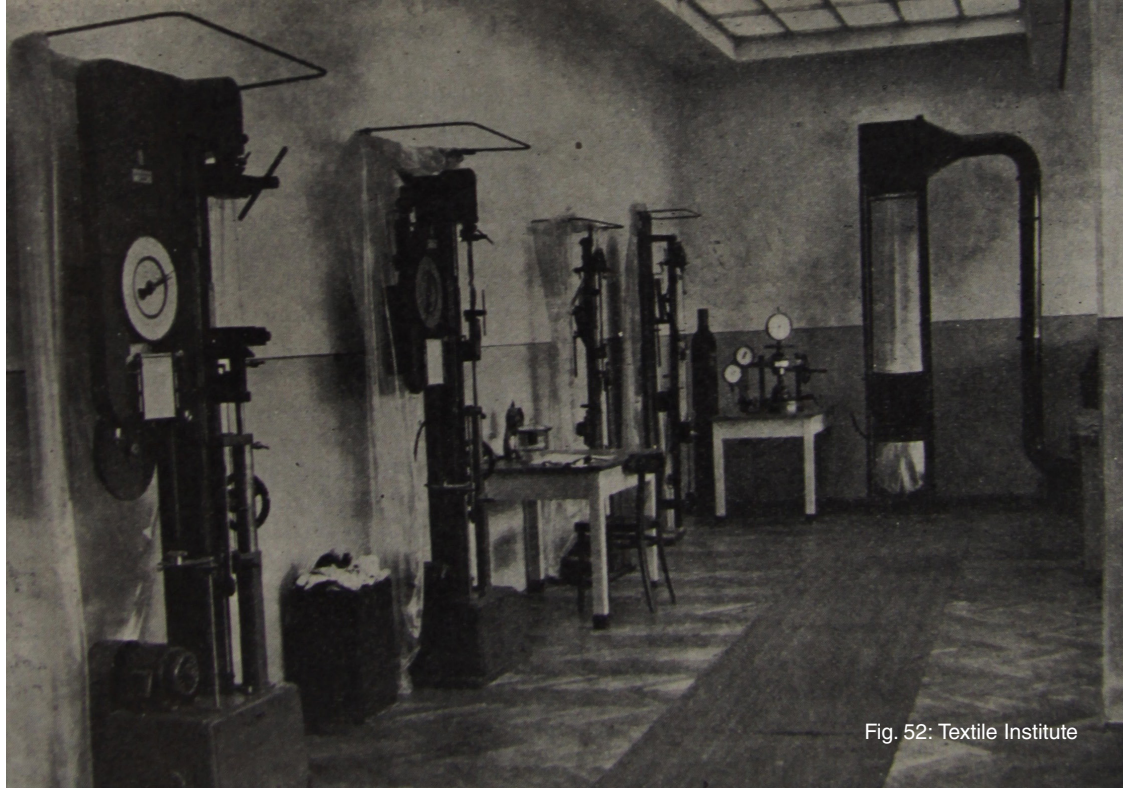


Fig. 52: Textile Institute

Fig. 53: Textile Institute

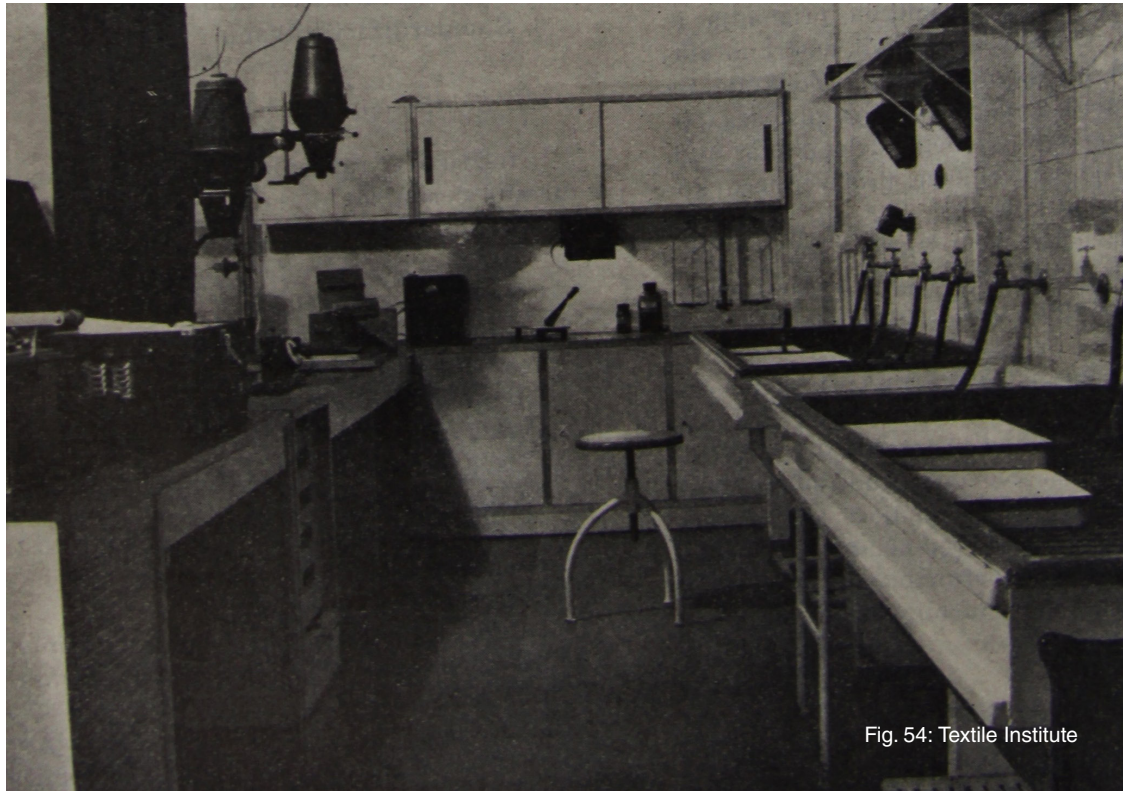


Fig. 54: Textile Institute

69 cf. Matjašič 2016, 42
70 cf. Matjašič 2016, 43
71 cf. Tekstilni inštitut, http://industrijskapespot.si/tekstilni-institut---opis.html, 13.5.2020
72 cf. Matjašič 2016, 43
73 cf. Matjašič 2016, 43
74 cf. Tekstilni inštitut, http://industrijskapespot.si/tekstilni-institut---opis.html, 13.5.2020

The Textile Institute

Maribor Textile Factory (MTT) in Melje was the largest textile factory in all of Yugoslavia and the first textile factory in Maribor and Slovenia to begin with the export of fabrics. After the World War II, there was a huge shortage of professionally tranied workers and the need for a high quality textile education became evident. For this reason, MTT founded Industrial Textile School in 1947. At first, the school held classes in Factory plant no. 2 of MTT, but they later moved them into the building, that would later become known as The Textile Institute. In 1949/50, Industrial Textile School separated from the MTT factory and became an independant educational institution. It was abolished in 1953, mainly because the Textile Institute moved into its premises.[69]

The Textile Institute was located on Kraljeviča Marka Street, in the immediate vicinity of the Maribor Textile Factory. The predecessor of the Textile Institute was founded in 1947, when the central directorate of the Yugoslav textile industry established the first Yugoslav central textile laboratory as a part of the MTT Factory in Maribor. It transformed into Tekstilni inštitut Maribor (The Textile Institute) in 1950, which moved into the building on Kraljeviča Marka Street in 1953, after the Textile School closed.[70]

The institute dealt with scientific study of technological, organisational and economic problems, important for the development of textile industry; standardisation and improvement, implementation of new technological procedures; professional counselling for textile companies; preparation of new projects and testing of materials.[71] The research work of Textile Institute focused mainly on yarn and fabrics made of cotton and man-made fibers. Plans for new textile factories and reconstructions of existing factories were also made in the textile institute.[72]

For a long time, The Texile Institute was the only research institution in Maribor. It quickly became a multidisciplinary institution and worked in fields, which were not directly related to textile, but represented developmental opportunities for the textile industry.[73] It collaborated with similar institutes around the world and many global manufacturers of textile equipment and materials, in order to introduce innovations from the field of textiles to Yugoslav textile industry.[74]

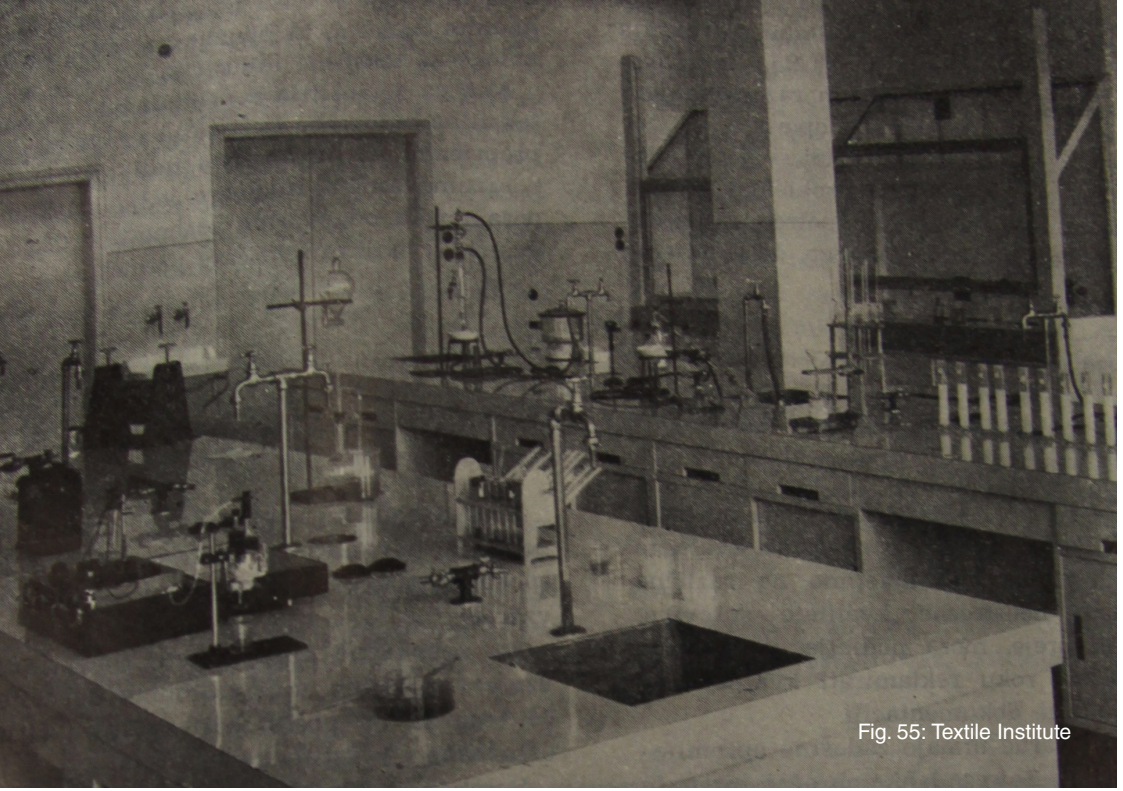


Fig. 55: Textile Institute

Fig. 56: Textile Institute

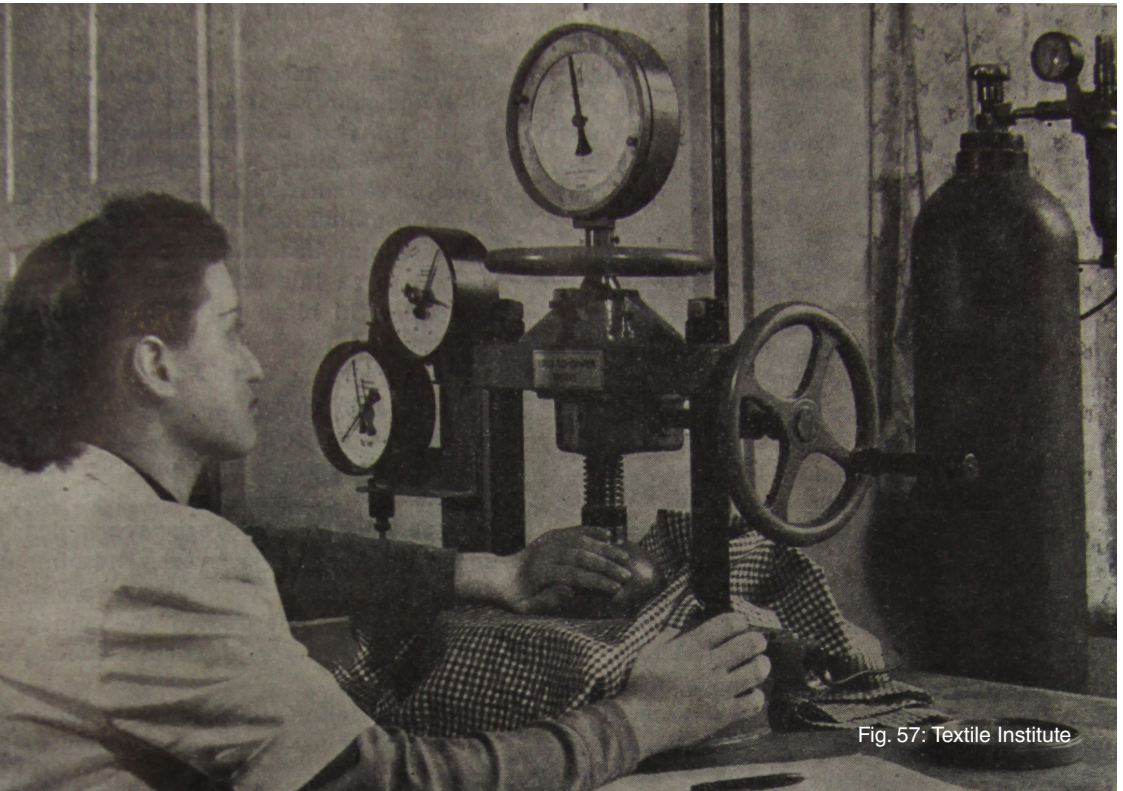


Fig. 57: Textile Institute

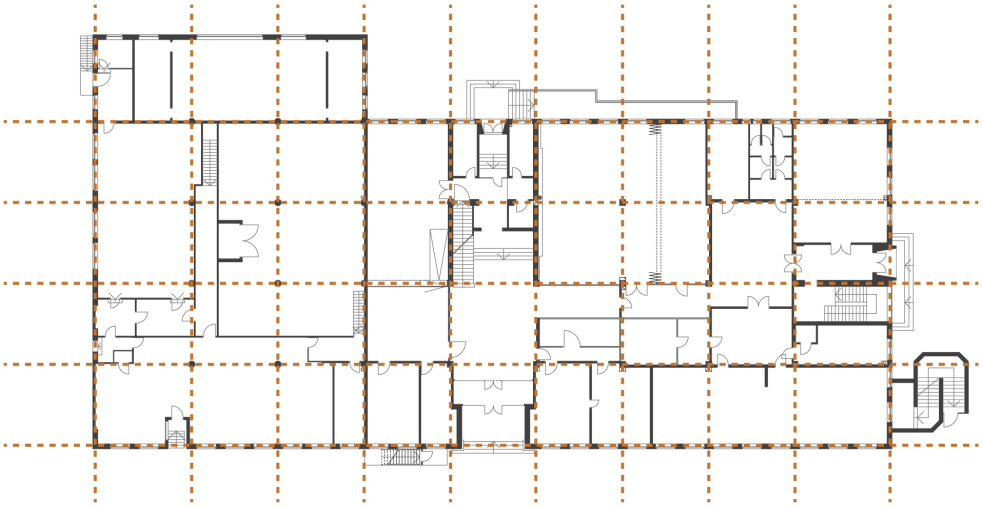
Fig. 58: Textile Institute

Gradual decline of the textile industry in Melje in the nineties marked the downfall of the Textile Institute. Since the closure of the institute, the building has been empty. The only exception was the Masai disco club, which ran in the basement of the building for a certain period of time in the early 2000s. On the 27th of December 2006, the government of the Republic of Slovenia decided to affilliate the Textile Institute Maribor to the Institute of Information Science as a result of illiquidity.[75]

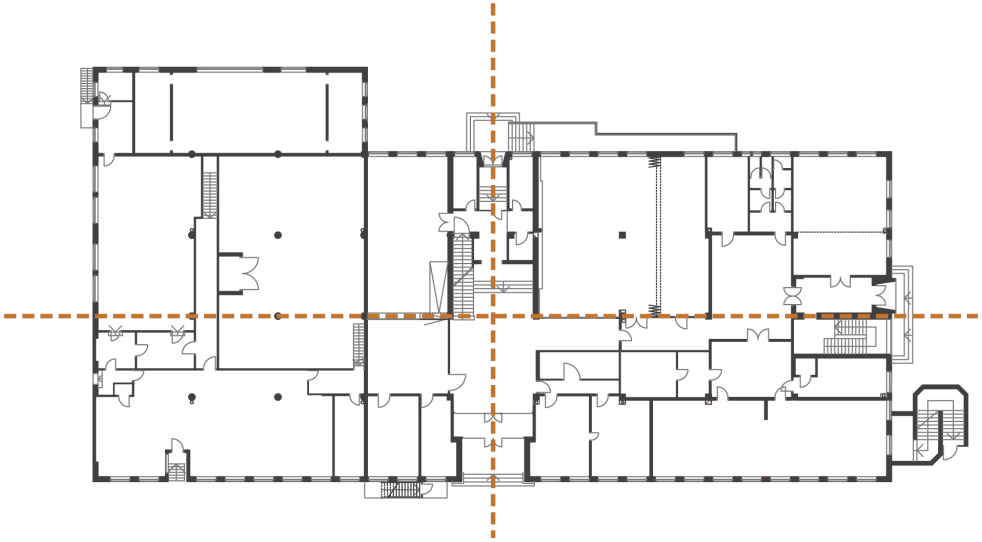
Today, the building stands abandoned. It is under the ownership of Ministry of Education, Science and Sport, however they have no use for it. The building has been put on auction for several years in a row, but for now, unsuccessfully. Since it hasn't been properly maintained in years, the building is in poor condition; several windows are broken, the colour of the facade has faded and the entrance is sealed.[76]

75 cf. Tekstilni inštitut, http://industrijskapespot.si/tekstilni-institut---opis.html, 13.5.2020

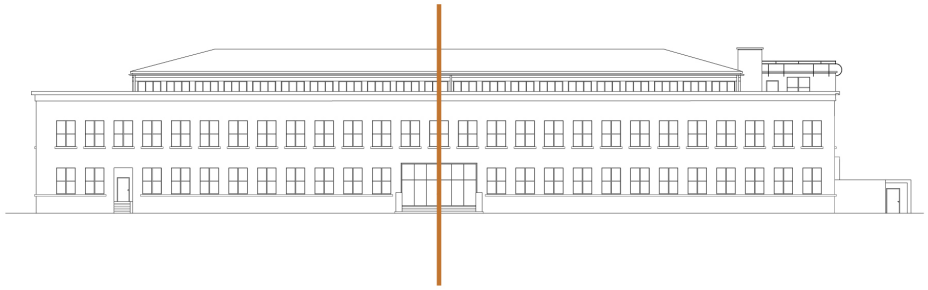
76 cf. Jaka Maučec: Nekoč legendarna stavba v Mariboru prepuščena propadu, ne želi si je nihče, 12.3.2018, https://mariborinfo.com/novica/lokalno/nekoc-legendarna-stavba-mariboru-prepuscena-propadu-ne-zeli-si-je-nihce/161531, 13.5.2020



STRICT GRID IN THE FLOORPLAN



SYMMETRY IN THE FLOORPLAN



SYMMETRY IN THE FRONT FACADE

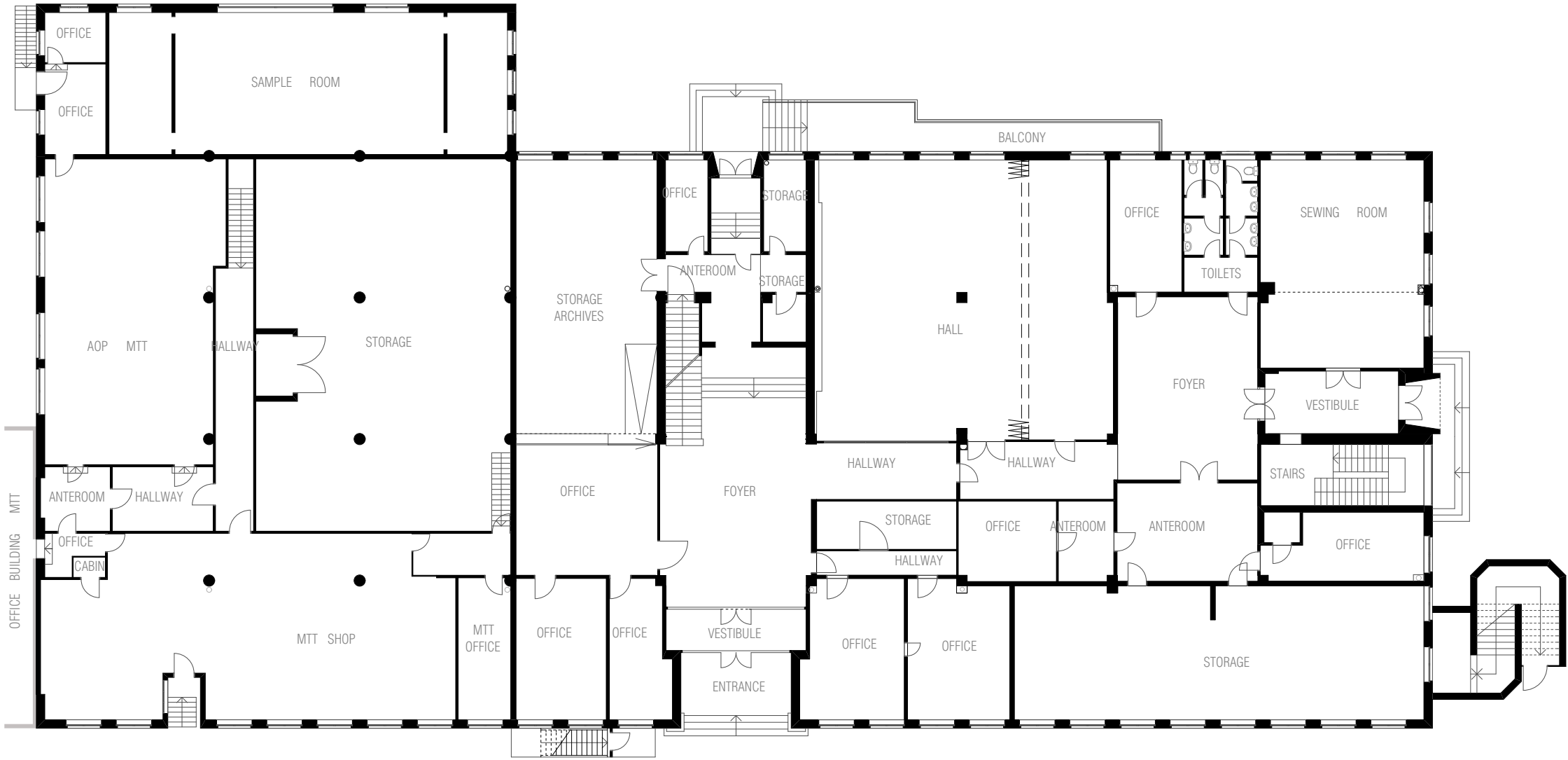
Analysis of the building

Textile Institute was constructed in 1941. The building itself has a classicist character due to its proportions. However, there is a strong modernist influence present as the building is stripped of all ornaments and almost puristic.

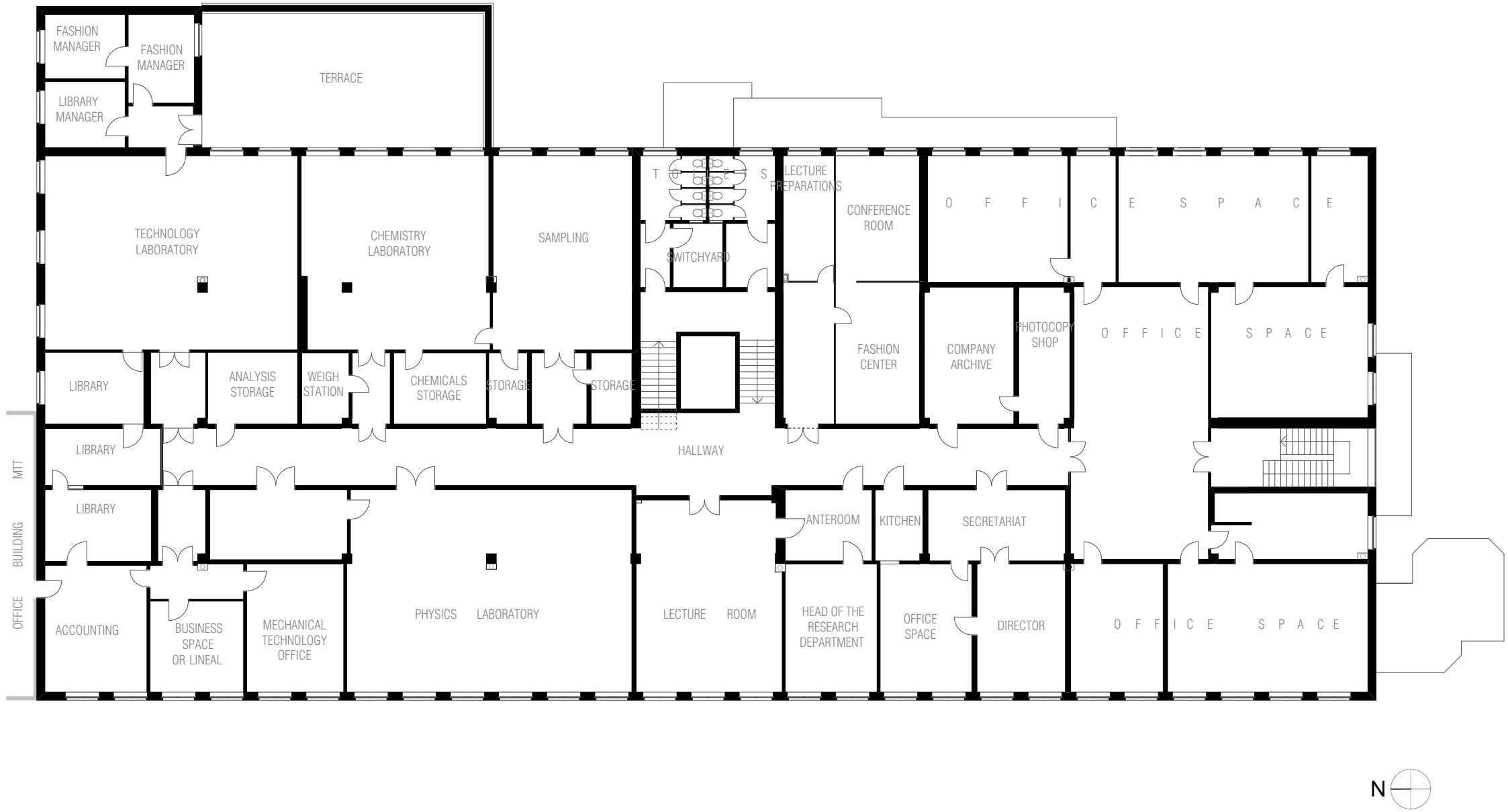
The building measures 66 meters in length and 27 meters in width. Floorplan has proportions of 2:1 and is rectangle shaped. There is a one story high addition on the east side of the building and a small volume, which contains the staircase, on the south. The building has the height of 10 meters in height and spans two stories. There is a rectangular volume with a gable roof running across the length of the building on the top, which serves to provide the upper floor with light.

Floorplans are based on a strict grid of 6,7 x 7,1 meters. The main vertical load-bearing element are columns, which are placed on the grid. There is a strong symmetry and order to the building, which can be observed in both the front facade and the floorplans. All openings in the front facade are same in size and distance from one another.

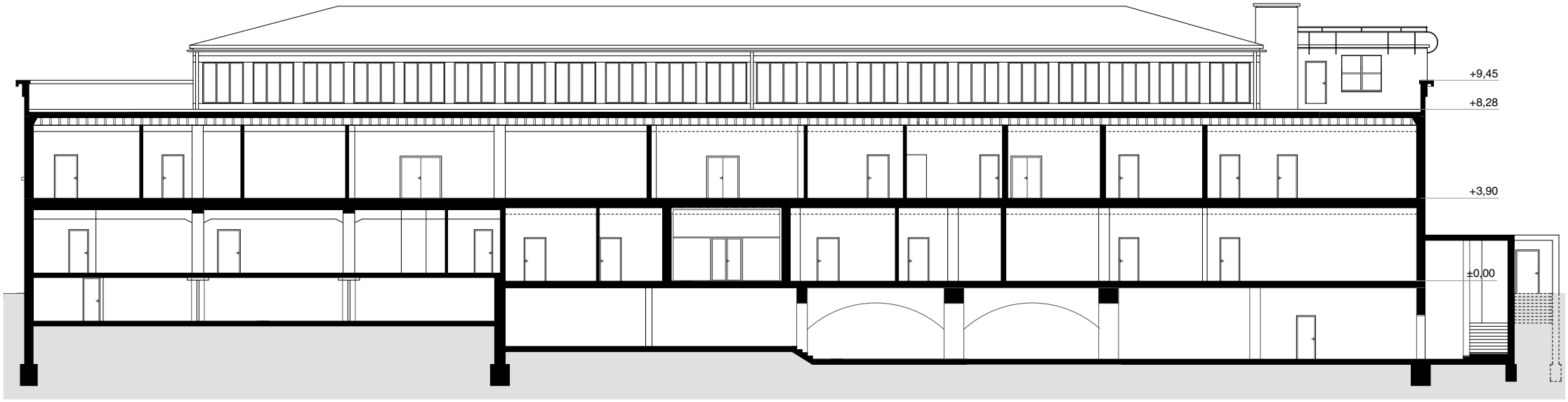
Textile Institute has a burnt orange facade, similar to the colour of the brick, same as the buildings of the former Maribor Textile Factory behind it. This serves to emphasize the unity of the buildings of the textile industry and indirectly the historical and industrial importance of the area. The main entrance is accentuated and pushed back into the building. It is higher than the street level and accessible through the stairs.


OFFICE
OFFICE
SAMPLE ROOM
BALCONY
OFFICE
STORAGE
OFFICE
SEWING ROOM
ANTEROOM
STORAGE
TOILETS
AOP MTT
HALLWAY
STORAGE
STORAGE ARCHIVES
HALL
FOYER
VESTIBULE
HALLWAY
HALLWAY
ANTEROOM
HALLWAY
OFFICE
FOYER
STAIRS
STORAGE
OFFICE
ANTEROOM
ANTEROOM
OFFICE
OFFICE
CABIN
HALLWAY
OFFICE BUILDING MTT
MTT SHOP
MTT OFFICE
OFFICE
OFFICE
VESTIBULE
OFFICE
OFFICE
STORAGE
ENTRANCE
N

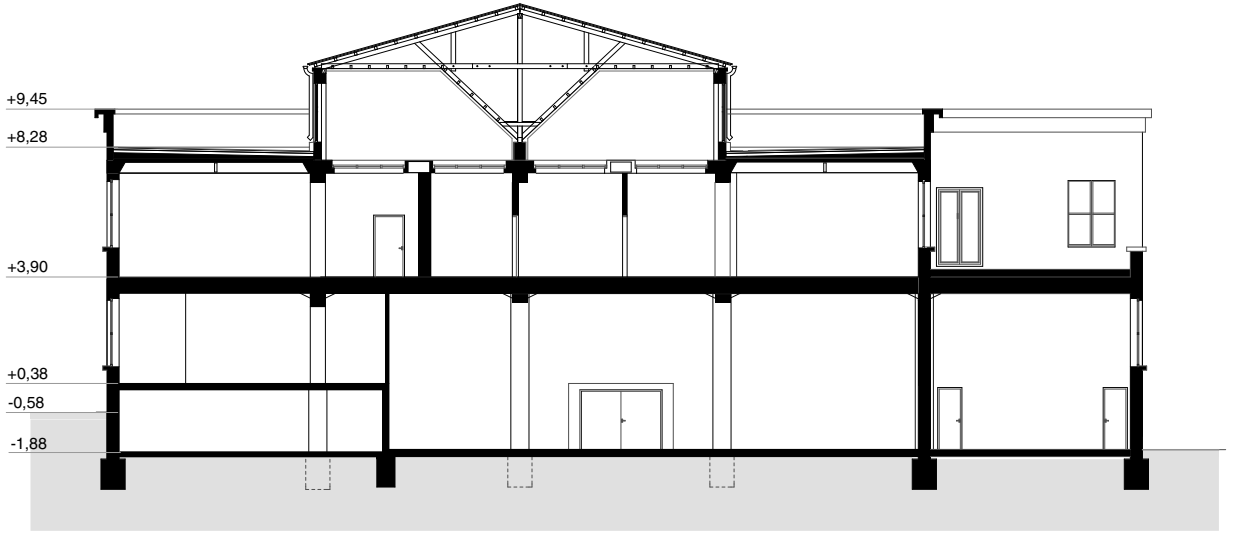
floorplan ground floor I M 1:250


FASHION MANAGER
FASHION MANAGER
LIBRARY MANAGER
TERRACE
TECHNOLOGY LABORATORY
CHEMISTRY LABORATORY
SAMPLING
T O I L E T S
LECTURE PREPARATIONS
CONFERENCE ROOM
O F F I C E S P A C E
SWITCHYARD
LIBRARY
ANALYSIS STORAGE
WEIGH STATION
CHEMICALS STORAGE
STORAGE
STORAGE
FASHION CENTER
COMPANY ARCHIVE
PHOTOCOPY SHOP
O F F I C E S P A C E
HALLWAY
LIBRARY
LIBRARY
ANTEROOM
KITCHEN
SECRETARIAT
MTT BUILDING OFFICE
ACCOUNTING
BUSINESS SPACE OR LINEAL
MECHANICAL TECHNOLOGY OFFICE
PHYSICS LABORATORY
LECTURE ROOM
HEAD OF THE RESEARCH DEPARTMENT
OFFICE SPACE
DIRECTOR
O F F I C E S P A C E
N

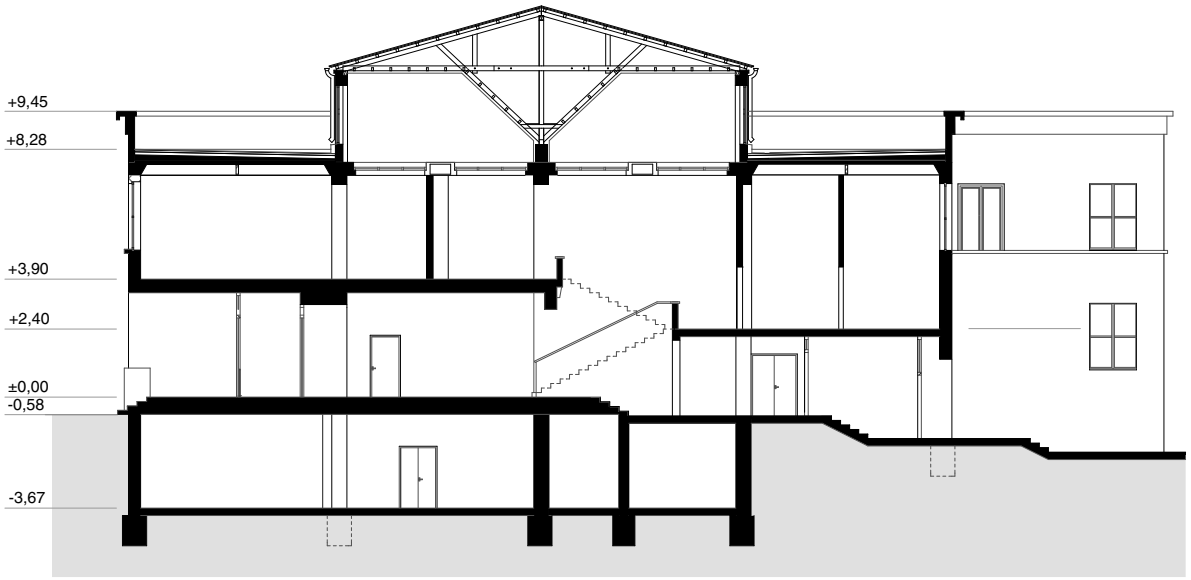
floorplan first floor I M 1:250


+9,45
+8,28
+3,90
±0,00

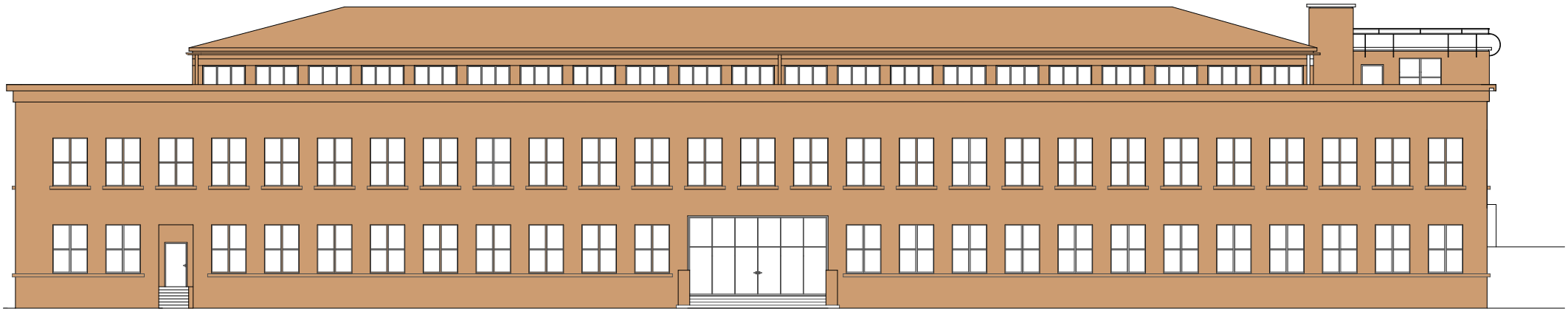
section A-A I M 1:250


+9,45
+8,28
+3,90
+0,38
-0,58
-1,88

section B-B I M 1:250


+9,45
+8,28
+3,90
+2,40
±0,00
-0,58
-3,67

section C-C I M 1:250



front view I M 1:250
west facade

back view I M 1:250
east facade

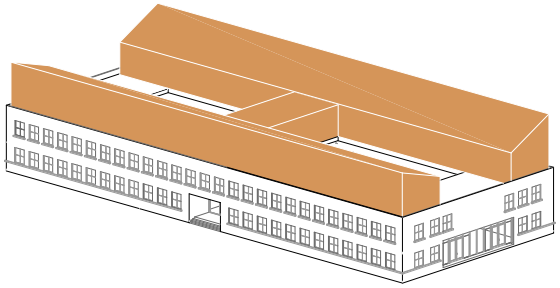
side view I M 1:250
south facade

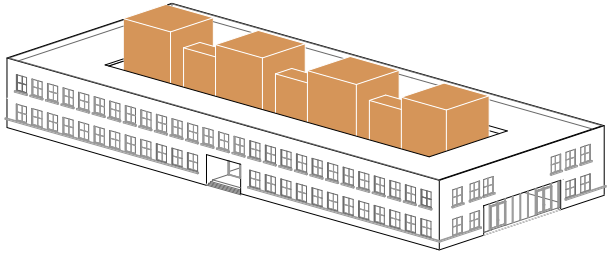

OFFICE BUILDING MTT

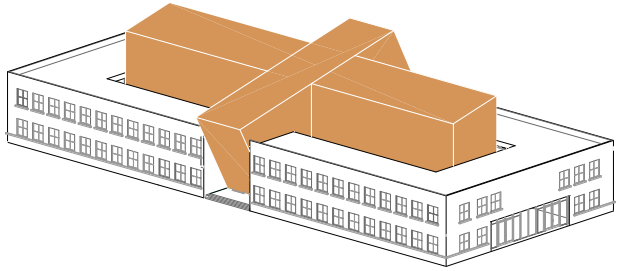
side view I M 1:250
north facade

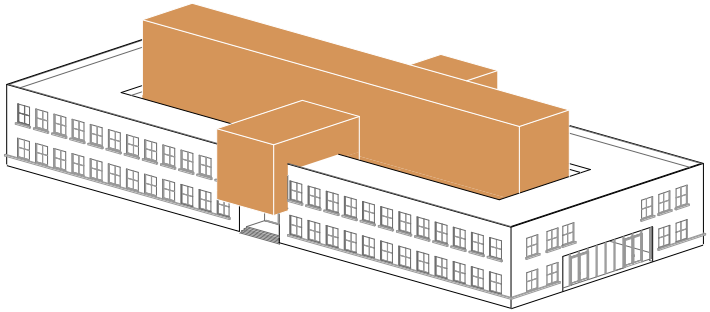
5 I concept

design process
structure
space
accessibility and direction
functions
interior
facade







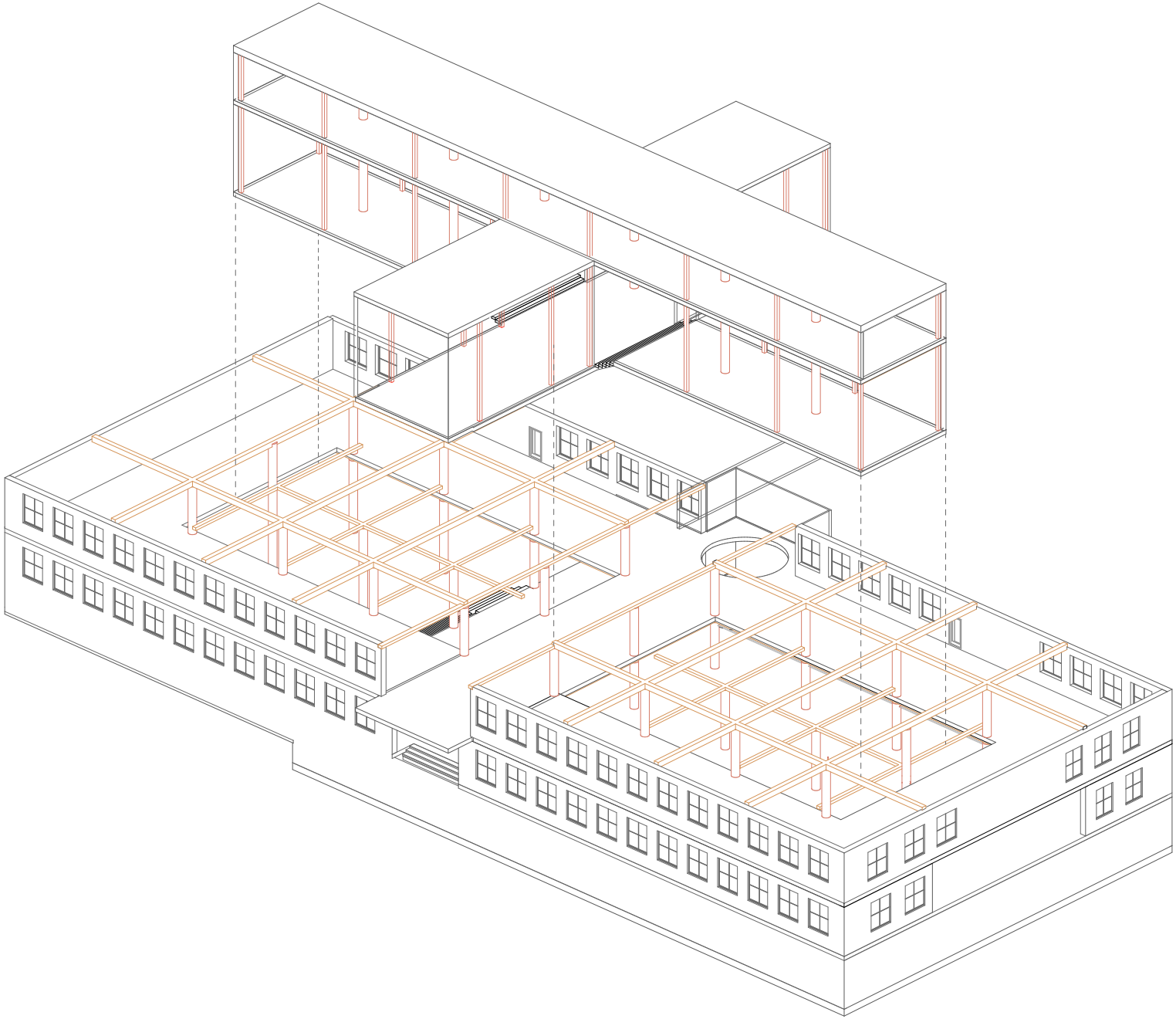


Design process

My main objective was to keep the original shell of the building. For that reason I aimed to create a form that will serve as an addition to the building but also complement the original structure.

Firstly, I played with creating various organic shapes on the roof, however through the design process I ended up with a strictly orthogonal design, which complements the modern design of the building and contrasts it through the choice of material. I then tried various placements for the new volume, for example on both sides of the roof, but decided on the central placement in the end.

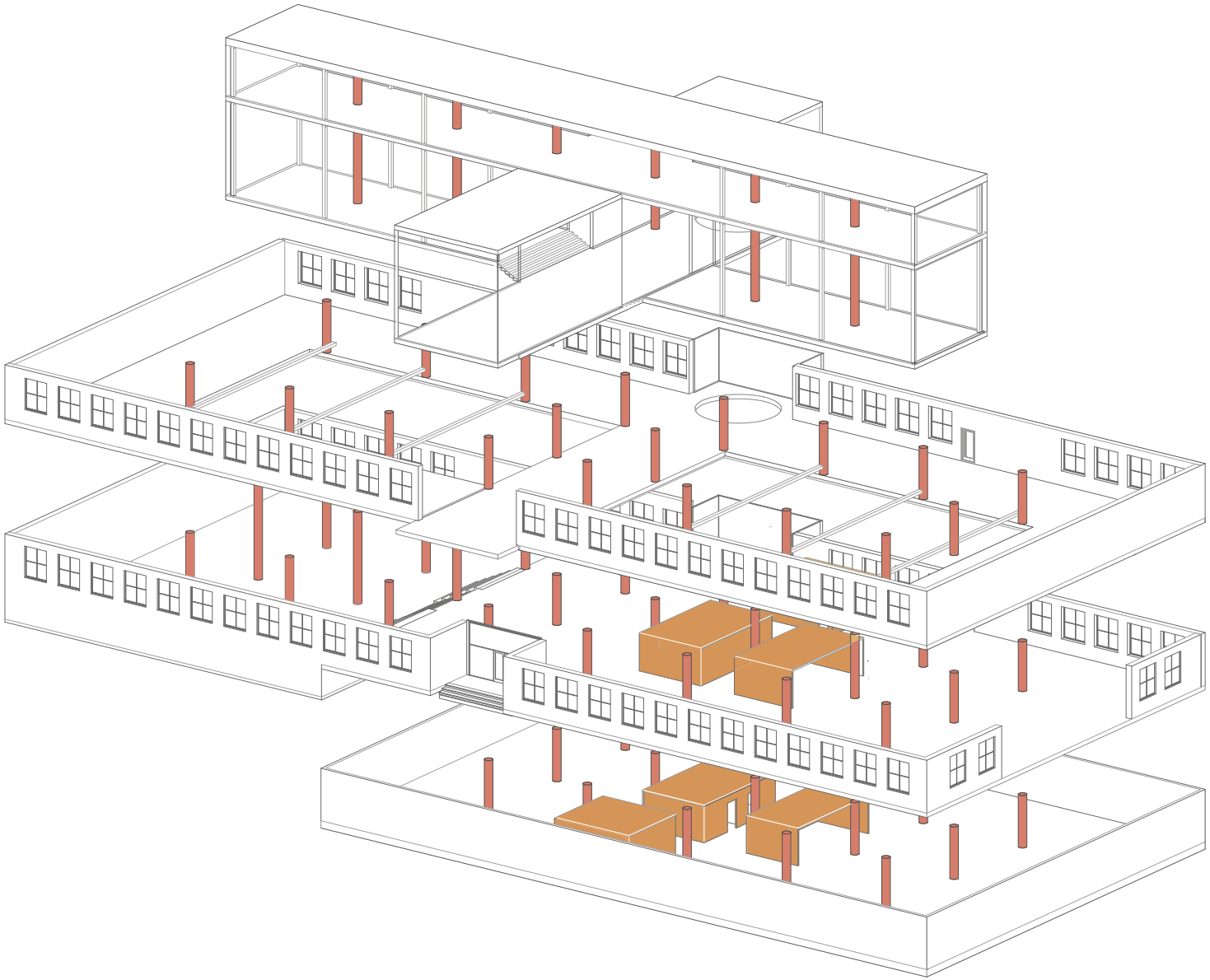
The building is penetrated with two new volumes, while still honouring the original structure and and the existing grid. One runs in the transverse direction and the other one in the longitudinal direction. This way the original form of the building is retained and emphasized, but simultaneously broken through. It is important that the new volume is clearly visible from the outside and the inside. This is why the perpendicular volume hovers over the main entrance, while the parallel volume is much higher than the roof of the existing building, in order to be noticeable from the street level.



Structure

Main vertical load-bearing elements are the exterior walls made of brick and concrete columns. The structure is based on a grid of 5 longitudinal axis and 10 transverse axis. Most inner walls have been demolished, and the only inner vertical elements retained from the original structure are the columns and walls in the basement. Existing columns are extended upwards to support the new addition. They measure 50 x 50 cm. All of the existing slabs are supported by concrete beams, which are positioned on the grid, and run parallel and perpendicular to the length of the building.

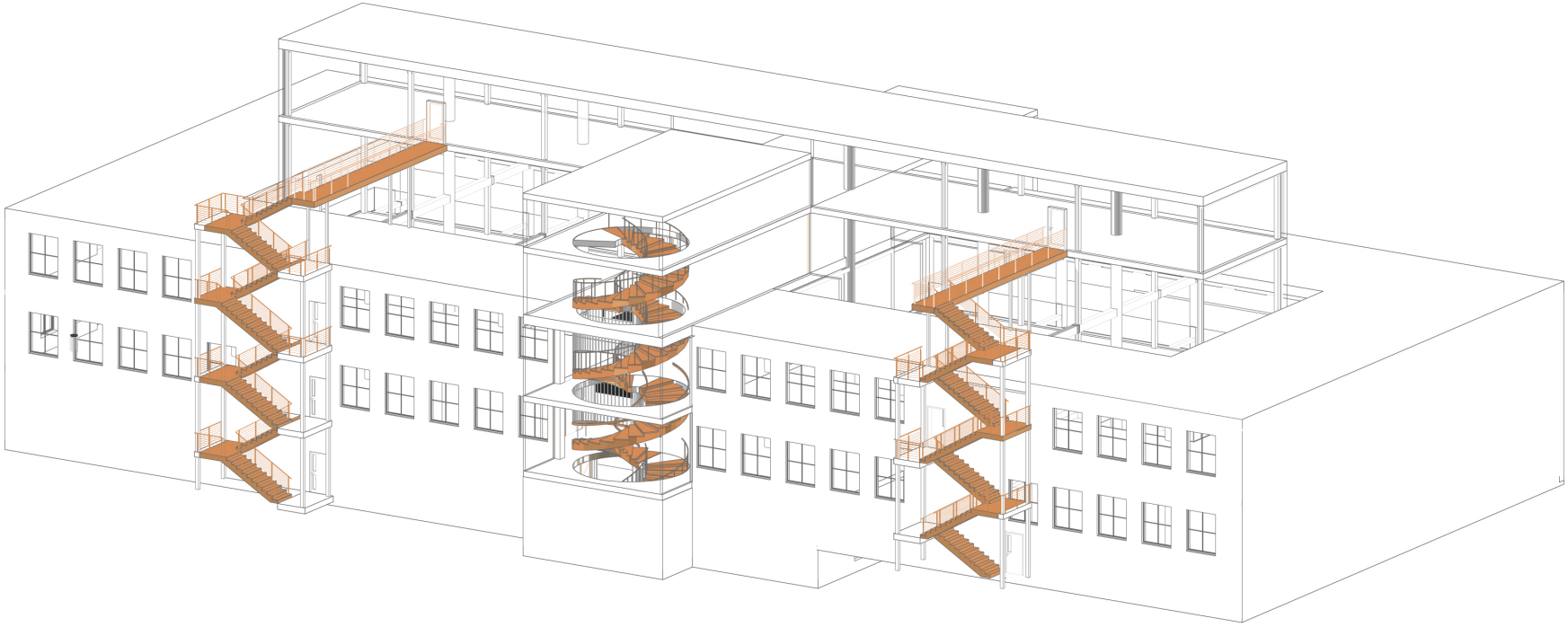
The new glass volumes are constructed with steel frame structure. Parallel glass volume that runs across the length of the building is supported by new concrete beams, that are attached onto existing columns 80 cm above the first floor level. Boxes containing various functions, such as café and information are not load-bearing. Walls bordering on exhibitions in the ground floor and those in the exhibiton area only serve as partition elements and are not load-bearing either.



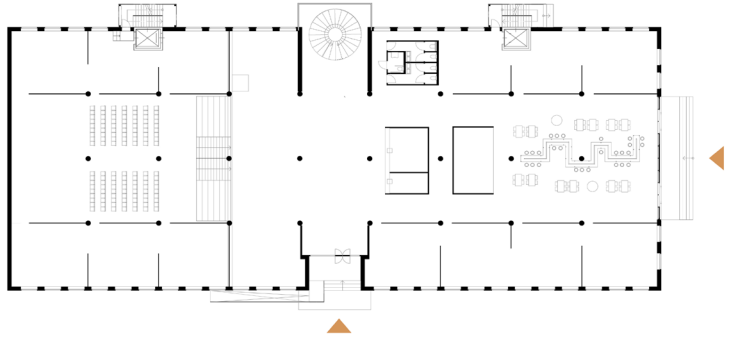
Space

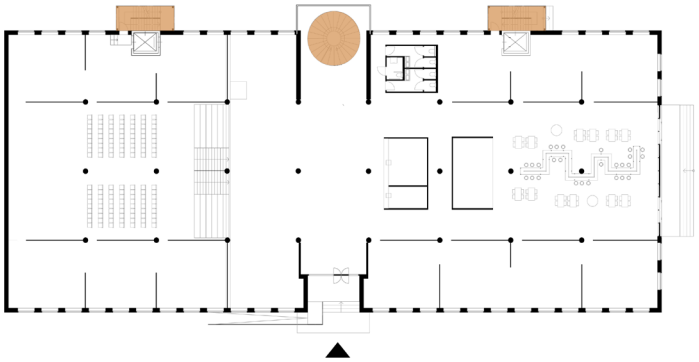
For the most part, original ceiling heights have been retained. However, to create a variety of experiences and perceptions of space, some rooms have different heights. They also point to the difference in use. Central longitudinal volume that cuts through the building and runs across the length of the building visually connects the outside with the inside and different levels of the building to one another. It hovers in the first floor and can be viewed from the ground floor, visibly floating above. It is purposely raised one meter above the first floor to create a distinction between the surrounding exhibition space and the central workshop/runway area.

Columns are the only defining architectural element. This creates a very clean and open space and contributes to the flexibility of use. It is important that the view throughout the entire building is maintained, regardless of where one stands. Some functions (café, information, toilets) are contained in boxes, which are lower than the ceiling height, to not disturb the clarity and unity of the space. Exhibition areas in the ground floor are divided from central areas through partition walls, which can be rolled up to unify the space or rolled down to divide it.



Accessibility and circulation

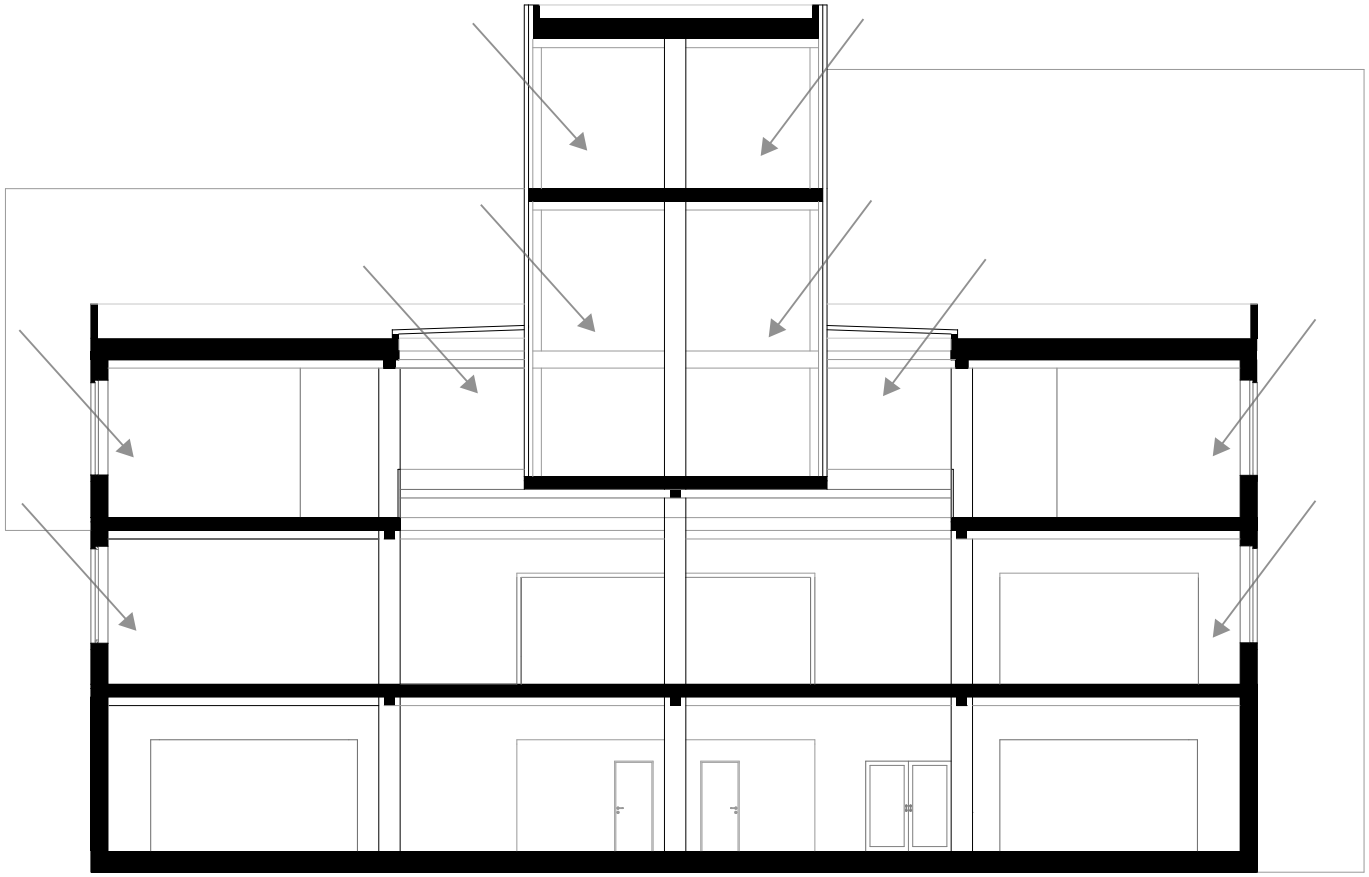




The existing main entrance located on Kraljeviča Marka Street is preserved. It is central and very prominent. However, a ramp has been added on the side of the exterior stairs, to make the entrance accesible for wheelchair users. There is a new side entrance on the south side of the building that serves as entrance for the café.

All vertical connections are located on the east side of the building. The main staircase that connects all the floors is the spiral stairway in the center. In order to be more inviting it is open and does not serve as fire escape staircase. There are two open fire escape staircases attached to the back of the building, one to the left and the other to the right of the central stairway. There are elevators on the inner side of the fire escape staircases that connect all the floors, providing accessibility for wheelchair users. The fire escape stairs and the elevators are connected to the rooftop addition via a bridge.

Upon entering one can either go straightforward to the stairway to access the main exhibition area and upper floors, or to the left or right. In the first floor, the visitor follows a circular path through the exhibition, which is formed around the central glass volume. In the upper floors, circulation is always straightforward and linear.

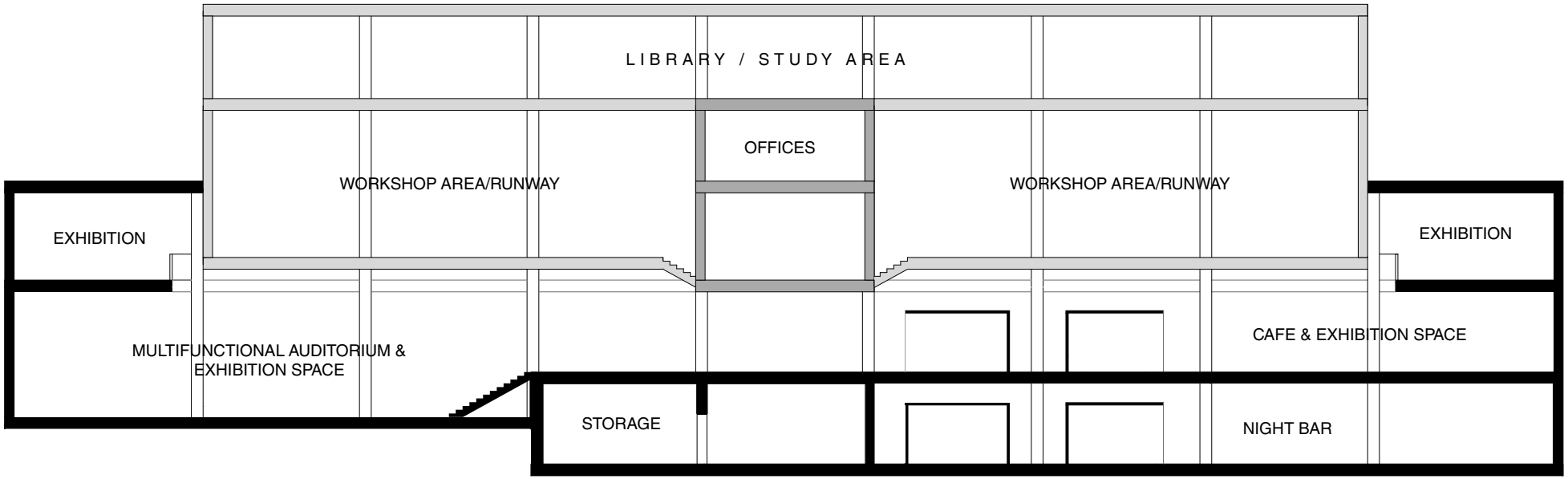


Light

The long axis of the building is oriented east and west. Primary source of light is natural sunlight, which comes through multiple same sized openings on the front, back and the south facade. Central part of the south facade in the ground floor is glazed, offering the café the view to the right bank of Maribor. There is additional fixed glazing on the roof, which runs across the length of the building, on both sides of the new glass volume.

Because direct sunlight is not optimal for the exhibitions, all windows bordering on exhibition spaces are covered with shutters, which are placed in the plane of the wall in order to effortlessly blend into the surface of the wall. Roof glazing provides exhibition area with indirect light. Track lightning system is also used in the exhibition areas as an additional light source.

The library in the upper floor and the offices get direct sunlight, because they are contained in the glass volume. Glass is triple glazed to reduce solar heat gain. There is an option of placing sun shades on the exterior side of the glass volume. The basement area that contains the night club and storage has no source of natural sunlight, because artificial light is adequate for those specific uses.


LIBRARY / STUDY AREA
OFFICES
WORKSHOP AREA/RUNWAY
WORKSHOP AREA/RUNWAY
EXHIBITION
EXHIBITION
MULTIFUNCTIONAL AUDITORIUM &
EXHIBITION SPACE
CAFE & EXHIBITION SPACE
STORAGE
NIGHT BAR

Functions

Ground floor

Upon entering, the visitor finds himself in a large foyer. At the end of the foyer is the circular stairway that leads to the upper floors. Information box with an adjacent wardrobe is located to the right of the foyer. The entire right wing of the building is devoted to a café, that overlooks river Drava. Central element of the café is a longitudinal bar table, which runs around the columns. Additional exhibition spaces are placed on both sides of the café. They are separated with textile partition walls, which can be rolled up or down to create a separation from the exhibition or up if the central area needs to be expanded in order to create more space. Multifunctional hall to the left of the foyer, which is accessible through wide stairs, offers a variety of uses. It can be used for events, lectures or as a clothing swap market. It can also be used for larger exhibitions and installations that require a bigger ceiling height. A shop, carrying books on the history of the textile industry and clothes from local fashion designers, is located at the entrance to the hall.

First floor

First floor is dedicated to the exhibition of the history of the textile industry. Exhibition follows a circular path. Central volume is raised one meter above the floor level. It can be used for various activities, for example textile workshops or as an additional exhibition space. It can also be converted into a runway for the models with surrounding exhibition spaces serving as a viewing platform.

Second floor

Second floor is located in the perpendicular glass volume. Inside, offices for six employees are located. At the end of the hall, the space opens into a meeting room, which extends outwards and overlooks the main street.

Third floor

There is an open library upon entering. To the right and left are study spaces. There is a designated lounge area at the end points on the both sides. The one on the south side offers a nice view to the river Drava and the right bank of the city.

Basement

Night bar is located in the south part of the basement. It contains recreational area with pool tables and table football and expands into a night bar with a lot of sitting spaces and a large dancefloor. North part of the basement is dedicated to storage area and technical room.

POLISHED CONCRETE
used for flooring in the new addition

OAK FLOORING
used for flooring in the exhibition spaces, in the café and in the auditorium

WHITE PAINT
used for all the interior walls

BLACK LAMINATE BOARDS
used sparingly as an emphasizing element

Interior

The use of material is reduced to only four different colours and materials. It is important that the inside of the building is mostly white and grey in order to contrast the rough, burnt orange exterior of the building. The two main shades are white and grey, while the colour of wood and black paint is used as an emphasizing element.

Flooring
Industrial parquet is used for the flooring in order to bring some warmth and add some contrast to the mostly white and grey surfaces. It has the advantage of being affordable and very resistant, which makes it perfect for a public building. For the central volumes polished concrete is used, in order to emphasize the distinction between the old building and the new intervention. In the basement, the floor is made of polished concrete. Industrial parquet is used only for the dancefloor.

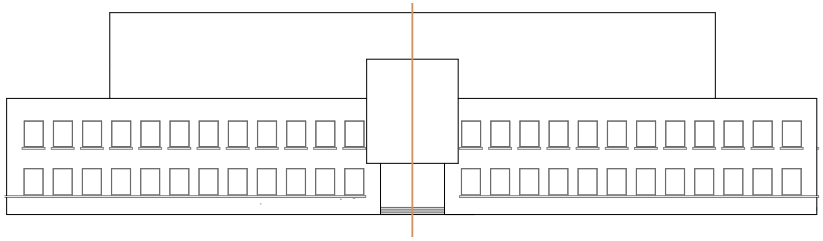
Walls
The insides of the exterior walls are painted white. The whiteness of the walls serves to visually expand the space and communicate the clarity and openess of the space. The boxes with specific functions (information, toilets, bar) are constructed with black laminate multi bonded boards to contrast the whiteness of the surroundings. The walls bordering on the exhibition space on both sides of the café and multipurpose hall are made of white textile partition walls that can be rolled up or down, depending on the need. Walls carrying artworks in the first floor are not load-bearing and are constructed with two gypsum plaster boards that is supported by wood construction inbetween. The two additional volumes are entirely glazed, to add element of ethereality and transparency. They are supported by steel frame structure and aluminum profiles.

Structure
Structural elements - existing columns and the supporting beams are made of concrete. They are painted white in order to blend into the surroundings and not disturb the clarity of the space. It is important that the parallel voulme that cuts through the building looks as if it is floating in the space, above the ground floor.

Furniture
The long custom made bar table in the café is made of prefabricated concrete. Chairs are made of wood. Clothing hangers in the shop are made with black aluminium rods, which can be flexibly put together, according to the need. Bookshelves in the library are white, as to not be visually heavy and disturb the lightness and ethereality of the glass.

CONNECTION TO THE INDUSTRIAL PAST

TRANSPARENCY AND MODERNITY



CLARITY OF FORM AND SYMMETRY

Facade

Facade retains the original look. The color used is the same as the existing - burnt orange, to connect to the surrounding buildings of textile factory and respect the identity of the place and the textile industry. Existing windows are replaced with new windows with aluminium profiles. Central windows in the front facade are removed in order to make place for the new intervention. Windows in the north facade are walled up.

The only intervention visible from the outside are the two volumes. The first one is hovering over the main entrance, which additionaly emphasizes the strict symmetry and the entrance to the building. The second volume that runs longitudinally across the building is higher than the roof in order to be visible from the outside and offer views from the inside to the river and the right bank of Maribor.

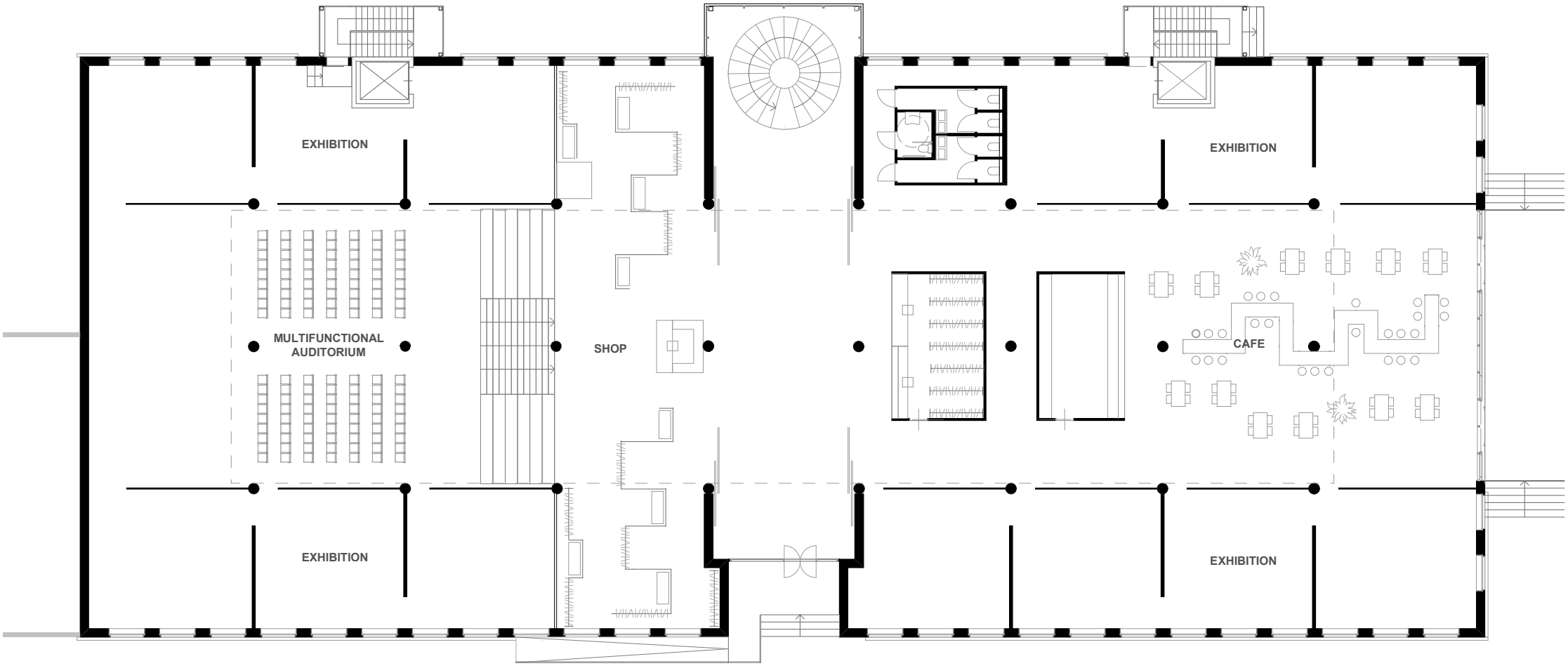
Both new volumes are made of glass in order to contrast the rough exterior of the existing building and create a more ethereal feeling. The appearance of the rear facade is influenced by two external fire escape staircases positioned on either side of the facade, which act as strong vertical elements. They are made of steel to compliment the industrial vibe of the surrounding buildings.

6 I plans

situation
floorplans
sections
views
visualizations

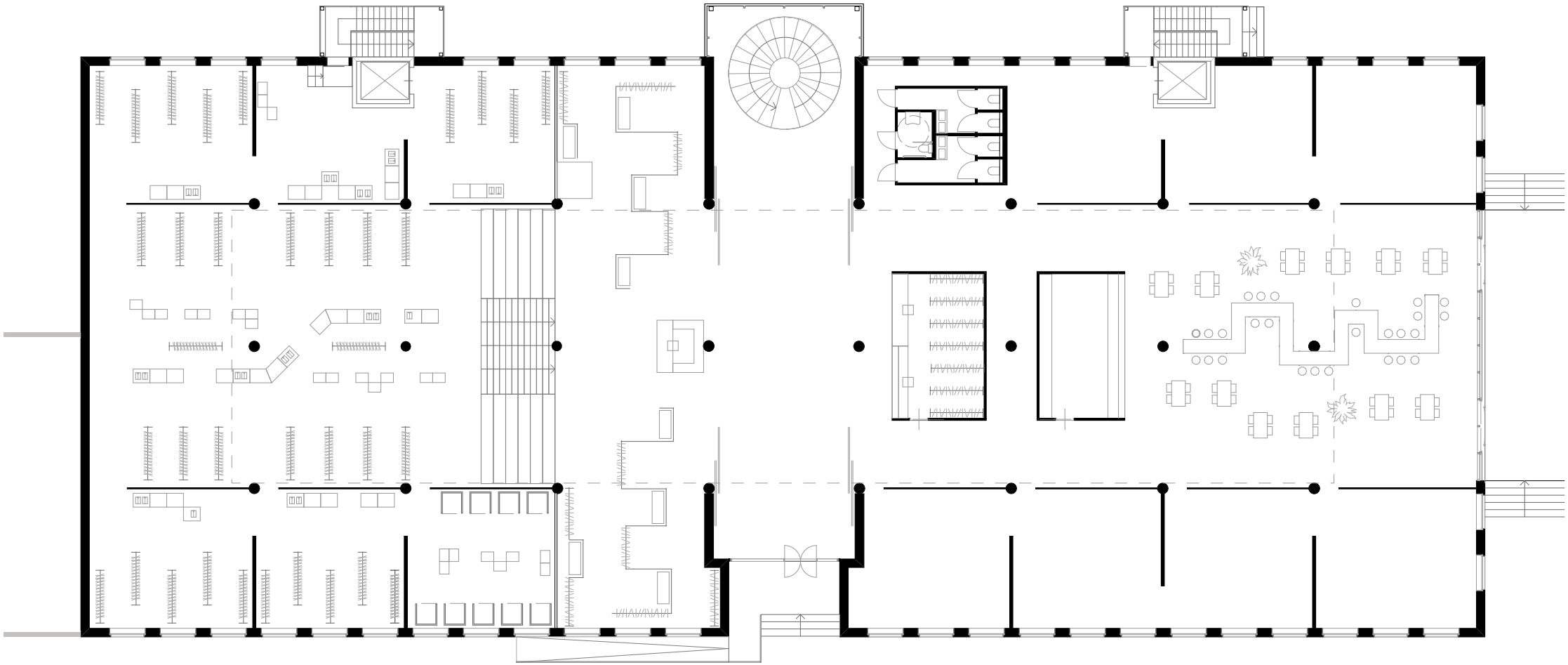

N

situation I M 1:1000


EXHIBITION
EXHIBITION
MULTIFUNCTIONAL AUDITORIUM
SHOP
CAFE
EXHIBITION
EXHIBITION
N

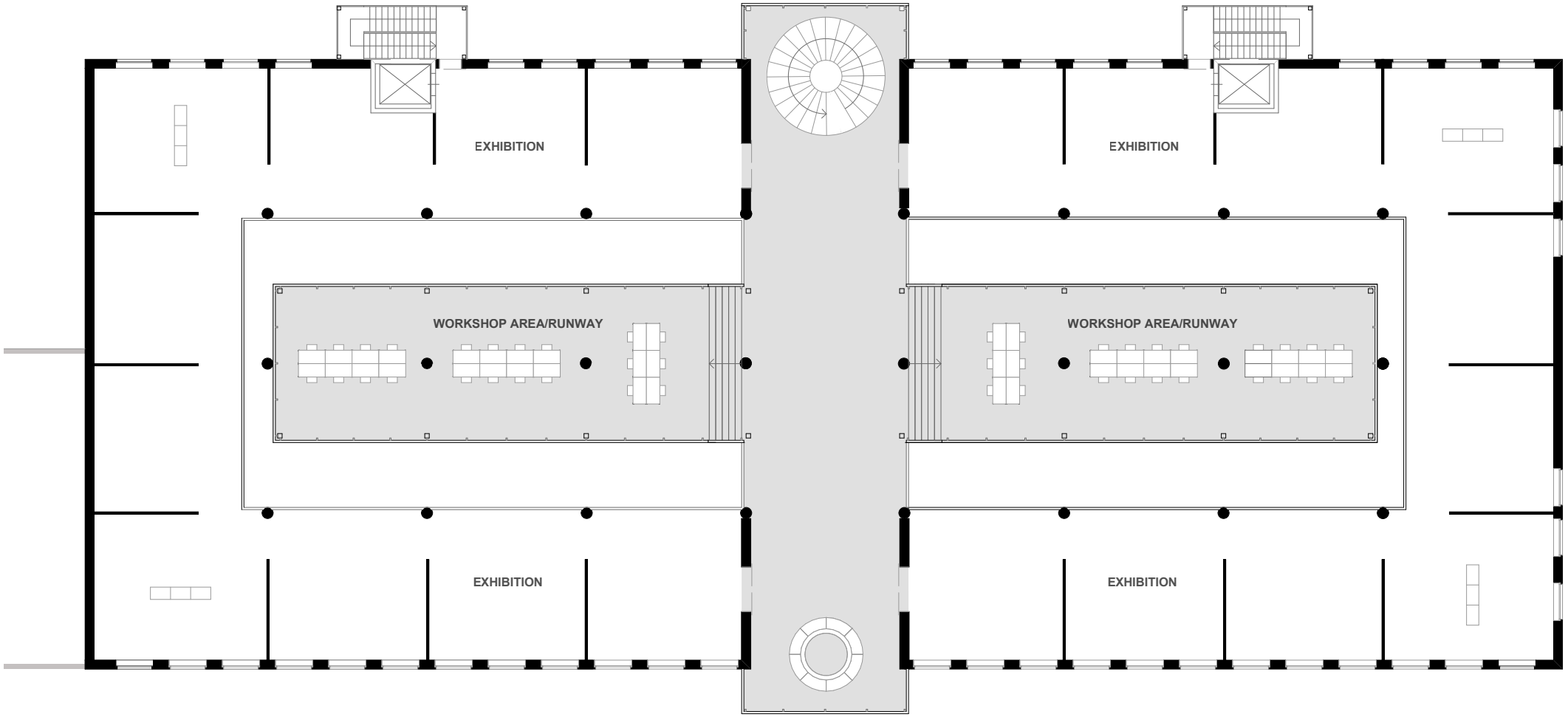
floorplan ground floor I M 1:250

foyer	152,5 m²
multifunctional auditorium	245,2 m²
exhibition space	620,0 m²
shop	178,9 m²
cafe	290,0 m²
toilets	22,1 m²


N

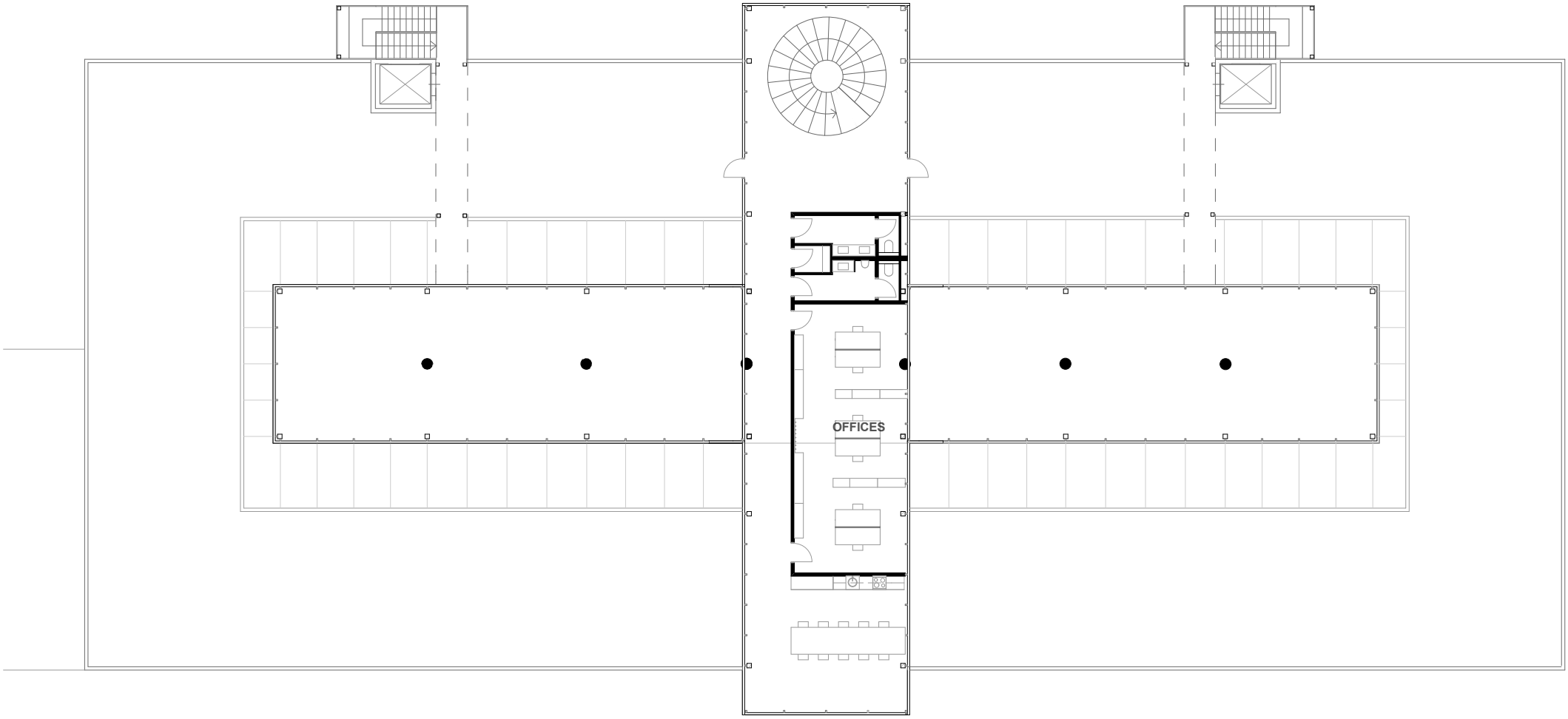
floorplan ground floor I M 1:250
alternate version

clothes swap market in the multifunctional auditiorium


EXHIBITION
EXHIBITION
WORKSHOP AREA/RUNWAY
WORKSHOP AREA/RUNWAY
EXHIBITION
EXHIBITION
N

floorplan first floor I M 1:250

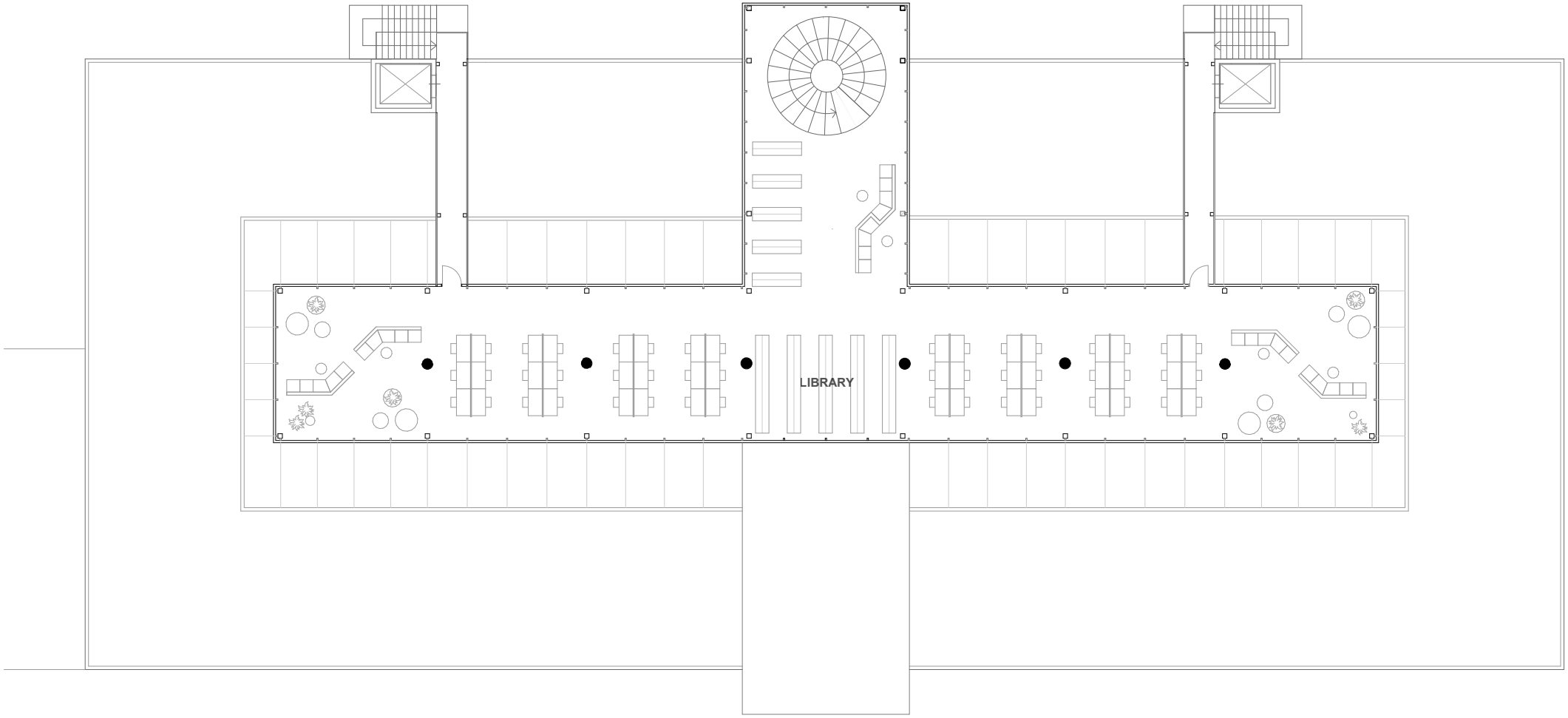
exhibition space	940,7 m^2
workshop area I runway	266,7 m^2
hallway	203,6 m^2



N

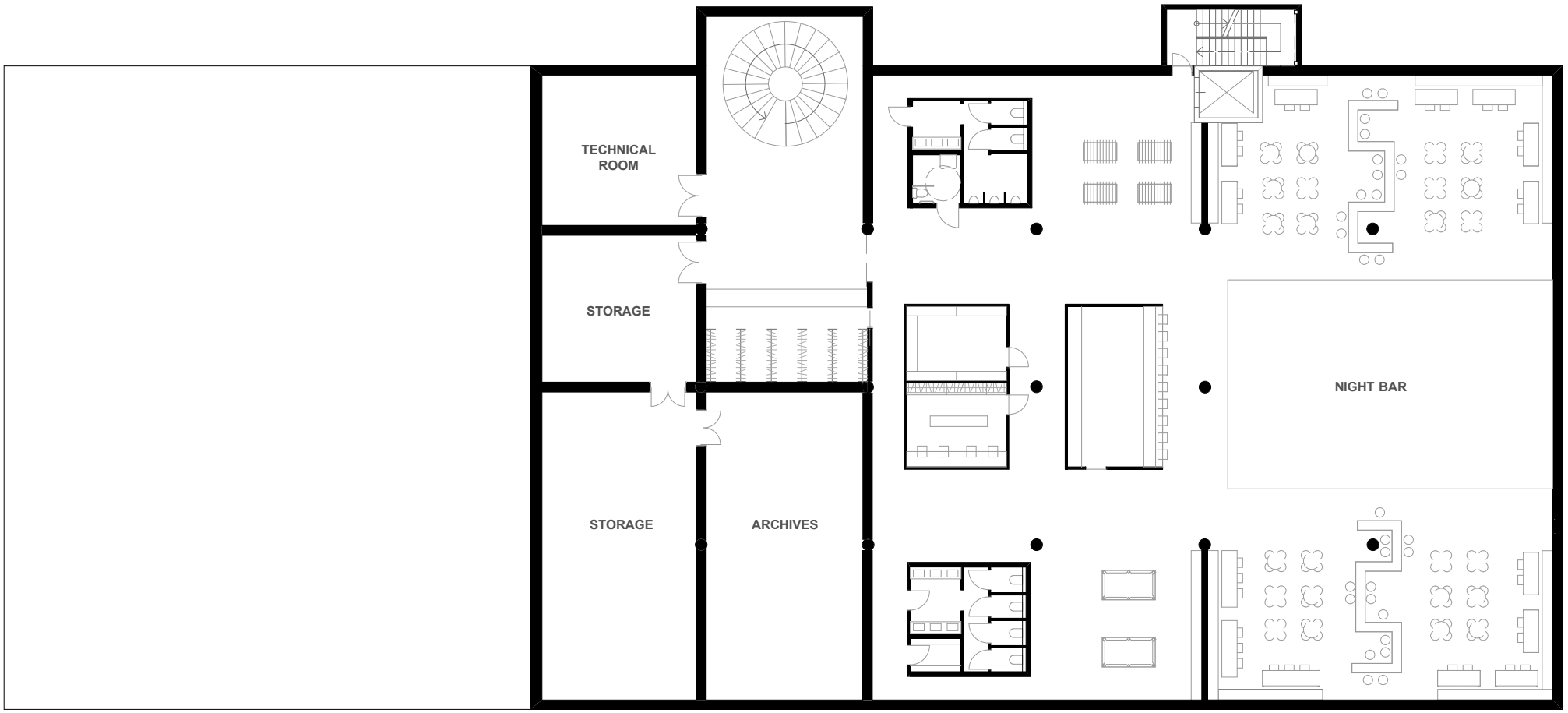
floorplan second floor I M 1:250

offices	52,1 m^2
meeting room I kitchen	40,5 m^2
toilets	19,2 m^2


LIBRARY
N

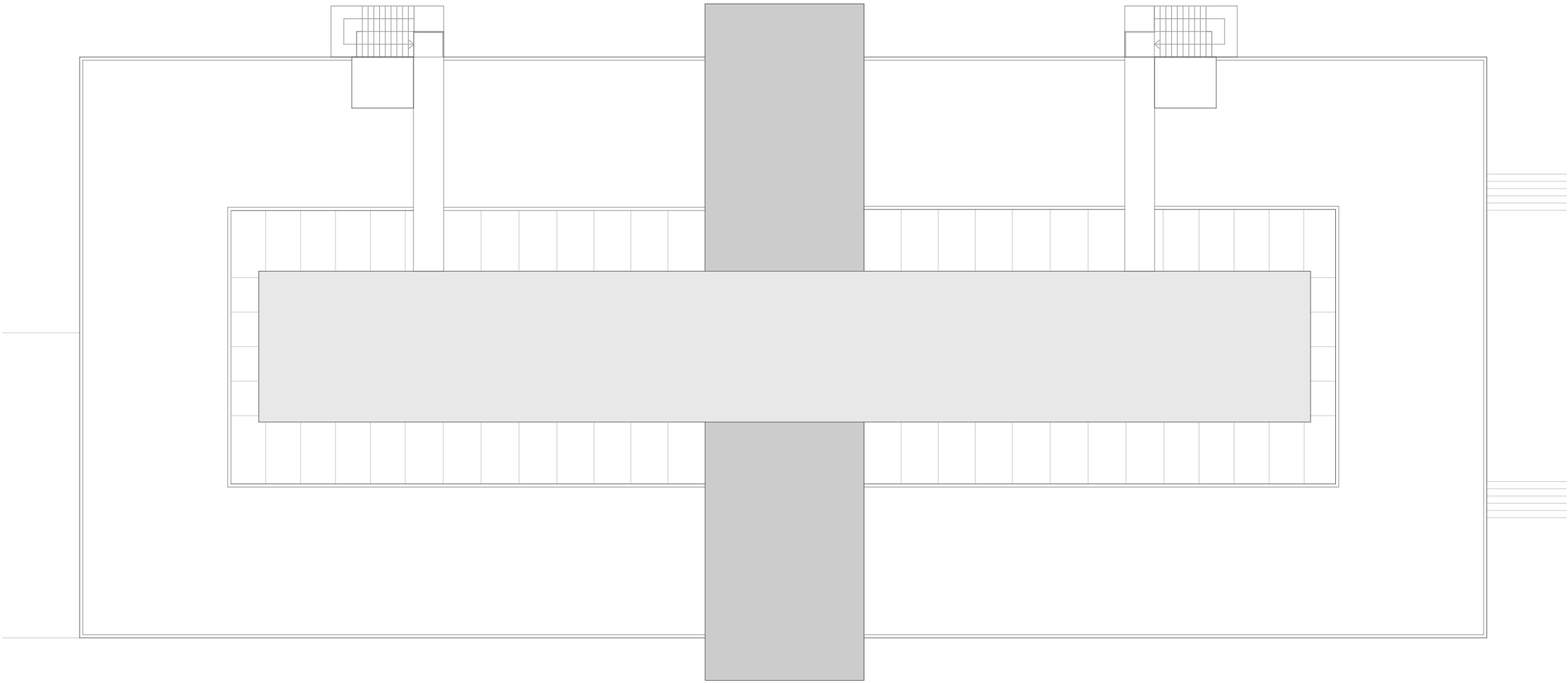
floorplan third floor I M 1:250

library	123,0 m^2
study area	193,8 m^2
lounge	93,4 m^2

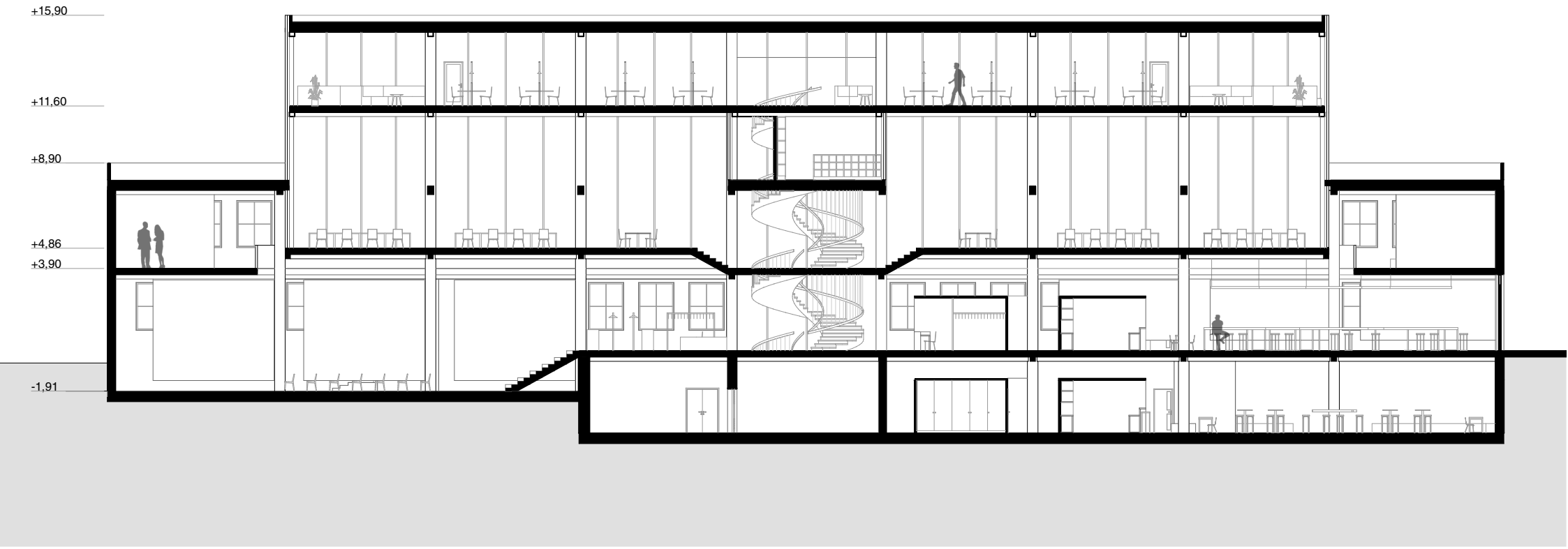

TECHNICAL ROOM
STORAGE
STORAGE
ARCHIVES
NIGHT BAR
N

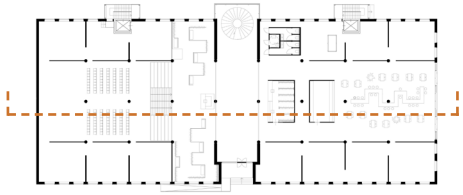
floorplan basement I M 1:250

night bar	680,0 m²
warderobe	27,0 m²
employees	28,7 m²
toilets	40,0 m²
archives	87,0 m²
storage	126,4 m²
technical room	41,4 m²
hallway	55,3 m²

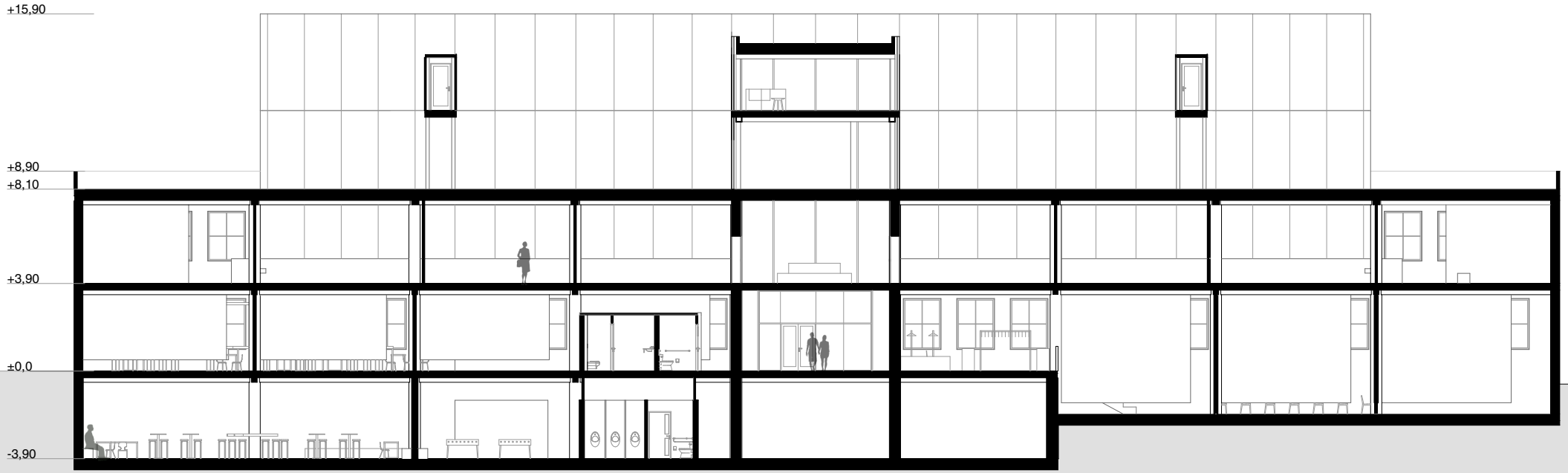

N

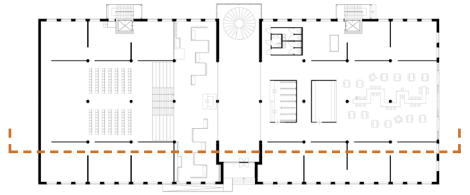
top view I M 1:250


+15,90
+11,60
+8,90
+4,86
+3,90
-1,91

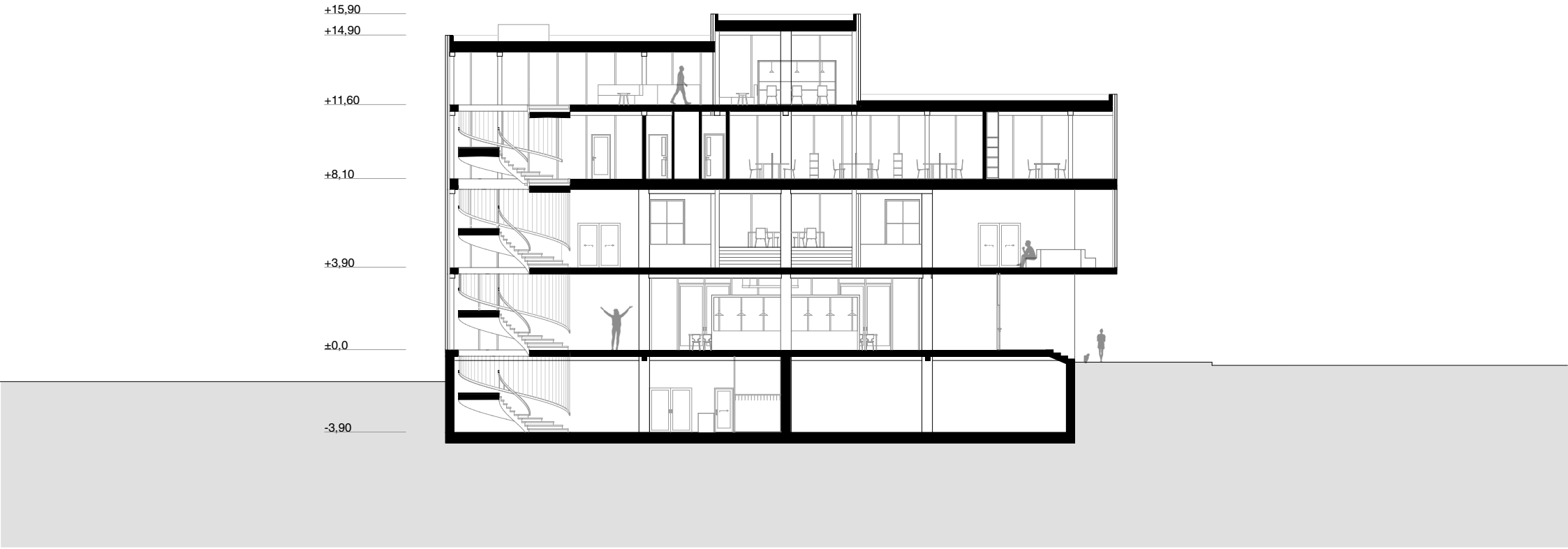


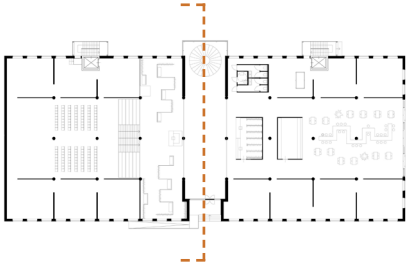
section A-A I M 1:250


+15,90
+8,90
+8,10
+3,90
±0,0
-3,90



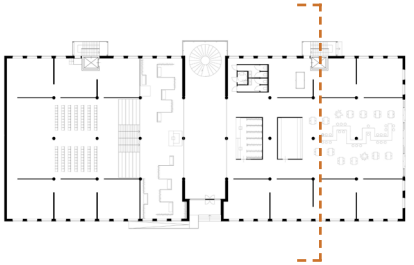
section B-B I M 1:250


+15,90
+14,90
+11,60
+8,10
+3,90
±0,0
-3,90



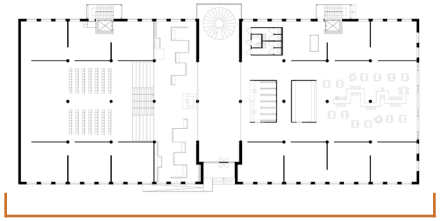
section C-C I M 1:250


+15,90
+12,10
+8,90
+3,90
±0,0
-0,58
-3,90

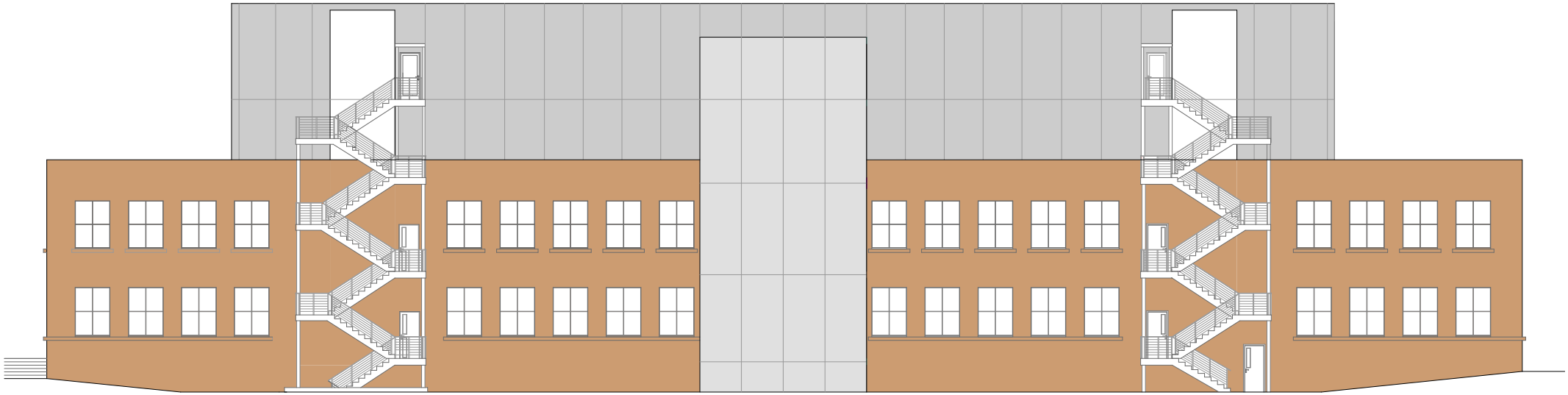


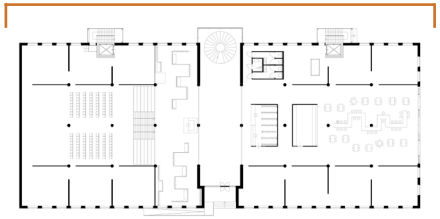
section D-D I M 1:250


TEKSTILNI INSTITUT

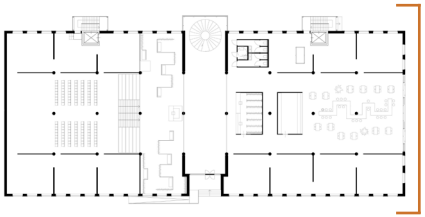


front view I M 1:250
west facade

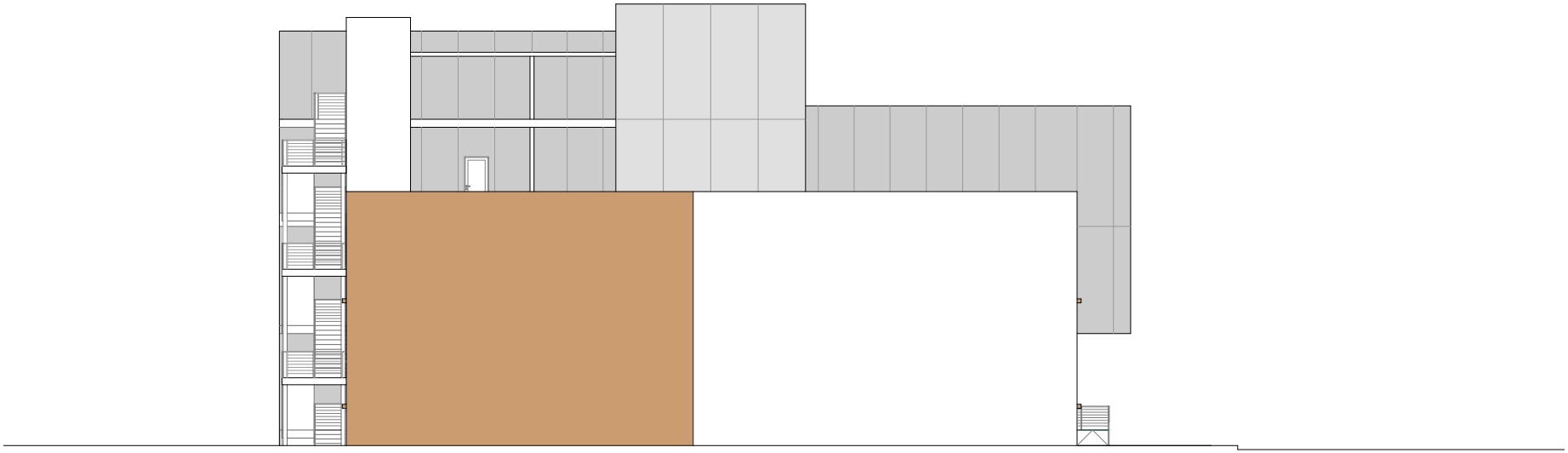


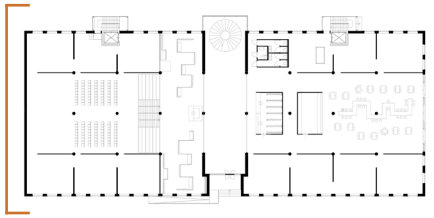


back view I M 1:250
east facade



side view I M 1:250
south facade





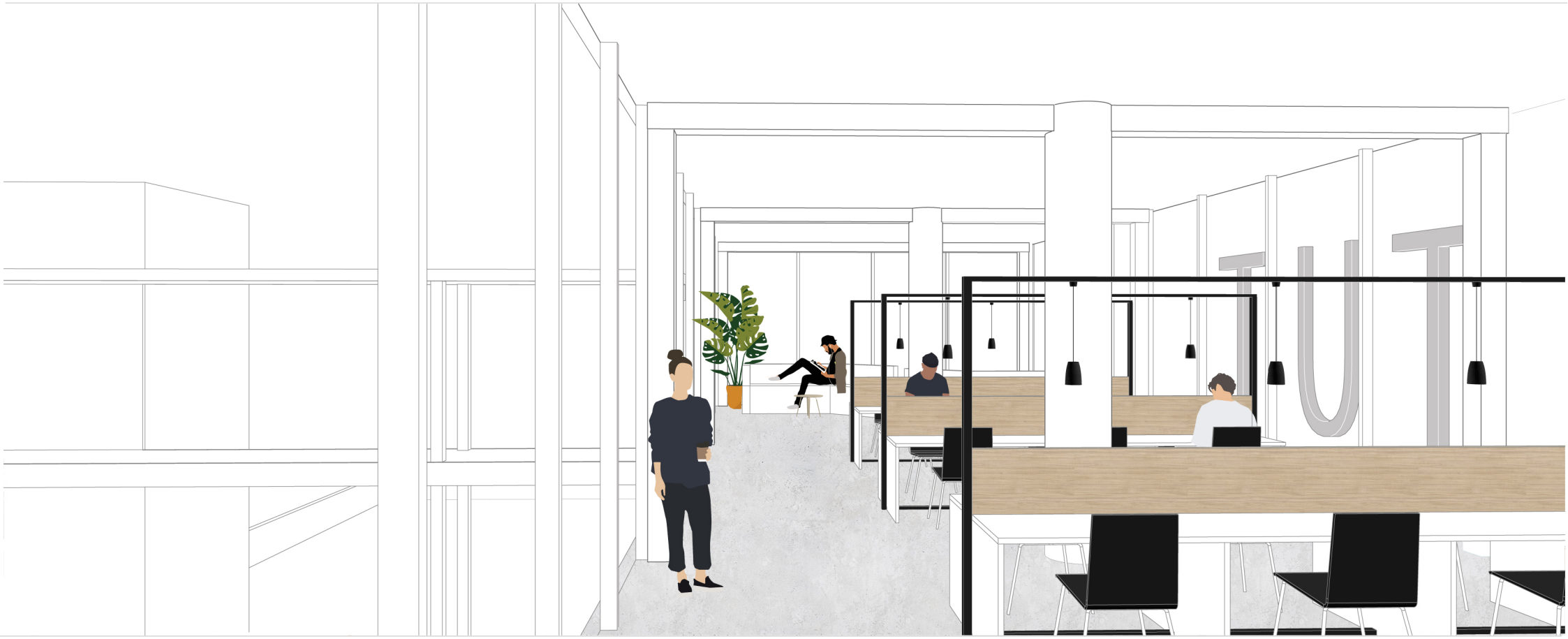
side view I M 1:250
north facade

visualization
ground floor cafe

visualization
multifunctional hall in the ground floor

visualization
view from the first floor

visualization
view from the first floor


TUT

visualization
library/study area on the top floor


TEKSTILNI

visualization
view from the outside

Fig. 59: Panorama view of Melle

Conclusion

Although Melje is not a strictly industrial area any more, it is still in the shackles of its industrial past. A large portion of the buildings, situated in Melje, is nowadays still used for industrial production. Nevertheless, the area still has a lot of potential. Although it is often overlooked, it has quite a few qualities, such as excellent traffic connections, close proximity to the city centre and location next to the river Drava. This is why it is necessary for Maribor to put focus on the development and revitalization of this area.

Analysis of the area and taking stock of the existing buildings have proven to be very important steps in the process of revitalization. Through analysis, I determined the qualities, weaknesses and potentials of the area. Based on that, I was able to asses the needs of Melje. In this case, the lack of diversity and cultural functions was obvious. Moreover, by taking the stock of the existing buildings, I came to find the importance of industrial past and the textile industry. I uncovered quite a few industrial buildings with remarkable architectural qualities and rich history.

Reconstruction of the Textile Institute would fulfill the need for a greater variety of uses, especially cultural ones, and simultanously acknowledge the industrial past of Melje. This once legendary building that played a vital role in the development of the textile industry not only in Melje, but in the entire Yugoslavia, is worthy of a reconstruction, which would provide an opportunity to remind people of the glory days of the textile industry production in Maribor. There is also a future possibility for the Textile Insitute to connect with the other former buildings of the textile industry and together form a complex of buildings with a variety of cultural functions.

Reconstruction of the former textile institute might not prove to be the catalyst for change, but it might be the first of many steps into the right direction. It would inject some new life into the area, by providing it with art and culture, while simultaneously reminding the people of the importance of its industrial identity and its historical heritage.

sources

bibliography
internet sources
table of figures

Bibliography

- Baum, Martina / Kees, Christiaanse (ed.): City as Loft. Adaptive Reuse as a Resource for Urban Development, Zürich 2012

- Bole, David: Ekonomska preobrazba slovenskih mest, Ljubljana 2008

- Jodidio, Phillip: 100 Contemporary Architects, Zürich 2008

- Lobnik, Uroš: Urbanistični razvoj mesta Maribor, in: Urbani izziv 10 (1999), 41-47

- Majcen, Gabrijel: Kratka zgodovina Maribora, Maribor 1926

- Matjašič, Marjan: Jugoslovanski Manchester. Mariborska tekstilna industrija, Maribor 2016

- Pirkovič-Kocbek, Jelka: Izgradnja sodobnega Maribora. Mariborska arhitektura in urbanizem med leti 1918 in 1976, Ljubljana 1982

- Radovanovič, Sašo: Mariborske ulice nekoč in danes, Miklavž na Dravskem polju 2015

- Radovanovič, Sašo / Žiberna, Igor: Maribor City Guide, Maribor 1999

- Varl, Valentina / Tomažic, Dušan / Radovanovič, Sašo: Mariborske zgodbe, Maribor 1997

- Lega in podnebje, http://www.maribor.si/povezava.aspx?pid=3794, in: http://www.maribor.si [16.5.2020]

- Dostop do Maribora, http://www.maribor.si/povezava.aspx?pid=3795, in: http://www.maribor.si [16.5.2020]

- Judi v Mariboru, http://www.sinagogamaribor.si/slo/dediscina/judi-v-mariboru/, in http://www.sinagogamaribor.si [16.5.2020]

- Ivanovič, Nataša (7. 4. 2014): Ljubo Humek, http://www.mariborart.si/osebnost/-/article-display/ljubo-humek, in http://www.mariborart.si [24.5.2020]

- Martinec, Vesna (16.8.2018): V Mariboru tisoč novih stanovanj v prihodnjih letih, http://www.rtvslo.si/radiomaribor/novice/v-mariboru-tisoc-novih-stanovanj-v-prihodnjih-letih/463349, in: http//www.rtvoslo.si [4.6. 2020]

- Mariborska tekstilna tovarna MTT, http://industrijskapespot.si/mariborska-tekstilna-tovarna---opis.html, in: http://industrijskapespot.si [24.5.2020]

- Špeh, Nives (25.2.2002): Mariborska tekstilna industrija skozi prisilke in stečaje, http://www.finance.si/18953?cctest&, in: http://www.finance.si [24.5.2020]

- Bradač, Barbara (30.4.2019): Umetnostna galerija Maribor se vidi v nekdanjem MTT-ju, http://www.vecerkoroska.com/umetnostna-galerija-maribor-se-vidi-v-nekdanjemjem mtt-ju-10002024, in: http://www.vecerkoroska.com [24.5.2020]

- Zeleni sistemi (parki, drevoredi), http://www.maribor.si/podrocje.aspx?id=245, in: http://www.maribor.si [24.5.2020]

- Facts and figures, https://www.tate.org.uk/about-us/projects/constructing-tate-modern/facts-and-figures, in: https://www.tate.org.uk

- The building, http://www2.tate.org.uk/archivejourneys/historyhtml/bld_mod_building.htm, in: http://www2.tate.org.uk [3.6.2020]

- Turbine Hall, https://www.tate.org.uk/visit/tate-modern/turbine-hall, in: https://www.tate.org.uk [3.6.2020]

- Jones, Rennie (17.9.2013): AD Classics. The Tate Modern / Herzog & de Meuron, https://www.archdaily.com/429700/ad-classics-the-tate-modern-herzog-and-de-meuron, in: https://www.archdaily.com [3.6.2020]

- Design, https://www.tate.org.uk/about-us/projects/tate-modern-project/design, in: https://www.tate.org.uk [3.6.2020]

- Palais de Tokyo, https://www.museeum.com/museum/palais-de-tokyo/, in: https://www.museeum.com [4.6.2020]

Internet sources

- Ayers, Andrew (28.5.2012): Palais de Tokyo rejuvenated in Paris by Lacaton and Vassal, https://www.architectural-review.com/today/palais-de-tokyo-rejuvenated-in-paris-by-lacaton-and-vassal/8630777.article, in: https://www.architectural-review.com [4.6.2020]

- Winstanley, Tim (29.6.2012): Palais de Tokyo Expansion / Lacaton & Vassal, https://www.archdaily.com/248026/palais-de-tokyo-expansion-lacaton-vassal, in: https://www.archdaily.com [4.6.2020]

- Das Gebäude, https://tabakfabrik-linz.at/informationen/das-gebaeude, in: https://tabakfabrik-linz.at [6.6.2020]

- Sckaer, Tobias: Radikaler Funktionalismus.Die Tabakfabrik Linz, https://www.ubm-development.com/magazin/tabakfabrik-linz-bauhau, in: https://www.ubm-development.com [6.6.2020]

- Tabakfabrik, https://stadtgeschichte.linz.at/denkmal/default.asp?action=denkmaldetail&id=90, in: https://stadtgeschichte.linz.at [6.6.2020]

- Redecke, Sebastian: Die Tabakfabrik in Linz, https://www.bauwelt.de/themen/bauten/Die-Tabakfabrik-in-Linz-Moderne-Industriebauten-Peter-Behrens-Alexander-.Popp-2153431.html, in: https://www.bauwelt.de [6.6.2020]

- Fuchs, Nina (10.12.2019): Zentraler Teil der Tabakfabrik Linz wird revitaliziert, https://tabakfabrik-linz.at/2019/12/braukunst-und-kreativitaet-im-kraftwerk, in: https://tabakfabrik-linz.at [6.6.2020]

- Tekstilni inštitut, http://industrijskapespot.si/tekstilni-institut---opis.html, in: http://industrijskapespot.si [13.5.2020]

- Maučec, Jaka (12.3.2018): Nekoč legendarna stavba v Mariboru prepuščena propadu, ne želi si je nihce, https://mariborinfo.com/novica/lokalno/nekoc-legendarna-stavba-v-mariboru-prepuscena-propadu-ne-zeli-si-je-nihce/161531, in: https://mariborinfo.com [13.5.2020]

- Fig. 1: View of Melje
  http://galerija.industrijskapespot.si/var/albums/MTT/MTT---dokumenti/IMG_2379.JPG?m=1355138368
- Fig. 2: Location of Maribor
  https://upload.wikimedia.org/wikipedia/commons/0/02/Statisti%C4%8Dne_regije_Slovenije_2016.png
- Fig. 3: Maribor during Medieval Period
  https://www.kamra.si/images/zoo_cache/201802/slika_5_SI_PAM_1693_001_001_00012_20180216_110405_f60dcf5b50b8bbde73e5f428a7f4e74d.jpg
- Fig. 4: Bridges of Maribor
  https://i2.wp.com/homocumolat.com/wp-content/uploads/2019/06/MARBURG-MARIBOR.jpg?w=732&ssl=1
- Fig. 5: View from Kalvarija
  https://i0.wp.com/homocumolat.com/wp-content/uploads/2019/06/51383085-Maribor-Slowenien.jpg?w=714&ssl=1
- Fig. 6: View of river Drava
https://i2.wp.com/homocumolat.com/wp-content/uploads/2019/05/Maribor_1880b.jpg?resize=768%2C526&ssl=1
- Fig. 7: The main train station
  http://www.plinarna-maribor.si/res?bin.svc=obj&bin.id=5F06770D-1852-90B0-0868-C26B7369B022
- Fig. 8: View of Sparkasse in 1910
  https://i0.wp.com/homocumolat.com/wp-content/uploads/2019/04/MARBURG-A-DR-SPARKASSA-UND.jpg?resize=768%2C479&ssl=1
- Fig. 9: Military parade after World War I
  https://img.rtvslo.si/_up/upload/2019/12/10/65631121.jpg
- Fig. 10: Partizanska Road circa 1925
  https://i1.wp.com/homocumolat.com/wp-content/uploads/2018/10/aleksandrova44.jpg?resize=1024%2C638&ssl=1
- Fig. 11: Glavni trg (Main Square) before 1941
  https://i2.wp.com/homocumolat.com/wp-content/uploads/2020/06/na-glavnem-trgu-pred-1941.jpg?resize=768%2C473&ssl=1
- Fig. 12: Gosposvetska Street during WW II
  https://i.pinimg.com/originals/f5/0b/78/f50b787ec2e55dc266a20dd2b02a1566.jpg
- Fig. 13: Aftermath of WW II
  https://mariborinfo.com/sites/mariborinfo/files/styles/novica/public/slike/naslovne/2019/10/28/screenshot_2019-10-28_at_21.46.40.png
- Fig. 14: City zoning plan by Ljubo Humek
  https://www.kamra.si/images/zoo_cache/202004/4_Coning_nameska_raba_prostora_20200424_124402_f56795ae487c100f0ba1f9b8e5970951.jpg
- Fig. 15: Residential neighbourhood in Tabor
  https://d2tgfzhj9pkl2g.cloudfront.net/1003/1393/_5df575e18b8ad.jpg
- Fig. 16: Maribor in 1956
  https://upload.wikimedia.org/wikipedia/commons/e/ed/Lent_in_stari_most_v_Mariboru_1956.jpg

Table of figures

- Fig. 30: Industrial zone Melje
  https://upload.wikimedia.org/wikipedia/commons/7/77/Mariborska_tekstilna_tovarna_1962_%289%29.jpg
- Fig. 31: View of Tate Modern
  https://cdn.britannica.com/39/136939-050-4EFA1B8D/Tate-Modern-London.jpg
- Fig. 32: The building
  https://i.pinimg.com/originals/7f/70/69/7f7069e8bdf38f0adeaff27405cb7a2c.jpg
- Fig. 33: The Weather Project in Tate Modern
  https://permanenttourist.ch/2012/09/the-weather-project/
- Fig. 34: The Tanks
  https://www.sueddeutsche.de/image/sz.1.1413768?v=1522971605
- Fig. 35: Blavatnik Building
  https://live.staticflickr.com/833/42253852885_cb18e6cf8d_b.jpg
- Fig. 36: Turbine Hall
  https://www.photohound.co/image/tate-modern-3166
- Fig. 37: Section
  https://i.pinimg.com/originals/b7/f2/bc/b7f2bcb9168eb54534df8192d85027b0.jpg
- Fig. 38: Palais de Tokyo
  https://www.linaghotmeh.com/assets/galleries//224/1703_01.jpg
- Fig. 39: The building
  https://www.palaisdetokyo.com/sites/default/files/frise/palais_de_tokyo_1937_0.jpg
- Fig. 40: Exhibition in Palais de Tokyo
  https://cdn.thespaces.com/wp-content/uploads/2018/10/013BW-HERO-1522x985.jpg
- Fig. 41: Palais de Tokyo
  https://www.palaisdetokyo.com/sites/default/files/styles/timeline_event/public/page/carrousel/1434-2.jpg?itok=jOr0OxHg
- Fig. 42: Exhibition in Palais de Tokyo
  http://www.officiel-galeries-musees.com/uploads/expositions/7bac1d1960d7d8e90d9e626f612385dd9263b98b.jpg
- Fig. 43: Exhibition in Palais de Tokyo
  https://cdn.thespaces.com/wp-content/uploads/2018/10/Tomas-Saraceno-014BW-1024x682.jpg
- Fig. 44: Section
  https://miesarch.com/uploads/images/works/2896-19614.jpg
- Fig. 45: Tabakfabrik Linz
  https://ars.electronica.art/solutions/files/2018/07/tabakfabrik.jpg

- Fig. 46: The building
  https://tabakfabrik-linz.at/wp-content/uploads/2015/05/Magazine-Grafik.png
- Fig. 47: Start-up in Tabakfabrik
  https://www.officeinspiration.com/wp-content/uploads/FST_9952startup300.jpg
- Fig. 48: Tabakfabrik inside
  https://tabakfabrik-linz.at/wp-content/uploads/2014/04/netural.jpg
- Fig. 49: Start-up in Tabakfabrik
  https://tabakfabrik-linz.at/wp-content/uploads/2018/01/netural_office_03.jpg
- Fig. 50: Lösehalle
  https://tabakfabrik-linz.at/wp-content/uploads/2012/10/IMG_7975_3-805x536.jpg
- Fig. 51: Tekstilni inštitut
  http://galerija.industrijskapespot.si/var/albums/Tekstilni-Institut/Tekstilni-institut---%C4%8Dlanek/Tekstilni%20institut%20VIR-UKM.JPG?m=1364399592
- Fig. 52: Tekstilni inštitut
  http://galerija.industrijskapespot.si/index.php/Tekstilni-Institut/Tekstilni-institut--clanek/Tekstilni-institut-VIR-UKM-9
- Fig. 53: Tekstilni inštitut
  http://galerija.industrijskapespot.si/var/resizes/Tekstilni-Institut/Tekstilni-institut---%C4%8Dlanek/Tekstilni%20institut%20VIR-UKM%20%283%29.JPG?m=1364399500
- Fig. 54: Tekstilni inštitut
  http://galerija.industrijskapespot.si/var/resizes/Tekstilni-Institut/Tekstilni-institut---%C4%8Dlanek/Tekstilni%20institut%20VIR-UKM%20%2811%29.JPG?m=1364399656
- Fig. 55: Tekstilni inštitut
  http://galerija.industrijskapespot.si/var/resizes/Tekstilni-Institut/Tekstilni-institut---%C4%8Dlanek/Tekstilni%20institut%20VIR-UKM%20%284%29.JPG?m=1364399440
- Fig. 56: Tekstilni inštitut
  http://galerija.industrijskapespot.si/var/resizes/Tekstilni-Institut/Tekstilni-institut---%C4%8Dlanek/Tekstilni%20institut%20VIR-UKM%20%282%29.JPG?m=1364399404
- Fig. 57: Tekstilni inštitut
  http://galerija.industrijskapespot.si/var/resizes/Tekstilni-Institut/Tekstilni-institut---%C4%8Dlanek/Tekstilni%20institut%20VIR-UKM%20%288%29.JPG?m=1364399472
- Fig. 58: Tekstilni inštitut
  http://galerija.industrijskapespot.si/var/resizes/Tekstilni-Institut/Tekstilni-institut---%C4%8Dlanek/Tekstilni%20institut%20VIR-UKM%20%2810%29.JPG?m=1364399504
- Fig. 59: Panorama view of Melje
  https://upload.wikimedia.org/wikipedia/commons/f/fb/Panoramski_posnetek_Maribora_-_Melje_1961.jpg 200

All graphic content that is not referenced belongs to the author of the thesis.