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REASSESSING PULA: INTERWEAVING LANDSCAPE

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ABSTRACT

EN

The purpose of this work is to design a new waterfront district for the city of Pula, Croatia, on an area that lies mostly abandoned in the close proximity of its historical center. The city of Pula, due to its role as a military and industrial center, has developed a physical and psychological distance from the waterfronts of a large bay in which the town emerged. After the analysis of the historical development and the present situation of Pula, a project is designed to fulfil the needs of the city to re-connect to the water, as to exploit the potentials and create a new image of itself. Emphasis has been placed on the open spaces and the possibilities of their use.

DE

Im Mittelpunkt dieser Arbeit steht der Entwurf des Viertels an der Meeresküste in der Stadt Pula, Kroatien. Dieser Teil der Stadt befindet sich in einer großteils verlassenen Gegend, die nahe dem historischen Zentrum liegt. Die Stadt Pula, seit jeher ein militärischer und industrieller Drehpunkt, hat eine physische und psychologische Distanz zur Meeresküste entwickelt, aus welcher sie sich eigentlich entwickelt hat. In Weiterentwicklung der Analyse, die sich an der geschichtlichen Entwicklung und der gegenwärtige Situation in Pula gehalten hat, wurde dieses Projekt so entwickelt, dass die Stadt wieder mit dem Meer verbunden wird, mit dem Hintergedanken das dahinterstehende Potential dieser Verbindung zu mobilisieren und der Stadt eine neue Ansicht zu verleihen. Der Hauptaugenmerk wurde auf die öffentlichen Plätze und deren mögliche Nutzung gelegt.

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INTRODUCTION

The city of Pula, situated on the promontory of the Istrian peninsula in the northern Adria, is a small size city of around 60000 inhabitants, and finds itself on a verge of a important decision for the future development of the area. The town has been established in a deep and well protected bay, a perfect port, but has lost its connection with the sea in the later times. Due to its very specific development in the past, Pula offers an unusual urban configuration for the typical Mediterranean city in which the main space, the center of the city's social and economic life is situated on the border between land and sea.

The city that was flourishing during the Roman period lost completely its importance as it almost totally destroyed by the plague and the long war with the Republic of Venice in the 16th, 17th, and 18th century. Pula has been reborn again by the Austro-Hungarian monarchy as it was chosen for the safety of the port, to be the main naval base of the empire and a major shipbuilding center. In the hundred years of Austrian dominance (1813-1918) the devastated town of less than 3,000 inhabitants increased the number of souls to 58,562 (Austrian census of 1910). This development, of creating a military and industrial center, started to distance the city´s public life from its coasts. This trend has only been reinforced by the politically very

instable later periods that has seen the exchange of Italian, Yugoslavian and Croatian political systems. The large precluded areas in the bay of Pula, are seeing a crucial moment as the military is setting them free, leaving behind a large number of abandoned objects of the massive military infrastructure built in the period of two centuries, and vast territories in their almost intact natural condition.

Due to the possibility of fast profit and temporary creation of employment there are plans from the authorities to convert this territories into touristic centers. The question to be asked is if such a strategy will work on the reintegration of the precluded areas into the city's physical, social and economic system and what will the consequences on the environment be?

After the creation of a master plan for the whole bay area, that imagine the future development of the abandoned areas and their reconnection to the existing city, this work focus on the design of a new waterfront near the city center. The aim of the project is to first phase of the expansion on the abandoned areas , as it solves the crucial infrastructural problems that the city has and it creates a new district on the water to give Pula a new appeal.

An analysis of the cities patchwork, of its historical

developments and planning, of the present spatial situation, especially on the existing waterfront has been made to learn the possibilities and needs of the city to immediately achieve a connection to the water.

BASIC DATA

COORDINATES:...........................44°52'N, 13°51'E
ELEVATION:.....................................30 m
CITY AREA:...51.65 km2
(LAND: 41.59 km2; WATER: 10.09 km2)
POPULATION (2001):...................................57 460
DENSITY:..1,100/km2

AVERAGE HIGH TEMPERATURE.................18.25°C
AVERAGE LOW TEMPERATURE.....................9.8°C
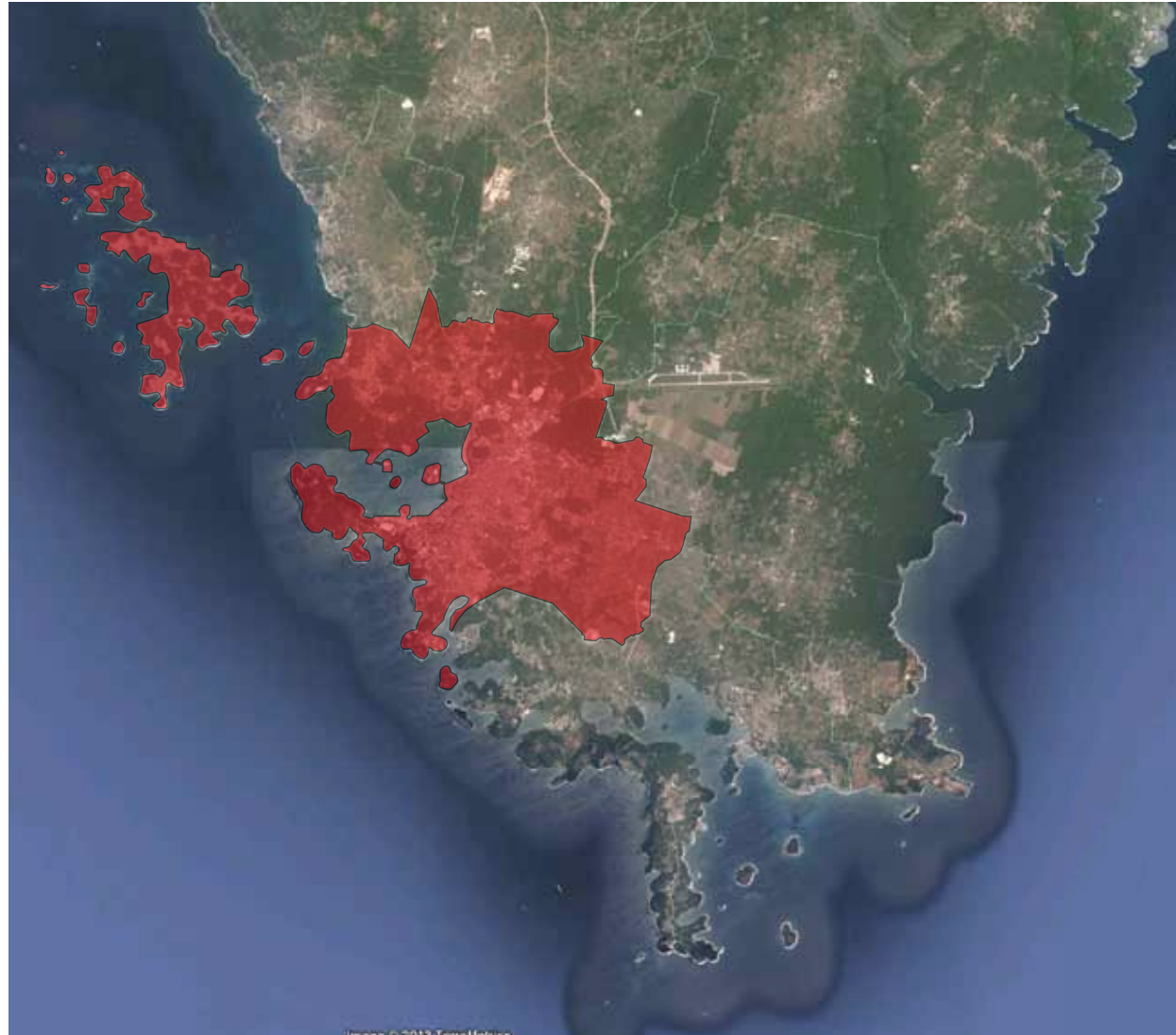
HYSTORICAL DEVELOPMENT

THE ROMAN CITY

Although the origin of the city date to the original population, the Histri, who were living on the territory even before the arrival of the first Greek colonies around the 10th century BC, the most important period in the history for the development of the city we can see today is the roman period. During roman times, from the first century BC until the 6th century AD the village on top of one of the 7 hills in the gulf became a town in the full sense of the word, a town with a plan, a street layout, squares, public buildings, theaters, and the amphitheater. That the main historic buildings of this period are still well preserved and also used in the present is also a play of chance, but the urban framework of the city, the position of the main squares, the main routes and connections were given in classical times, and that is a result of a functioning elaborated system the Romans designed on the territory.

The Romans conquered the Peninsula in 177BC, after the Second Histrian War, but it was only in the second half of the 1st c. BC, that Pula became a colony for the legionaries and an important commercial emporium and port for exchange of various goods. Many historian argue that during the Civil War, the city of Pula took the side of Brutus and Cassius and suffered greatly after Caesar´s death by the armies of the victorious Octavian. After having completely ruined the city, Octavian, now emperor August, reconstructed it because of strategic and economic values .

ANTIC STREETS SCHEME
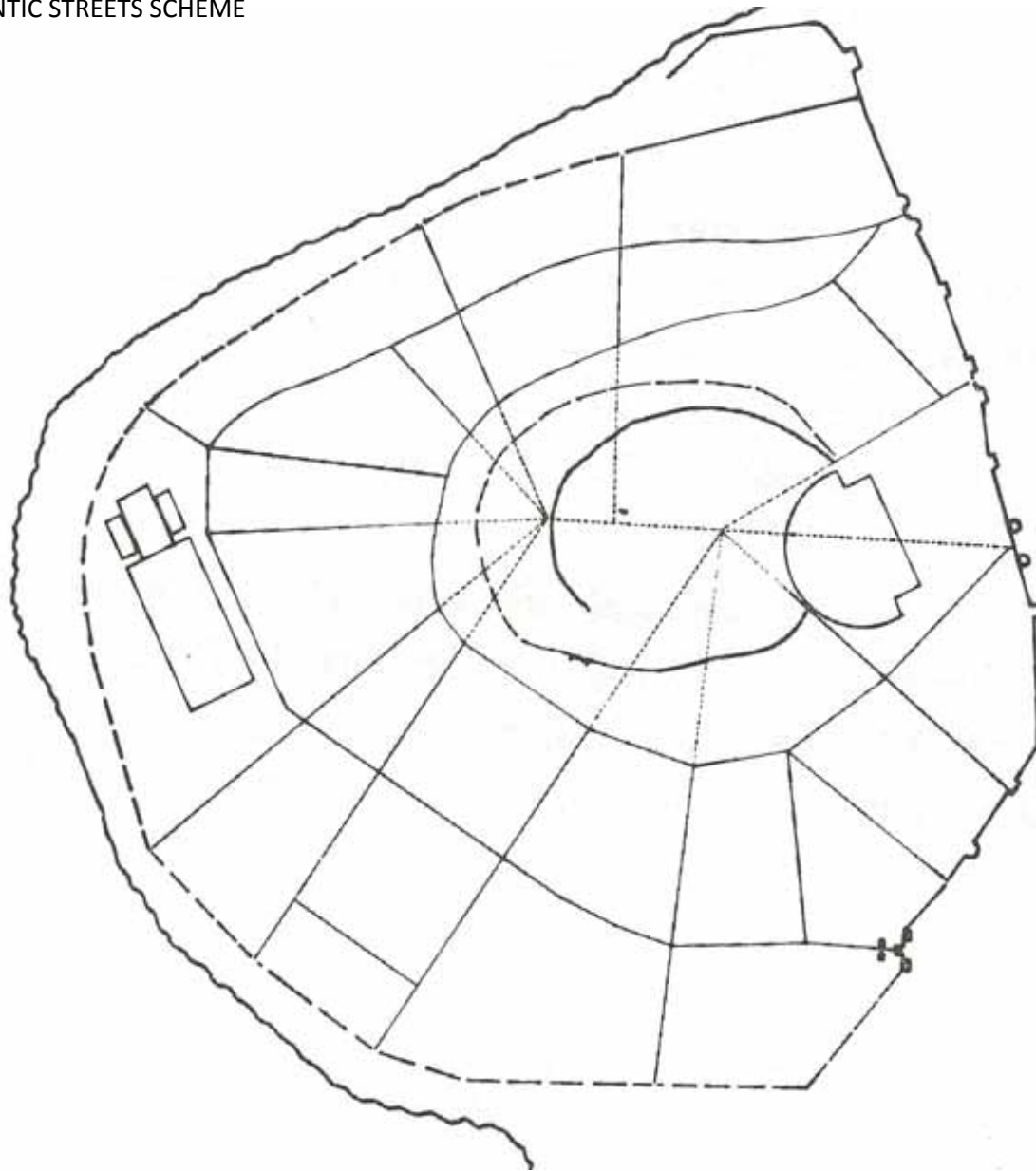
During his reign some of the most important buildings were erected and many of them are still preserved.

The established urban center was superimposed on an even more ancient hill-fort settlement which made the plan of the city specific to itself in roman times as a classical rectangular grid that characterized the other roman centers was not possible due to the hilly terrain. The original roman camp was located on the top of the hill and the civil urban fabric begun to grow in the elliptical area around the hill to the seashore, similar to a process later common in medieval centers. Several concentric roads were built two of which were the main one, the one on its foot and the one on the half way up. Those streets were connected by radial streets or mostly narrow steps resembling a conformation similar to a spider web.

The lower circular road, mainly constructed on landfill sites, is particularly interesting as it is, in part, still the main pedestrian route in the city center. Today, similarly as during the classical period, it passes through the forum where it connects with another important road, the one that brings to the amphitheater. The whole area of the city was surrounded with defensive walls with twelve gates (7 to the sea and 5 to the inland) .

The forum was, and still is, the center of city life. On the north and narrower part of it three temples were erected, one of which, the Temple of August still stands in an almost complete stand of preservation. The other sides the square of 80x30 meters were surrounded by a colonnade which gave access to all the important administrative, legal and commercial buildings. Today, the city
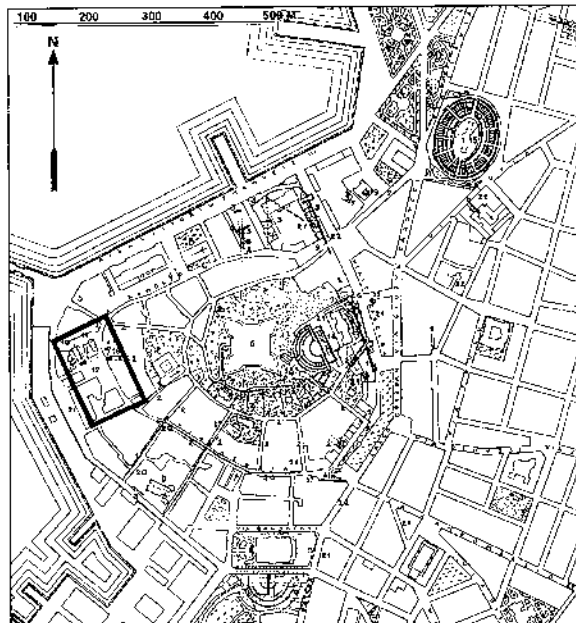
council and other administrative offices, the central touristic office, commercial functions as also bars and restaurants on the forum make of it a focal point and the most representative city place.

As a proof of the flourishing atmosphere during the roman Pula, there were two theaters, a smaller one inside the city walls, mostly preserved and a bigger one for more than four thousand spectators outside the walls on the Zara hill, from which nothing remained till today.

Also a great amphitheater was built outside of the walls for its size to host 20,000 - 23,000 spectators from the whole region. The amphitheater of Pula is one of the most preserved roman Arenas in the world, build mainly of stone, could be defined the main image of the city, the biggest visitor attractor.

Today it´s still used to host festivals and cultural events during the summer months.

The growth of Pula continued during the whole imperial period until the 5th century, and a very intensive economic life developed which ensured the richness and importance of Pula. Agriculture, mainly olives and vineyards, was very developed due to the very fertile terrain in the south-istrian Ager, the agricultural region of the city, and the great possibility of international trade thanks in the first place to the excellent harbor in a sheltered bay. The harbor was an important transit port and anchorage, a place of refuge in need on the sea routes down the eastern to Aquileia and Ravenna, and was constantly involved in trade and transit of military supplies to and from the Mediterranean and the Imperial frontier on the Danube.

As a conclusion it is easy to observe that the Romans developed a model that many Mediterranean cities still present in their plans. But in the case of Pula, which went through a long difficult period after the fall of the roman empire as a result of constant changes of dominance and bad relations with the venetian republic, the city´s second renaissance happened late in the 19 century during the Austro-Hungarian dominance. Until then Pula was partly ruined by wars and diseases and remained a romantic ruin of itself by the fall of Venice in the late 18th century. The positive aspects of a long black period is that the modern city developed around the roman center, which remained a sort of city inside the city. As a result, beside the physical legacy, it enabled Pula to create, thanks to its historical importance, in the modern times in which it has mostly been an industrial center a touristic reputation for intellectual exchange.
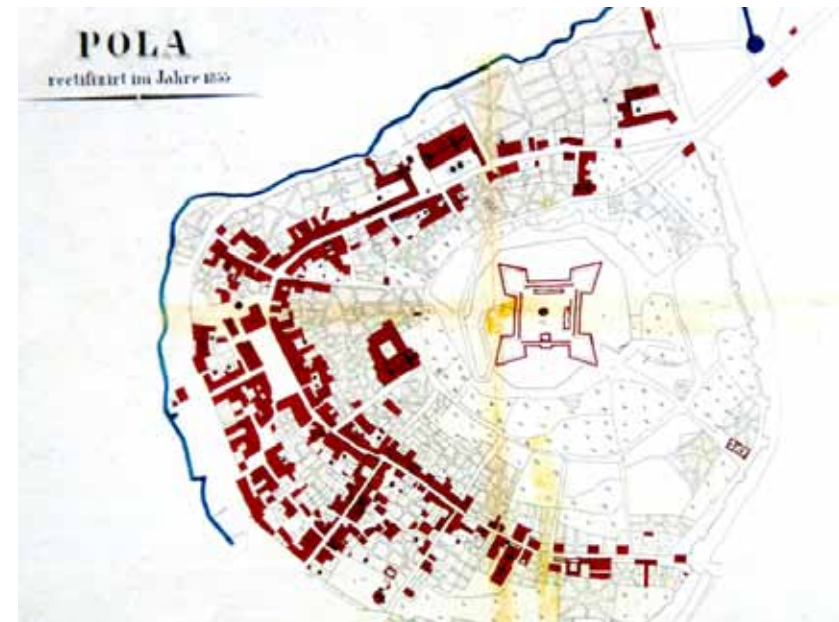
AUSTRO-HUNGARIAN CITY

After the Slavonic incursions in the second half of the 6th century, the city fell in a long instable period in which many dominances changed and most of them contributed to the social and physic devastation of Pula. Especially in the Middle Ages, Pula was pressed hard between the interests of two dominant forces in the region: the Patriarch of Aquileia and the new power of the Venetian Republic, which often led to tragic and very bloody civil conflicts. Even thou Pula made a treaty with Venice at the beginning of the 11th century, its maritime strength represented a treat to the Venetian interests so that their navy was forced to undertake more campaigns against Pula .

From the 12th to the 14th century, the city suffered attacks by Pisa and especially by Genoa. Under the direct rule of Venice, the city was conquered by Genoa several times, mostly because the Venetians had no interest in developing a second center but were indented to stronger itself as the main and only force on the northern Adriatic Sea. After the commercial importance was ruined the region was affected by plague and malaria, especially in the 15th century. According to the testimony of contemporaries, had barely 300 inhabitants after the fall of Venice in 1797. Even the first Austrian rule didn't show any interest in the ruined village of Pula, and the city had lost its importance as a port.

All changed with the fact that the struggle of the Italian people for unification has threatened

CADASTRAL PLAN, 1955

Hafen von Pola.

Maßstab 1 : 35.000.

Höhen in Metern.

A. Hartleben's Verlag.

G. Freytag & Berndt, Wien.

the Austrian possessions on Italian soil and it became clear that the commercial port of Trieste couldn't be secured by the maritime arsenal and navy situated in the rebel and anti-Austrian Venice. An imperial committee has decided, after having visited some ports on the Croatian coast of the Adriatic sea, that the safest location for its principal naval port and arsenal would be the harbor of Pula.

After the announcement that Pula is becoming the imperial navy base harbor of the Hapsburg monarchy, the awakening of a dead city started, and a 50 years long process of incredible economic, social and demographic growth begun. The number of inhabitants grew to 2,000 during the first years of building the arsenal, in mid eighties Pula numbered over 20,000 inhabitants, and just before the World War I, the city reached almost 60,000 souls .

Interestingly, every fourth inhabitant was a marine, officially moved to Pula, and in such a contest the city was often defined by the foreign as a boring marine center. However, the social-economic situation in the city was changing rapidly as highly educated inhabitants were coming from abroad, new educational programs, mainly of maritime characteristics, were installed, and people from the local villages were looking for their way to come in the city and find a market for their products. Also, a highly multi-ethnical population was installed, composed mainly from Austrians, Croats and Italians. Even if the Austrian plans was to build a city for the army, the commercial, the development of the commercial part of the harbor also played a large role in the

economical growth of the city and its maritime traffic. As a consequence, the conditions for the birth of a new social class, the working one, were laid, which had by the end of the century it´s full political strength and organization.

Physical changes were, of course, directly following the social ones and as dynamic as the social ones. New demands of the naval port, the arsenal and numerous central naval institutions had completely changed the appearance both of the harbor and the city itself. The arsenal was built on a landfill eastern of the center once represented the roman city, where a large area was enclosed by great walls and contained offices, docks, storage buildings for munitions and other materials, working halls and other plants and facilities.

Large spillways and dry docks were built on the islet of Uljanik, which has its name from the olive trees that were once grown on it, in the middle of the harbor. The commercial port was installed western of the arsenal.

The first sketches and plans for the construction of navy objects: the arsenal, the navy quarters, hospitals, institute, command and houses, were elaborated by Viktor Domasevski on the model of other north European war harbors. The New Pula was built between the hill Zaro and Veruda, the upper part northern of the arsenal facing to the open sea. In the lower parts, in the vicinity to the arsenal, worker´s houses and barracks were erected, and in the upper parts villas for the highest naval officers.

Later, new residential districts were built in the whole area surrounding the city so that the roman monuments that once were outside the walls now found itself almost in the center, and some villas were erected upon the central hill on roman ruins. In the year 1842 Pula has just 214 houses, many of which were empty. In 1919, the number of buildings for housing was around 7300.

In the year 1871, Pula gets the first theater building for around 800 spectators, a universal auditorium for all the arts of theater and musical events, but also for the film, which has found its way to pula in his earliest stages.

For the education of the local community many schools has been developed. In 1913, there are the National high Gymnasium on German and Italian languages, national real school, national school for boys and national school for girls, maritime school, public school for boys and girls, K.u.K. engineering school, K.u.K. school for scientists, school of trades and some other schools for boys and girls on Italian language. On the hill Zara, right upon the arsenal, the hydrographic institute was built with the observatory, the section for the instruments, the section for the nautical charts, and the maritime library. The institute had the function to secure al the nautical utilities, research the environment and weather conditions, collect professional literature regarding maritime techniques and art of war. The library was later relocated in the new built monumental central building of the K.u.K. Marine technical committee, which was a proper high school for engineers in maritime technology.

The center of social life for the elites was the

"Marine Kasino", a club for all the member of the navy. Cultural events, scientific meetings and parties were organized, the building had its own electricity and served lunch and dinner for its members.

Beside the marine administration objects and facilities at the beginning of the 20 century Pula was a developed port middle size city with well-defined quarters, electricity, gas, public transport was ensured by two electric tram lines, one of the first installed on the territory of ex Yugoslavia, 8 Hotels in the city, green areas and parks. The town had also a public bath in the north-east of the bay, designed on the docks with cabins and pools for adults and children. A new one was designed in 1889 in the proximity of the train station.

Contemporary, the monarchy has developed an important defense system for the port. The six circular stone forts securing the bay, three on both of its sides in 1866 were 28 in 1910. The forts were built also on the countryside end on every high or strategic point so that the maximum distance between each other had to be 2 kilometers. At the beginning those were circular and stood on high positions, but the later ones were often constructed underground, masked by the vegetation and had many geometrical compositions. As those objects were built also in areas where the city was spreading, it often brought to situations where the houses could be a handicap in the defense system and negate the visibility in directions of possible enemy attacks. For this, in some areas housing wasn't allowed and it is still possible today to see fields or gardens

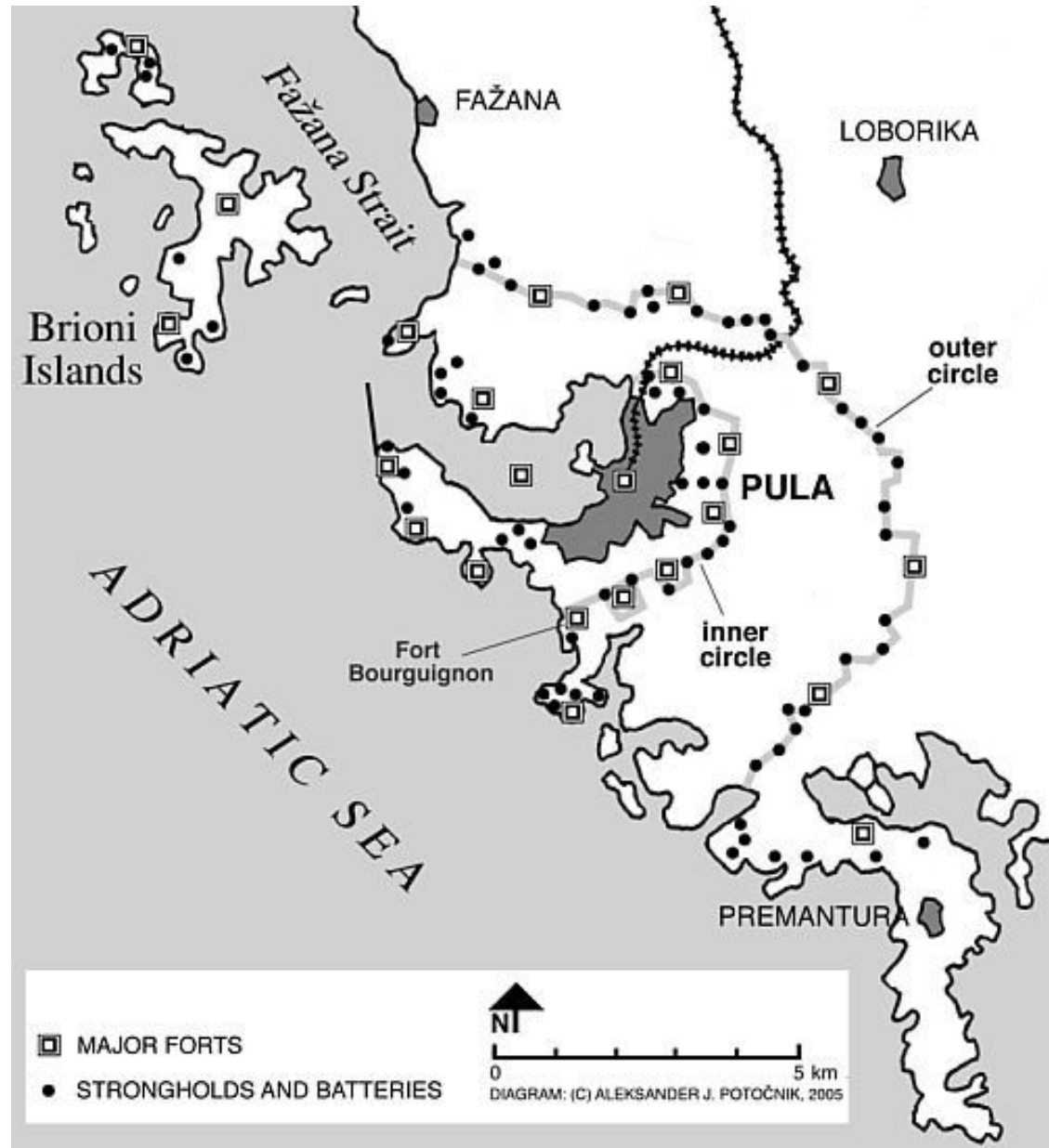inside the city borders or on the southern coast facing the open sea.

Between 1910 and 1914, a large breakwater, that still encloses the entry in the port, was constructed. When it was finished, it was easy to disable any entrance trough the narrow passage even with nets against submarines.
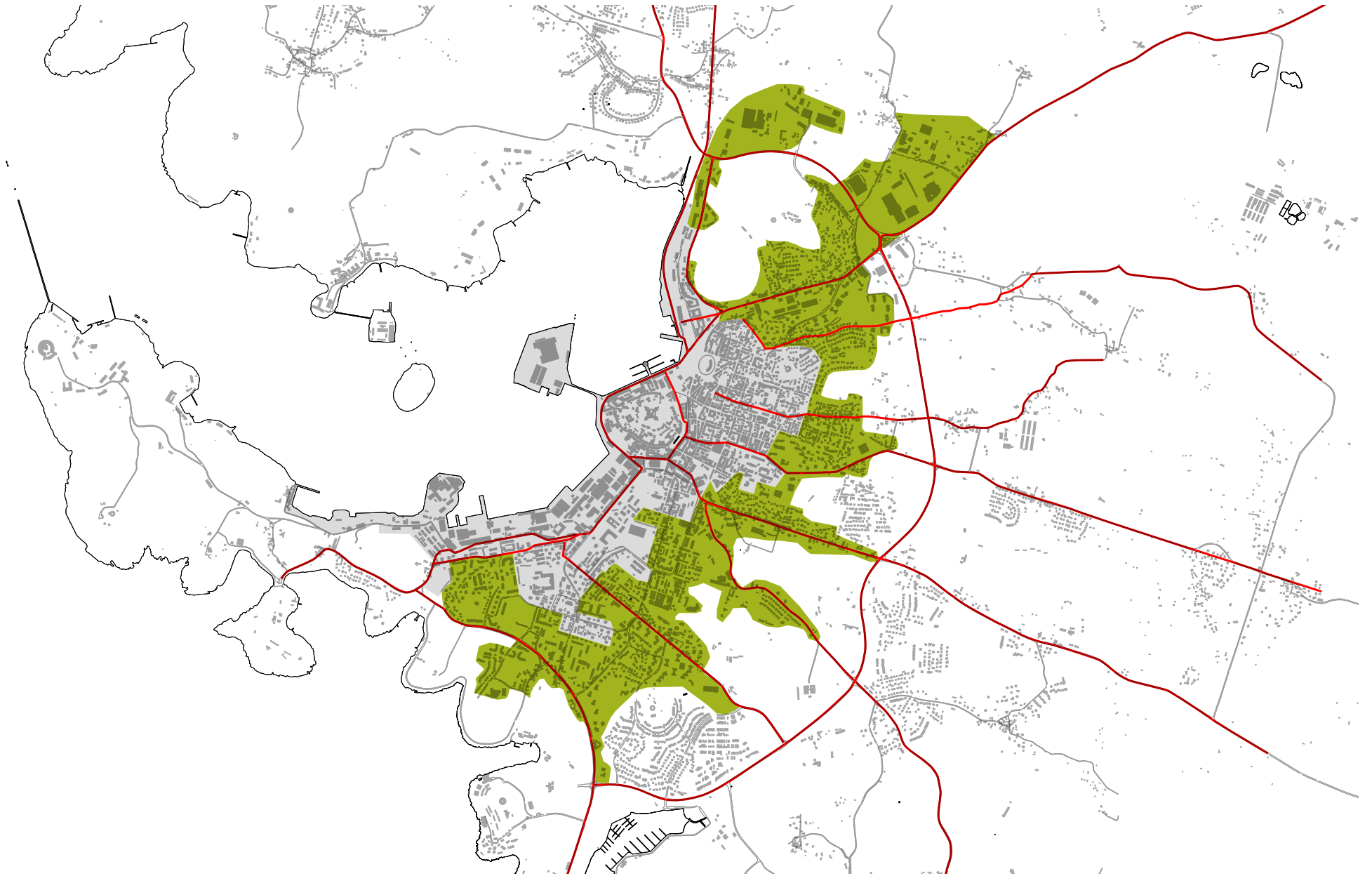The belt of strongholds expanded towards the sea on both sides of the bay.

Pula was in the time of the Austrian dominance a big fortress for itself.
The monarchy fell in autumn of 1918 and Pula was occupied by Italian troops . During their administrations the strategic position of the naval port of Pula lost its former importance in the new circumstances.
It is clear that the 50 years of Austrian dominance and the fact that the city was chosen for such an important task as being a principal naval base of the empire, has made the city that still is. The 60,000 inhabitants the city had at the peak of the monarchy era, are today, around hundred years later still the city´s reality and the connections with central and western Europe are still very present. Thanks to the industrialization of the period, the city survived till the present, mainly because of the ship building branch that remained the most important part of Pula´s economy.

FAŽANA

LOBORIKA

Fažana Strait

Brioni Islands

outer circle

PULA

inner circle

Fort Bourguignon

ADRIATIC SEA

PREMANTURA

N

☐ MAJOR FORTS

● STRONGHOLDS AND BATTERIES

0   5 km

DIAGRAM: (C) ALEKSANDER J. POTOČNIK, 2005

YUGOSLAVIAN CITY

During the period of between the two Wars the whole region, under the Kingdom of Italy, was marked by the tendency of economic regression, and Pula was seen as a mere administrative center. After the de-capitulation of the Fascist regime, the city was occupied by the German military force and heavily bombed. The liberation came in 1945 and in 1947 it became a component part of Croatia within the federal People´s Republic of Yugoslavia.

In 1948, in the town of Pula 21,065 inhabitants were registered. As a result of the exodus that saw thousands of Italian nationals leaving their homes after the arrival of the communist forces, the city was repopulated mostly by the members of the army and the number of inhabitants started to grow rapidly, so that before the fall of Yugoslavia in 1991 the city had once again around 60,000 thousand inhabitants .

To ensure enough apartments new residential areas were erected on the green fields at the edges of the city, forming a new ring around the built environment, as this type of planning was considered less expensive and more productive than adopting the existing urban structures. High-rise standardized prefabricated buildings in the districts of Sijana in the northern part and Vidikovac on the southern hill upon Veruda created a new silhouette to the city. This policy brought to the consequence that empty spaces in the city center, on the sites once occupied by houses that

ROBNA KUCA SHOPPING CENTER

were demolished during the war years, were left unbuilt. The city got excessive open spaces and unused parks that never integrated itself into the urban framework of the city. Also, some of the fertile lands between the hills of Pula remained free and cultivated as housing was spreading along the main radial roads, making the border of the city blurred and sometimes undefined.

Economically the city saw a very positive period as the traditional shipbuilding industry was maintained and developed. The shipyard Uljanik, used during the Italian years just for remount and repair of ships, has become a world known factory. The country invested in technological research and Pula has soon been delivering big cargo ships to companies all over the globe. The industrial zone in the port was amplified to the south by installing a concrete factory with a stone quarry just beside it, and a new shipyard for smaller ships.

Also, other activities were developed such as the processing industry and the fishery.

During the communist years, Pula was merely an industrial working center, but also the tourist component became more and more marked, because of its attractive surroundings. Although inland tourism was more popular, many hotels and touristic villages were erected along the outside southern coast, in the outskirts and in an immediate vicinity to Pula, favoring big blocks and leaving the most of the coast in its natural intact conditions.

Tourism was positively influenced by the fact that the president of Yugoslavia, Josip Broz Tito made his summer residence on the island of Briuni, declaring it a national Park with a zoo, and hosted there many imminent world politicians.

To ensure the safety of the president and due to the policy that considered military force an important aspect of the federation, the army was always present in the gulf of Pula, occupying entirely it´s northern coast after the train station, and the peninsula of Muzil that forms the southern side, making them totally inaccessible to the public. Especially the Muzil that closes completely the southern part of the bay never existed for the citizens of Pula, although its 80 meter high peak is seen even from outside the city. All the barracks and defensive objects from the time before the First World War were kept in function and formed two large military areas.

With such a scenario, the city opened itself to the outside coast promoting clear water and touristic exchange, but negated the city of its bay by leaving just 1,8 of 24 km for public use. On that part of the waterfront left a road was entirely following its length, on the northern area there was the train station and the southern was used as a fishing and transport port. It was an unusual situation for a Mediterranean city that distanced itself from its historical waterfront surrounding the old city. The built environment was spreading in an illogical way to its inland leaving the coasts of its bay, which definitely were its most attractive territory, intact.

In 1991, with the fall of the Yugoslavian Federation, Pula, as the whole Istrian peninsula became part of the new republic of Croatia.
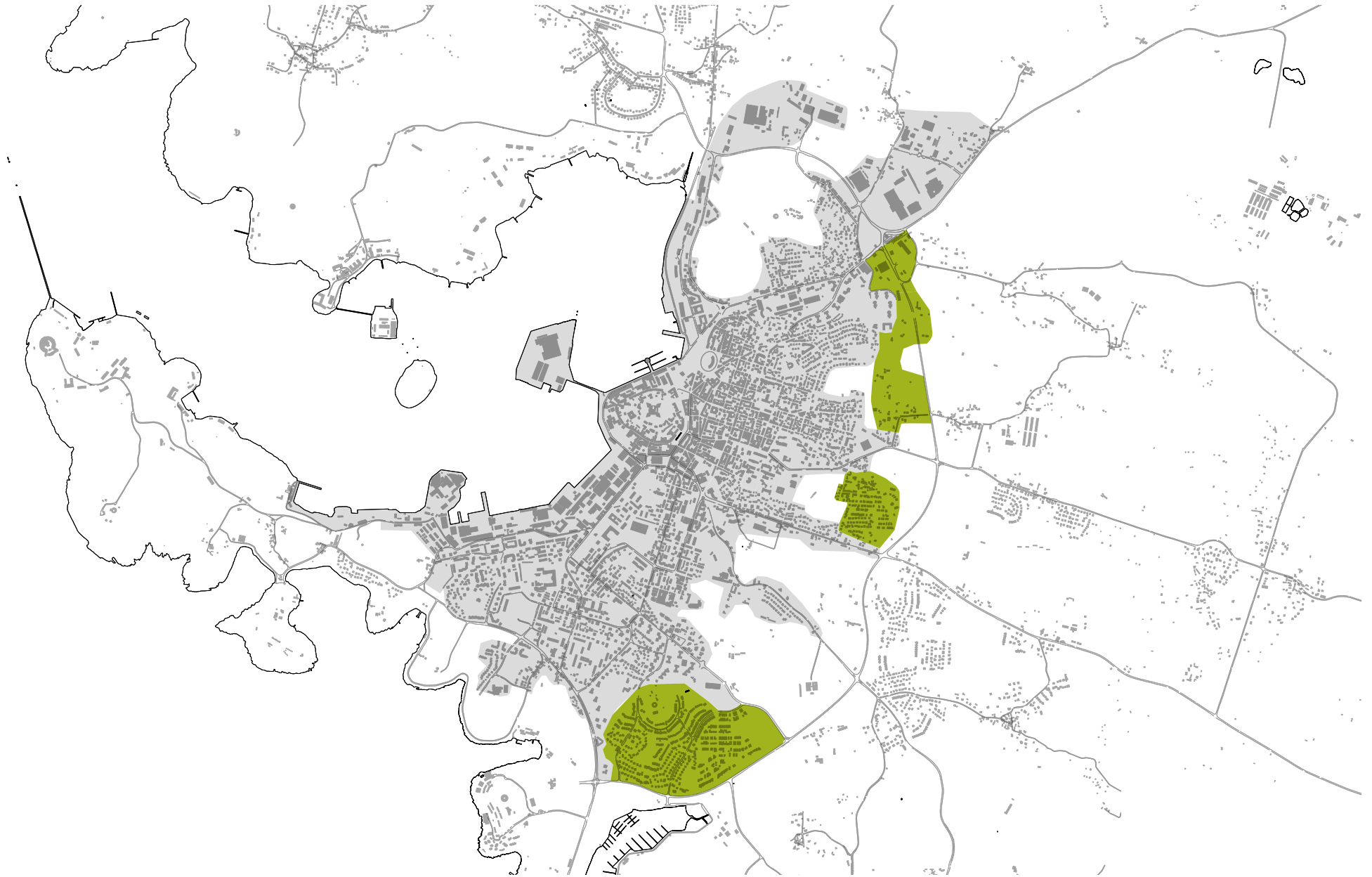
CROATIAN CITY

During the 4 years of war for independency that involved Croatia, Bosnia and Herzegovina and Serbia, the Istrian Region was, thanks to its position of being far away from the critical boarders and too close to western countries, the only Croatian part that wasn't directly involved into the fights and never exposed to attacks. This had many major positive consequences for the future of the City. All the existing industries survived the war years and most of them still function. This was also allowed, by the fact that beside the absence of physical war, the region wasn't affected in that scale by the bad privatization policy run by the government in the rest of the newborn country where the biggest part of the production collapsed. In fact, the inhabitants of Istria, used to constant change of dominance, thus being known for their tolerance, never actually accepted the right policies of the Croatian Democratic Party, voting in majority for a regional alternative on the first elections, making it their only defeat in the whole country. This has shown to be the right choice for the economy and we could argue that thanks to this, the region has the highest GDP in Croatia, and Uljanik is the only shipyard in Croatia still making surpluses in the years of crisis of Euro. A slight fall of the number of inhabitants during the first decade of independence saw in 2001 58,594 inhabitants living in Pula, which started to grow and today the city numbers 68,000 inhabitants, around 100,000 with its neighbor counties .

All those positive circumstances in relation to the rest of the country didn't avoid the problematic economic situation in the country to affect the situation in Pula during the last two decades. The city has suffered the lack of investments in all sectors, from infrastructure, especially train and maritime transport to education, regeneration of the historic center and touristic infrastructure.
The expansion of the city has been done mostly trough the explosion of private houses creating some new city quartiers on the periphery but we can speak of total lack of urban planning during the first 20 years of independency.

As logically expected, the new formed republic in war took over all the military areas and bases used by the ex Yugoslavian Army and used them during the war years for its purpose, so that the situation with the gulf of Pula hasn't change until 2007, when the army leaves the major part of the gulf after a decision from the president of Croatia to professionalize the Croatian military forces. The question for the future of Pula's bay was born, a question that raised many debates and conflicts, and still has no answers.

PULA IN THE 90s

INDUSTRIAL AREAS

MILITARY AREAS

URBAN AREA

HISTORICAL DEVELOPMENTS

- ROMAN
- AUSTRO-HUNGARIAN
- YUGOSLAVIAN
- CROATIAN
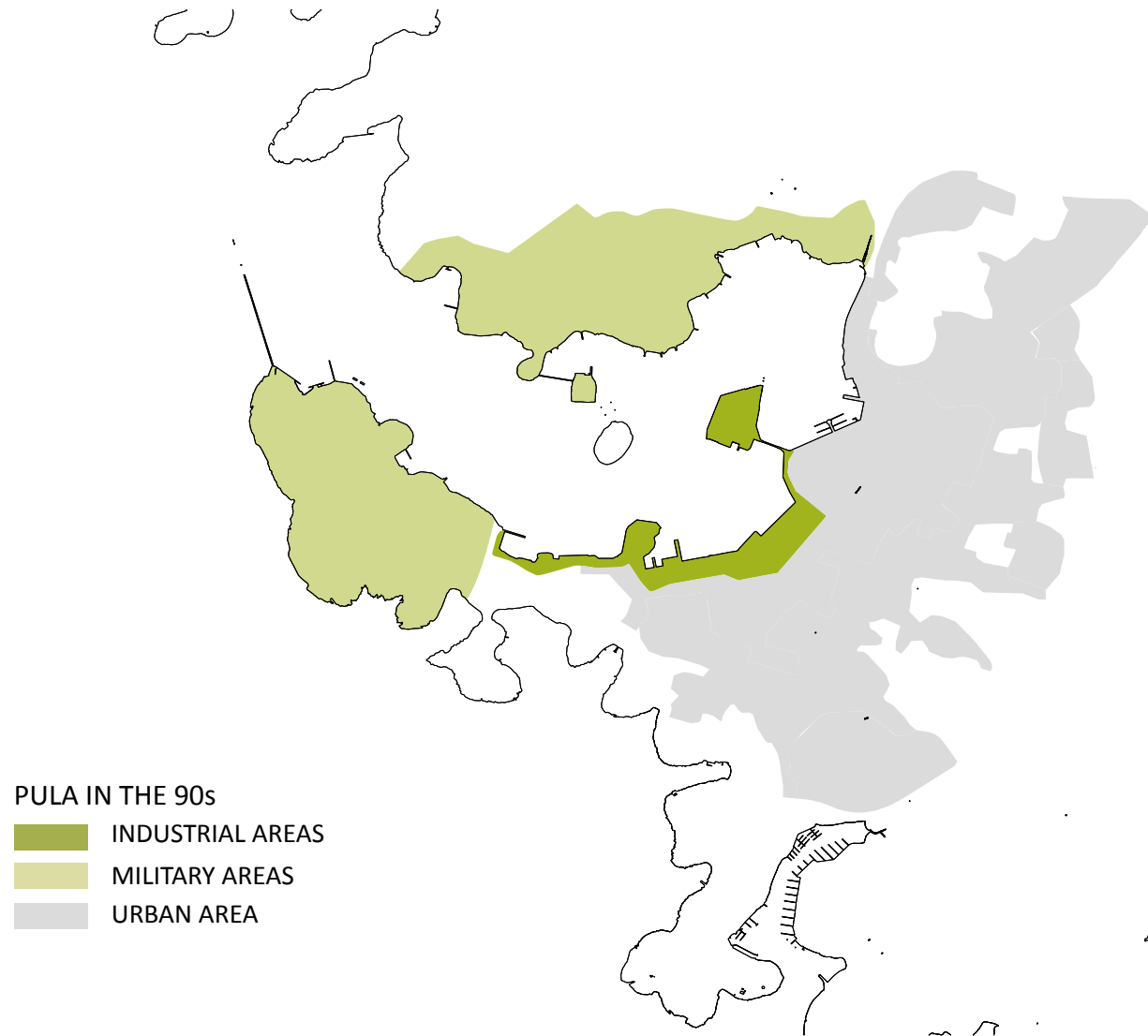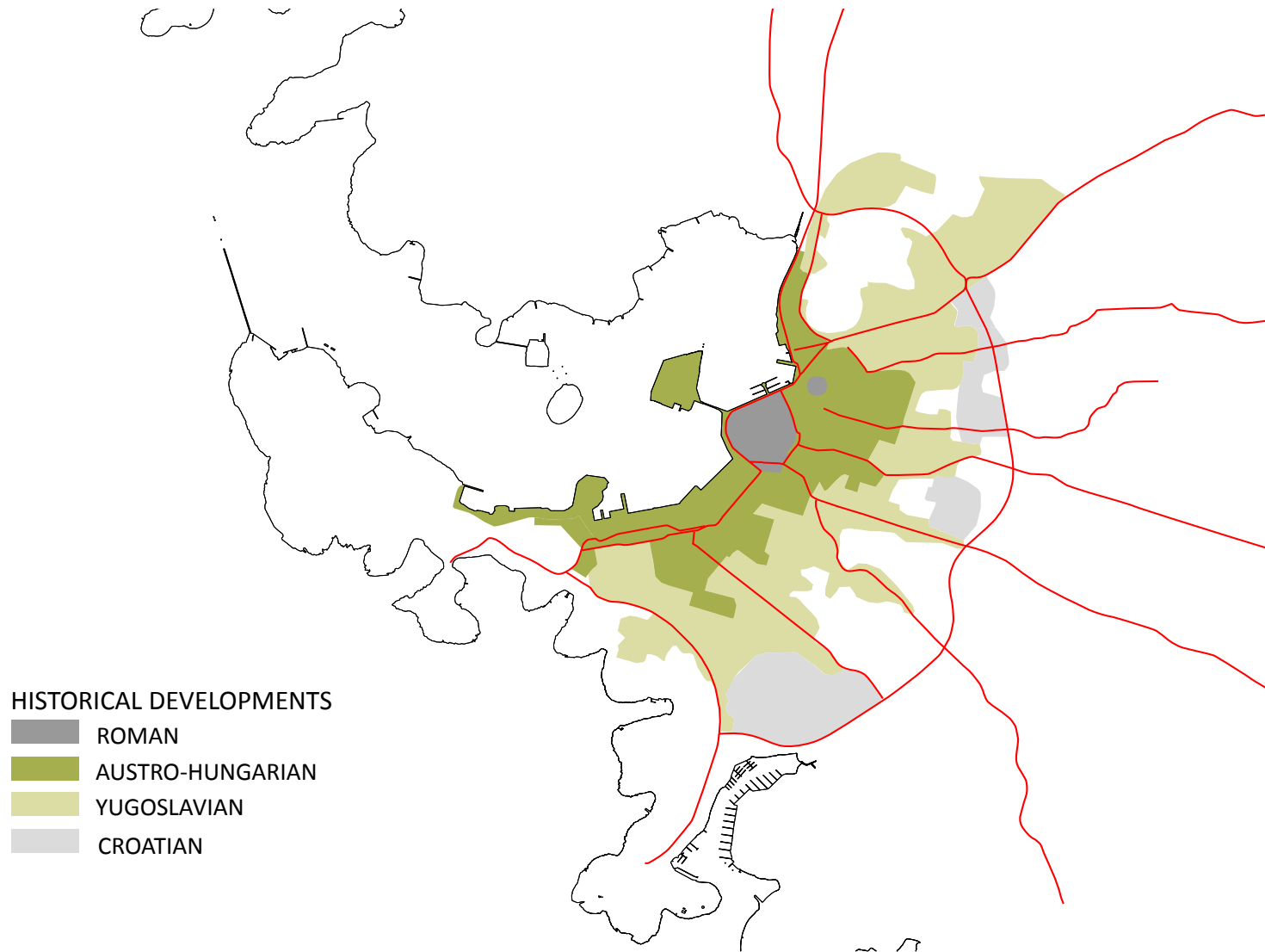
In conclusion one can observe that the city has had 3 development periods: The one in ancient times, during the Roman Empire, under the Austro-Hungarian Dominance and after the World War II, alternated with periods of decay due to dramatic changes of ruling forces. In the last decade, the city is going through a period of stagnation, due to the general catastrophic economical conditions in the country.

Today, with large areas, that can play a strategic role in the future of the city, beeing freed, Pula can expand itself on its bay by creating a new identity. The city can make a new patchwork of functions (industry, tourism, housing, leisure, commerce and work) that coexists creating an image of a city with life by the sea and on the sea, a type of life that was a cornerstone of all primordial civilizations of the Mediterranean.
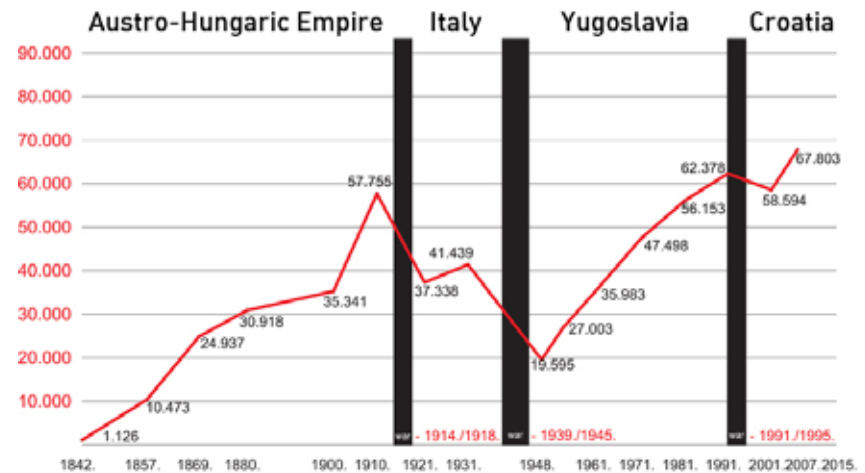
PRESENT SITUATION
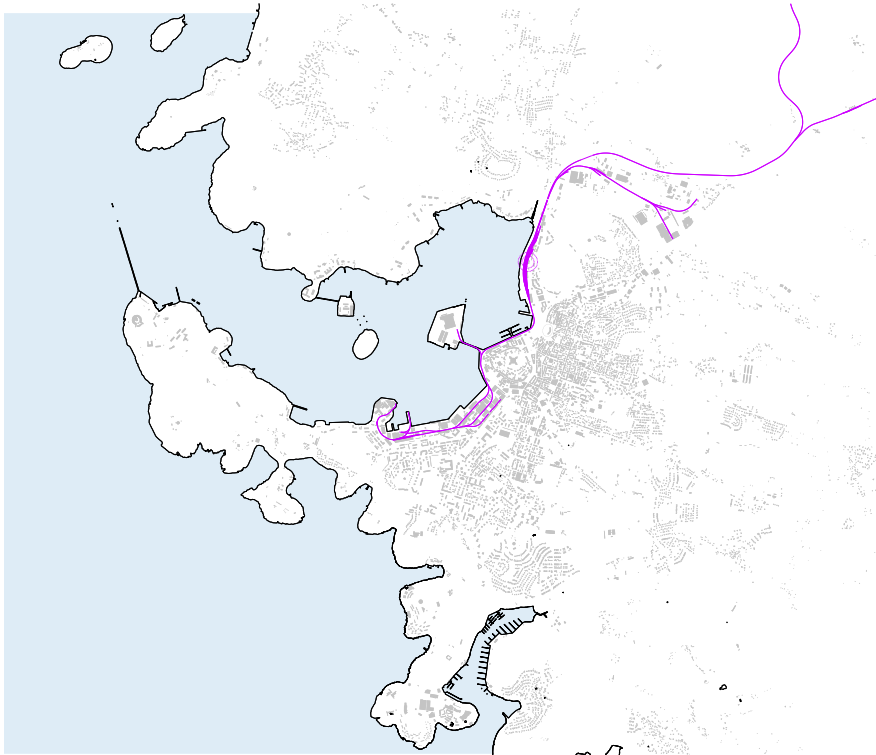
RAIL
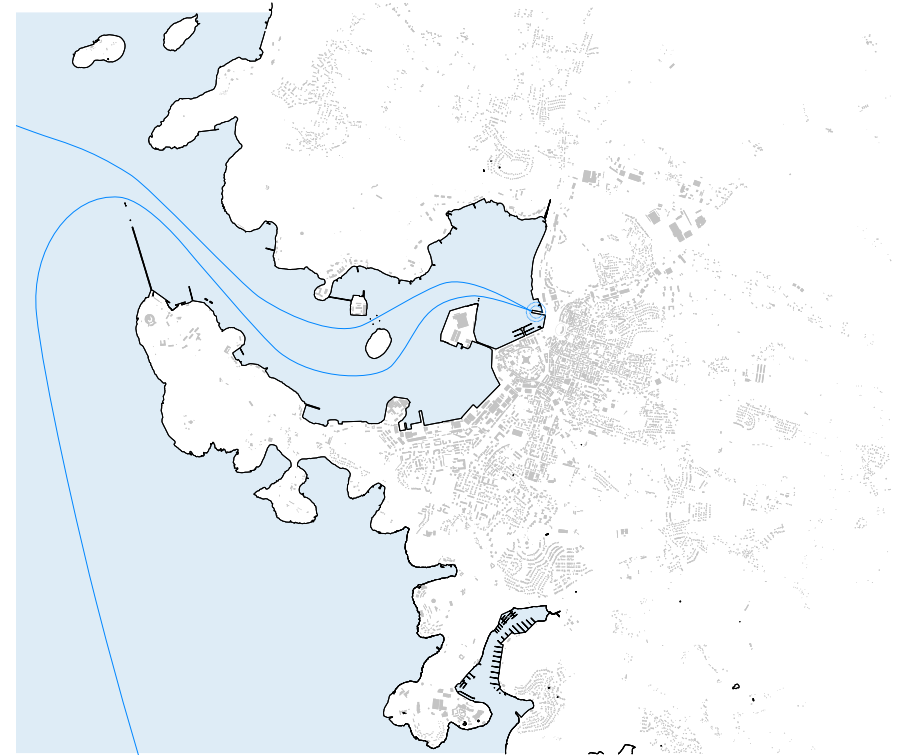
FERRY

INFRASTRUCTURAL
PATCHWORK

The urban area of Pula is a Patchwork of its historical developments and as a history book it shows the different planning strategies in a very unique way. It is a semi-radial expansion of layers from an old ancient center. This kind of development, together with the industrial and military barriers exercises a big infrastructural and affluential pressure on to the center, especially in the summer months, when it is submerged with tourists coming to visit its historical amenities.

If we look at the maps of the infrastructure, especially the streets of the urban area, we can see that all the main radial roads are converging into a ring around the center. Such a situation, although may seem as natural, cuts the city away from its waterfront. Even if the public transport (buses) could be defined satisfactory, there is a complete lack of bike paths and still a strong car usage, typical for smaller cities.

The railway is also playing a major role here, as it runs along the coast parallel with the street to connect the shipyard. The station is situated northern from the city center, where abandoned railway services of the northern coastal area.
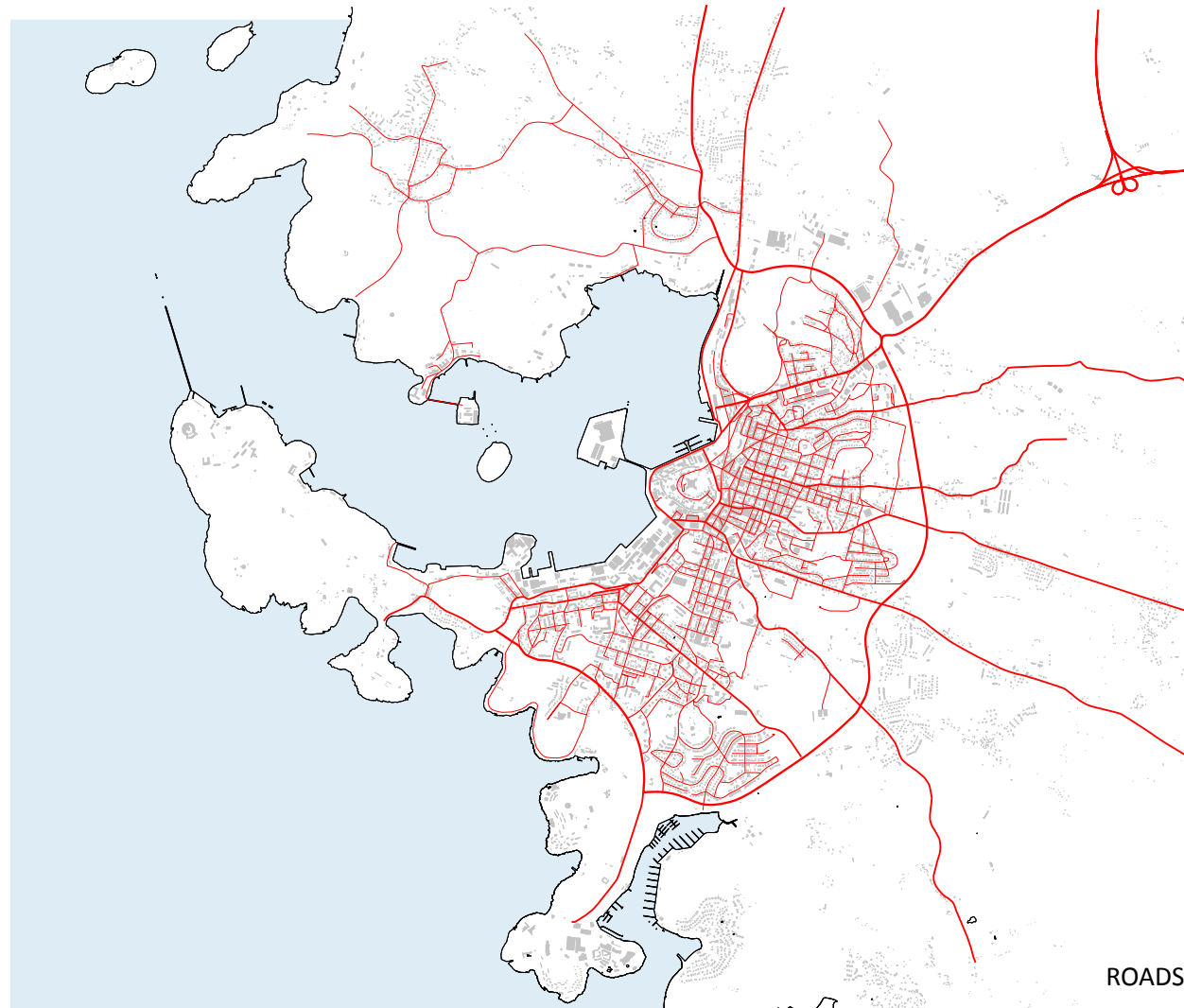
ROADS

STREETS AND PARKING AREAS
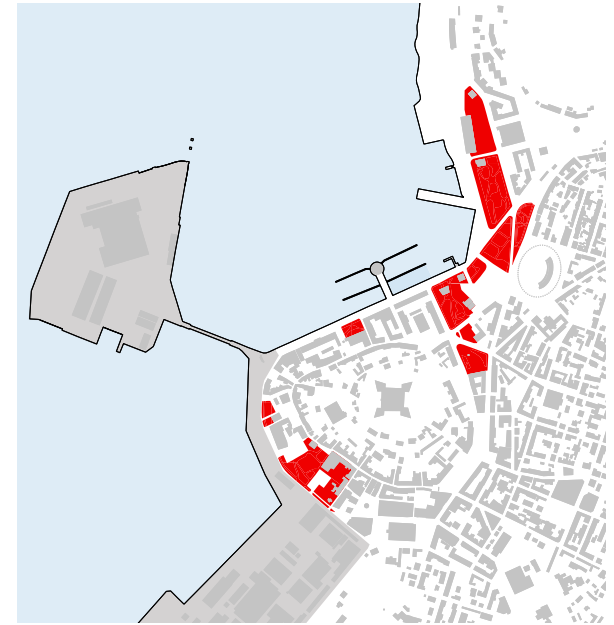
PEDESTRIAN AREAS

GREEN AREAS

Most of the public life and pedestrian routes of the city of Pula are situated on an inner ring enclosing the hill-like town castle. The roman roads today called "Ulica Sergijevaca" and "Kandlerova Ulica" are connecting a series of squares and plazas (Forum, Giardini, Portarata), that are the traditional generators of life in the town. Most of the commercial offer of Pula, the cinema, all of the city administration offices and a large number of bars and restaurants are found here.

It is important to mention that the Forum, the town main square still has the outlines of the ancient roman Forum.

The narrow ascents that radially connect the pedestrian ring to the castle on top of hill top, are usually stone paved and combined with stairs. These very interesting spaces present a lack of any public or commercial offer and are used just merely by inhabitants to reach their homes. Also the touristic offer in terms of hotels or apartments is not present.

Outside of the ring there is the main market place with a closed market and fish market from the Austro-Hungarian times, where still most of the people buy their everyday supplies. This is where even in the summer months one can find a calm and cozy spot to escape the typical tourists routes that characterize the ancient town.

The succession of parks connecting the pedestrian ring to the waterfront are merely originated on the sites where buildings suffered hard bombing attacks. Only the system of gardens around the Amphitheater are planned green areas that are giving space to emphasize the monumentality of this large Roman monument.

STREETS AND PARKING AREAS

PEDESTRIAN AREAS

GREEN AREAS

EXISTING WATERFRONT

As the public life of the city flourish on the pedestrian areas in the old town, we could say that there is a complete missing of those on the city´s border with the sea. The almost 2 km of coast from the Uljanik Shipyard entrance to the enclosed areas on the north, doesn't offer anything worth of staying there. For a better understanding of the area we have divided this waterfront into two thematic units, as there are two different spatial conditions and two different uses of the sea front. One being the part where the ancient town faces the sea, from the bridge to the shipyard island to the passenger pier under the amphitheater, and the other from the pier to the fence of the northern military areas.

The part of the coastal line from the passenger pier to the shipyard entrance, even if free for the public, is mainly experienced by a car, as it presents a total lack of public functions and infrastructure. During the Austro-Hungarian period, this was a commercial port and a large promenade under the roman amphitheater. Today the slice of coast from the street to the water is mainly used for parking. The port is still in use as a fishery port, but the large number of boats completely denies the view toward the see and bay.

10m
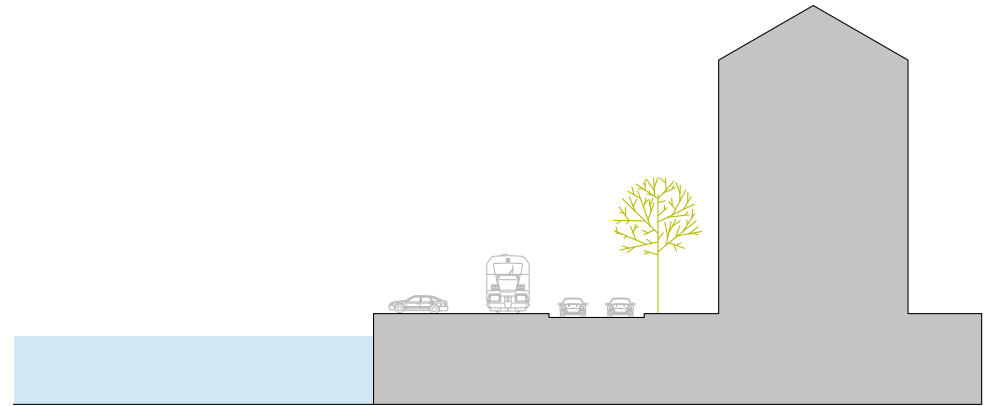
SECTION OF THE CITY´S WATERFRONT
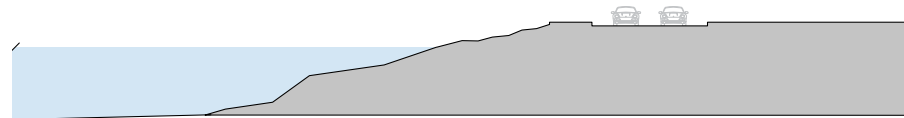
The northern waterfront, from the passengers´ pier to the closed area of the ex military base Valelunga, is   completely occupied by the infrastructure. Large railway services that were the vein pumping pula´s development during the Austro-Hungarian period by connecting it to Vienna, are today mostly abandoned, due to the complete lack of investment from the Croatian authorities into railway transport. Also, the original station, finished in 1876, was merely a freight station with classification yards that are nowadays completely unused. The coastal line here is also occupied by a busy street, which is connecting the center directly to some satellite settlements and the countryside. In the sea, along the whole area, illegal docking of small boats has been very usual during the last years.

10m
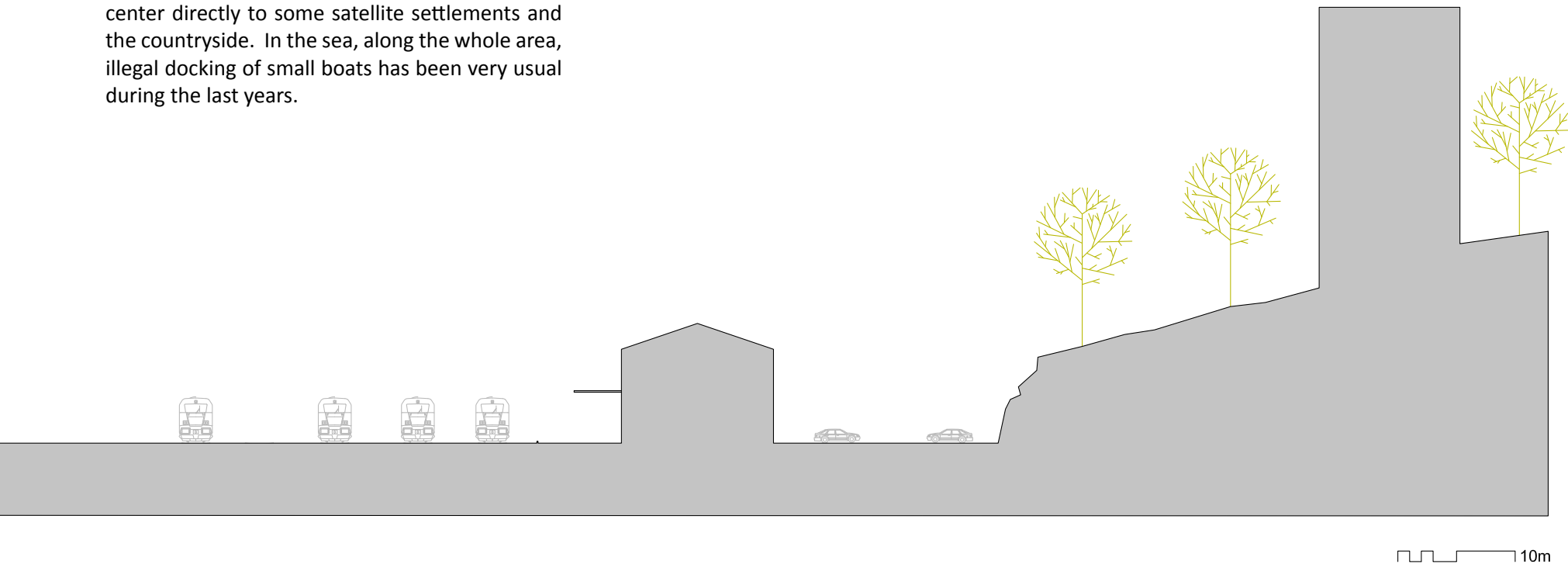
SECTION OF THE OLD RAIL STATION WATERFRONT
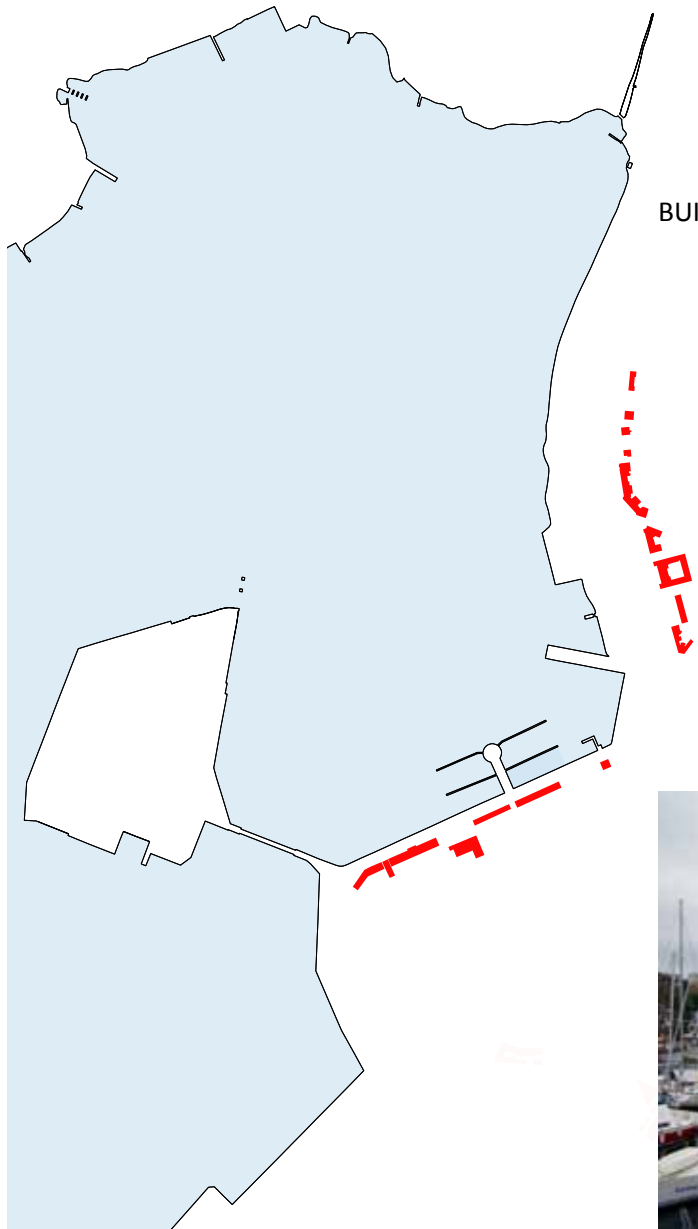
BUILDINGS ON THE WATERFRON`T

Another obvious anomaly of the Pula´s sea front is the missing of buildings and objects oriented to the sea. By taking a look to the buildings that are building the front in the first zone there is one building that is catching the eye: the 6 storey high residential building from the Croatian architect Kazimir Ostrogovic, finished in the 1956. The intention of the architect was to design a modern building with a high ground floor to store commercial and public activities. Today those spaces are mostly empty, or changing function constantly because the area has become very unattractive. The other buildings in the row are mainly offices mixed with a small number of housings, and a now-abandoned clothing production plant, the "Stabsgebäude" (the former Austro Hungarian navy headquarters). None of the buildings present any commercial or public activities on the ground floor.

On the other side, another Building stands above the others, the neo-baroque Riviera Grand Hotel, erected between 1908 and 1909. The Hotel is nowadays rated with two stars and desperately needs a restoration , but due to the unattractiveness of the area today, investments on touristic concerns are always spent elsewhere. The other buildings in the zone are all housing blocks, but with no public or commercial activities on the ground floor. Also, the buildings of the zone are cutaway from the coast by an alternation of to or three streets, the railway and the parks with large trees so that most of them does not even have a view to the sea.+

Another great problem in the area are the discharges of untreated wastewater directly into the harbour. More than 70 % of the city let its wastewater out in the bay with 40 direct discharging units, the only exception is the industrial area and the new erected quartiers in the south that has a developed wastewater collection system. Pula discharged directly in its harbor around 5000 m3 of wastewater per day. Today.

It is not hard to imagine that such a polluted water, sometimes spreading very unpleasant odors, is a considerable brake in the implementation of any development project on the coasts of the city sea front.

 In 1998, The city has started a project of building a coastal collector to develop a new wastewater system so to eliminate the discharge in the waters of the bay. The project is today almost finished, so it will be easier to think about a new development and re qualification of the coastal areas inside the gulf of Pula. A clear and healthy bay can become the main motor for the future of the city.

MAIN PROBLEMS

It is clear that there is a anomalous relation between the city and it´s sea, derived by more independent factors that have distanced the life of Pula from it´s waterfront and forced it to create other scenarios. The inhabitants have created other focal points inside the old city, as like the walls that once surrounded the roman town have never fallen, leaving the coastal areas in total degrade to an exclusive use for cars and infrastructure.

To summarize the problems and lacks of the active sea front of Pula, is the initial point of the aim of the rethinking. To create new life on the edge on the water, it is crucial to understand the unrealized benefits of such a potentially attractive area. To be able to do the right choices if we were in the position to create a new relation between city and water, we listed the main problems of the situation in Pula.

- NO OPEN PUBLIC SPACE: The complete lack of public space in favour of car parking zones is the main reason for the negative situation on the sea front.

- NO LEISURE FACILITIES: The lack of leisure functions, leads the inhabitants to move on the outside coasts to spend their free time.

- NO ENOUGH HOUSING: More housing with view on the bay could improve the image and the attractiveness of the city.

- NO COMMERCIAL OFFER: More commercial activities could attract more people to explore the area.

- NO PUBLIC AND CULTURAL FACILITIES: Attractions like museums, universities or other institutions are very important in creating life and space on degraded areas.

PROJECT

200m

PROJECT AREA

If we suppose a future development of the city on the ex military areas, especially coasts of the bay there is a strategic area that plays a crucial role in the connection of those with the existing form. After some minimal interventions on the southern part in form of expansion of the coast to create a public promenade and the complete elimination of parking form the zone, the part of the waterfront from the passenger pier is the link to new scenarios and projects on the whole bay. The area, characterized by abandoned railway services and complete disuse is the first step in the citiy´s expansion for many reasons:

1. As one of the main entrances in the city, interventions in the area could solve and rearrange some crucial transport problems by offering new parking spaces and by reorganizing the railway and maritime transport exchange into one. That is fundamental for solving some crucial problems but also to prepare for the future.

2. The area is very close to the city center and should be it´s natural extension in terms of pedestrian routes and public activities.

3. The complete disuse of the area offers the possibilities for the architects to a complete transformation. There is the opportunity to create all those conditions, which are currently missing, that would originate a new urban life on the waterfront, and resew the city and its coast.

The highlighted area measures around 165 000 m2, and involves 1080 meters of existing coast.

The area is a coastal plateau situated under the hill "Monte Ghiro", on the top of which we find the central cemetery of pula. On the first level above the plateau residential buildings have been built in southern part near to the center. Those found themselves in a very favorable position, as they have a complete orientation toward the bay and the sea, but are completely cutaway from the coasts by the rail and a steep level difference.

On the northern part, the abandoned city mill and the storage silos are found. The Northern edge is occupied by an area of wild vegetation, the beginning of the wood of the large natural reserve of Valelunga and Monumenti.

The two main streets in the area (Ul. Svetog Petra on that runs along the coast and Trscanska Ul. that encloses the area on the upper level) are only two important roads for the city and are only connected in the center under the amphitheater. Their only connection is the ul. Riva, which than continues on the sea front of the historical center. This implies big problems for the traffic in the city especially in summer months. On rainy days when a lot of tourists from holiday resorts around the city decide to spend the day in town, those three roads are completely blocked. To resolve this issue, the regional public transport has to be improved, and there has to be a possibility to leave the car outside of the critical areas for those who are only on visit.

PARTIALLY ABANDONED INDUSTRIAL MILL

RESIDENTIAL

RAIL STATION AND SERVICES

EX MILITARY COMPLEX
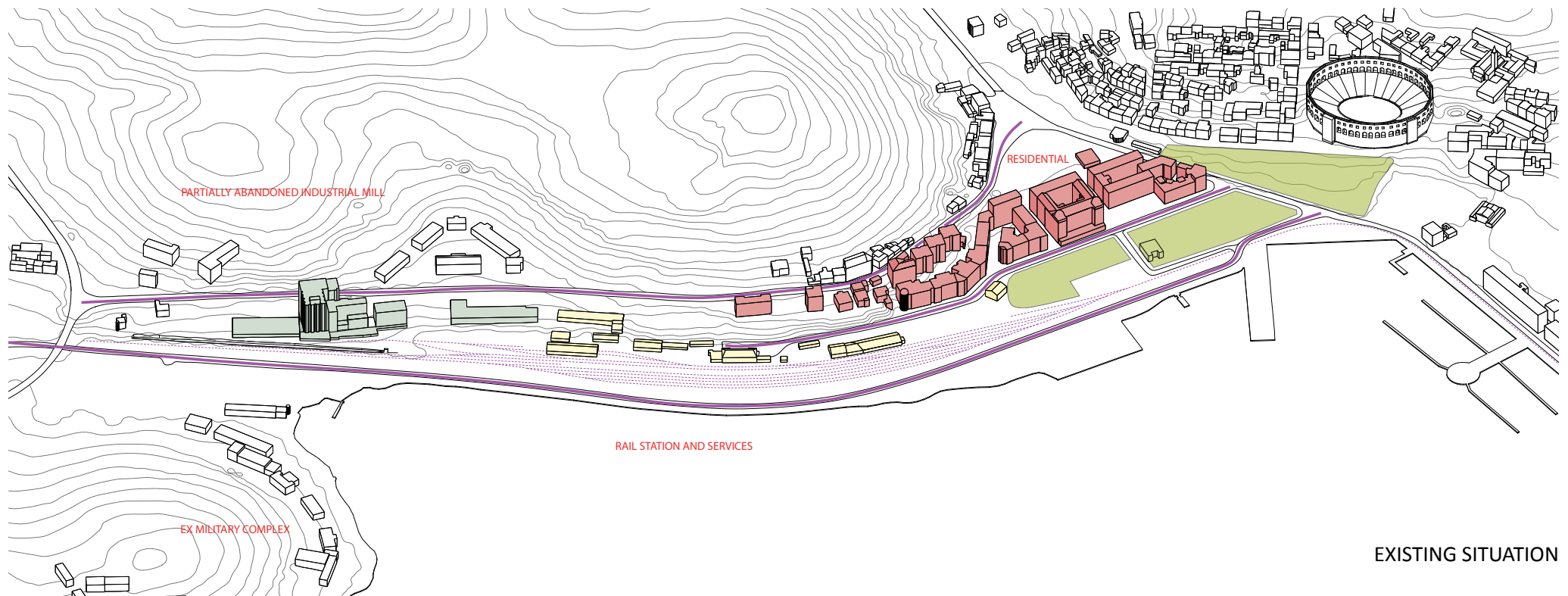
EXISTING SITUATION

INSPIRATIONS

RIVA SPLIT, 3LHD, 2005

The renewed Riva, a focal point where the city meets the sea, is a large public open space. It is a promenade where the public often spend their time and socialize, but it is also the main square of the city and space for events, parades, festivals and celebration. The built front of the old historic center and the Diocletian´s Palace, create the background and the Riva is the stage for various scenes.

RIVA ZADAR

The waterfront of the historical center of the city of Zadar in central Dalmatia is just a ca. 1 km long constant walk on a promenade along the coastal line. The promenade is separated from the city built front by a series of parks and calm green areas and doesn't offer any commercial or public functions.
Still, it is the favorite place, for the inhabitants of the city for contemplating the sea and spend some of the free time.

TEL AVIV PORT, Mayslits Kassif Architects, 2007

The project transforms a neglected Tel Aviv Port into a vivacious and prominent urban public space. It´s wooden dunes and urban furniture functions as invitations for various interpretations and uses of the waterfront. The project completely rejects development schemes or market forces and creates a completely collective public space, an urban platform for public, social and political activities.

INFRASTRUCTURE

REGIONAL
AGRICULTURAL CENTER

TRANSPORT
EXCHANGE
TERMINAL

NEW DEVELOPMENT

INFRASTRUCTURE AND CONCEPT

The first step in creating a the expansion and a new program in the area is the reorganization of the transport infrastructure in a way that it becomes more efficient and it liberates maximum space on the waterfront plateau.

It is imagined that the freight station and all the abandoned services are removed outside of the central area, and only the passenger station with 4 platforms brings the passengers into the town. The railways and the street that runs along the coast is pushed back right under the slope of the hill and a new coast line is drawn. With this act the promenade from the city center can be extended here and, in the future, connected with the new bay areas.

Also, an underground parking garage is found in the hill at the level of the waterfront plateau, accessible from the street that runs in front of the existing housing block, and from the upper Trscanska ul.

The creation of a passenger transport exchange terminal that would unite under one functional unit the railway station, the ferry port and cruise terminal, and integrating it with the local public and private transport. This multifunctional hub has to be integrated with the new promenade, and functions on two levels: the ground floor is occupied by the railway station, the promenade and the cruiser terminal, the underground level with the street and the car waiting lines for the ferries.

On the other pole of the area, another attraction is foreseen. A regional agronomy center is a educational and research complex specialized in the fields of the local agriculture. It is tough to benefit the whole Istrian region with a university, laboratories and workshops to improve local food production, but also to play a important role in promoting the products to the local population and, especially, to visitors. In a second phase it will implement the refurbishment and reuse of the abandoned mill and silos to create, with a series of experimental gardens in the demilitarized areas, a incubator for the development of the economy.

The housing strip upon the upper level can be extended to the mill to create a new attractive zone with a view and orientation to the bay, proximity of green areas and underground parking. We will call this area the upper plateau, on a level of ca. +6m, that also needs to be connected directly for pedestrians to reach the waterfront plateau.

The re implementation of the tramway line to connect the new centers on the bay coasts is here divided in one direction parallel with the new road, and the other direction on the upper plateau.

On the lower level, between the transport exchange terminal and the agricultural center, a complete new scenario is possible. The area, now fronted only by a waterfront promenade offers the possibility to design the spatial conditions that the city has been lacking when speaking of life on the sea front.

REGIONAL AGRONOMY CENTER

TRANSPORT EXCHANGE TERMINAL

THE BAY PROMENADE

PEDESTRIAN ROUTES
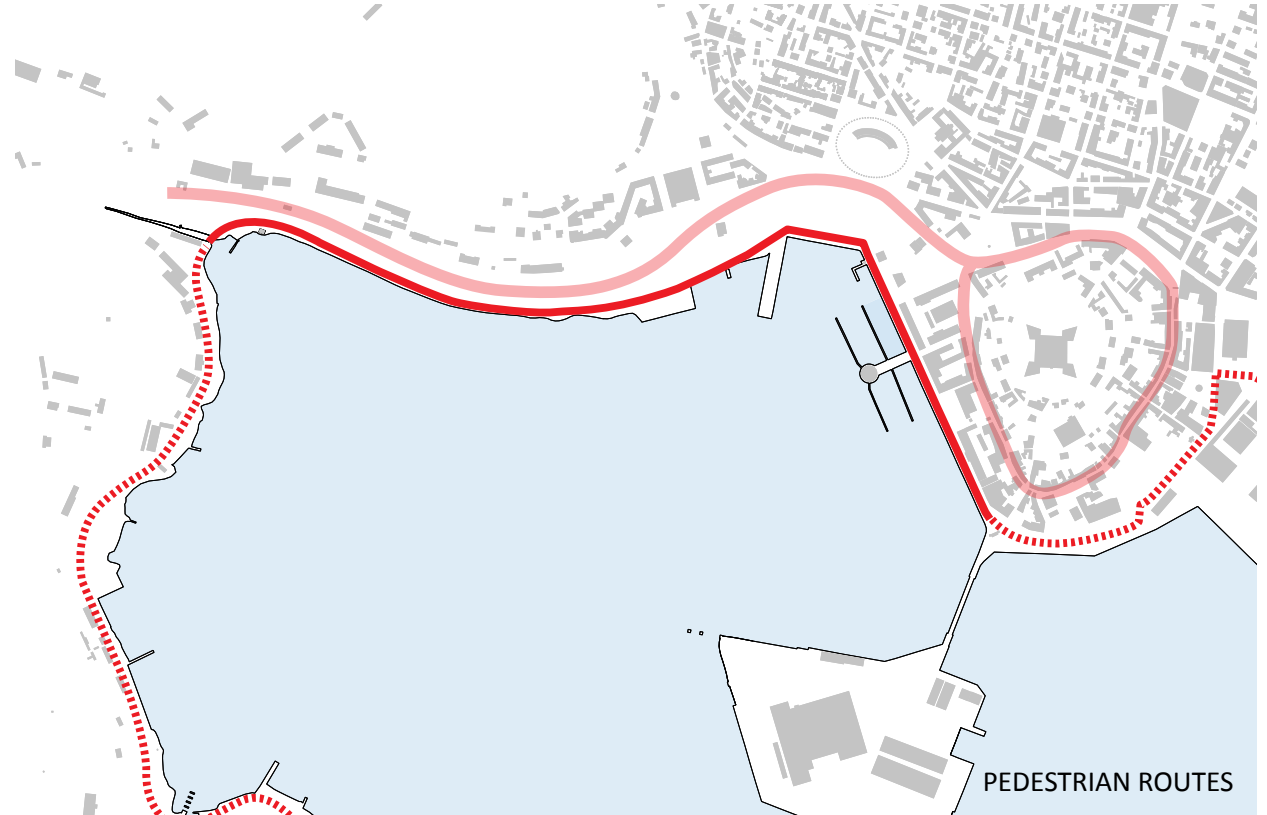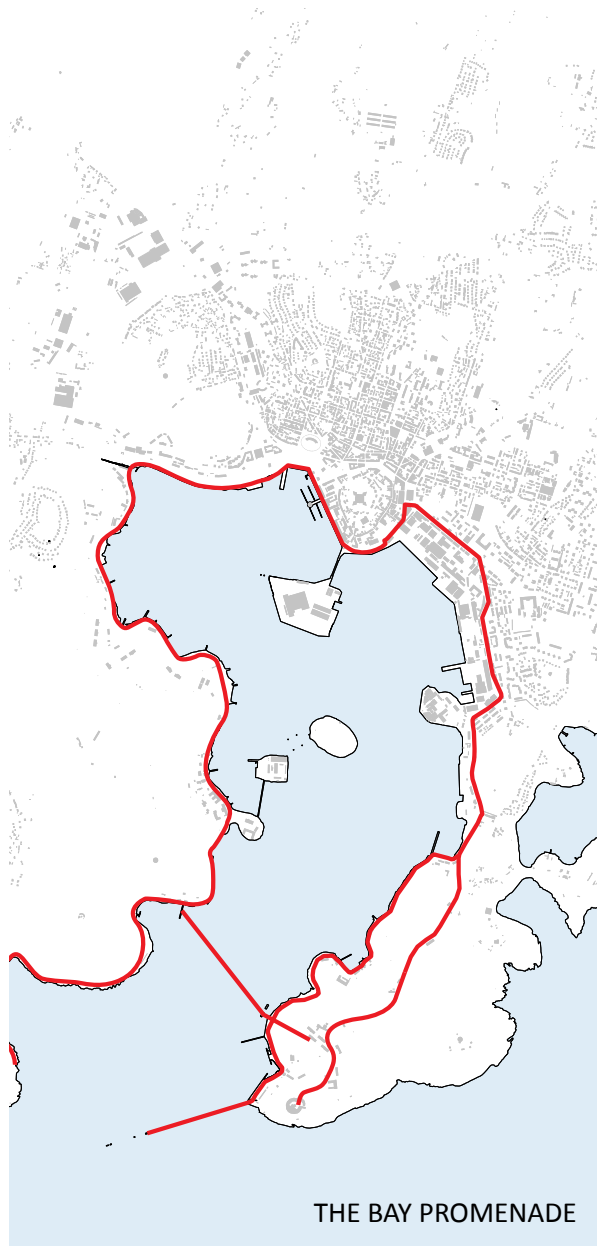
The functional program involves a continuous strip of commercial and public activities on the ground floors. Those are opened to a large public space facing the sea, but also to the street to create a vivacious scenario. Upon the large ground floor pedestals, another type of open space is created: an alternation of public and commercial activities mixed with living and working would still attract visitors, but should also leave space for the inhabitants to find their more intimate atmosphere in everyday life. With bridges across the large infrastructure strip, the level is directly connected to the upper plateau under the Mt. Ghiro. The buildings that sprout from this urban landscape, house a mix of temporary and permanent dwellings and offices to guarantee life and density in the neighborhood, and to seize the opportunity to originate everyday life situations on the edges of the water. The main aim of this re-qualification project is to design the open spaces and to create a urban landscape that could house an infinite number of activities and possibilities along the coast: from children playgrounds to nightlife, from resting areas to sport facilities.
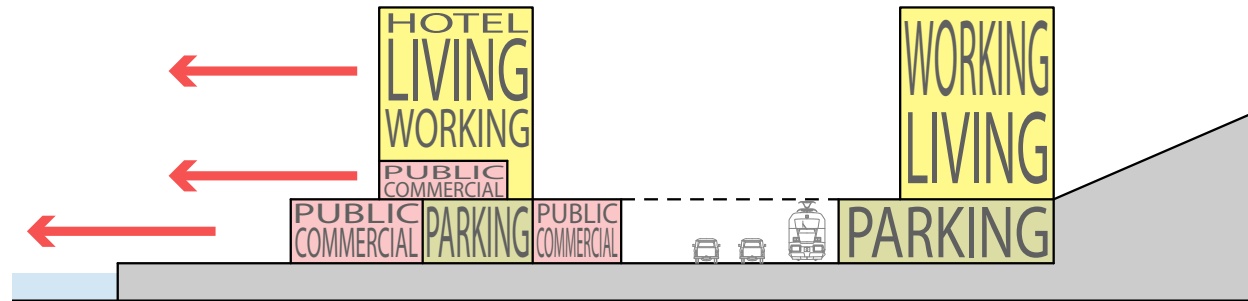
CONCEPT SECTION

FUNCTION MIX

THE WAVE

To design a dynamic sequence of different spaces on the waterfront, a wavelike flow is drawn in the plan. It is a connection path between the historic center and the gardens of the regional agricultural center that interweaves around the waterfront promenade. This new form intersects the edge promenade and blurs the sharp boarder between sea and land by interweaving them together in a unique whole. This is achieved by bulges of different character on the water and land, whose alternation gives a whole new life to the waterfront area.

The wave that defines the open spaces, is followed by another wavelike change in elevation of the terrain that provides space for a continuous ground floor show-window for different commercial and public spaces on the ground level, but also gentle ramps for reaching other public areas on the first floor above the ground. The front line of this alternation of ground floors is generated by the wave flow which is generating the different scenarios on the promenade, which is also in a way cutting the this landscape pockets. Those "pockets" are essential for the project because they carry the identity of the concept, are visible from the far and attract the visitors to explore the area. They also serve as containers for parking and services to avoid a construction of an underground level in proximity of the sea edge by connecting more buildings into one functional block. With the help of a parametric design tool "Grasshopper", a system of hills have been modelled from a black and white image.

To create a constant dynamic front facing the sea, the artificial landscape elevations are cut by an offset line of the wave that shear the waterfront edge. The offset is not a constant distance offset, but it follows the dynamics of the wave to have larger distances on focal areas. On the street side, the pockets are cut parallel to the street to form the sidewalk front. On the street side those fronts can also house commercial activities to give the street a vivacious character, and not to exclude it from the new activities.

WAVE-FORMED AREAS

MARKET

RESTING AREA

PALMS GARDEN

CHILDRENS PLAYGROUND

WATERFRONT PAVILION

OLIVE GARDEN

SAND BEACH

SUN BATH

PLEASURE DOCKS

CITY BATH

BLOCK-FORMED SPACES
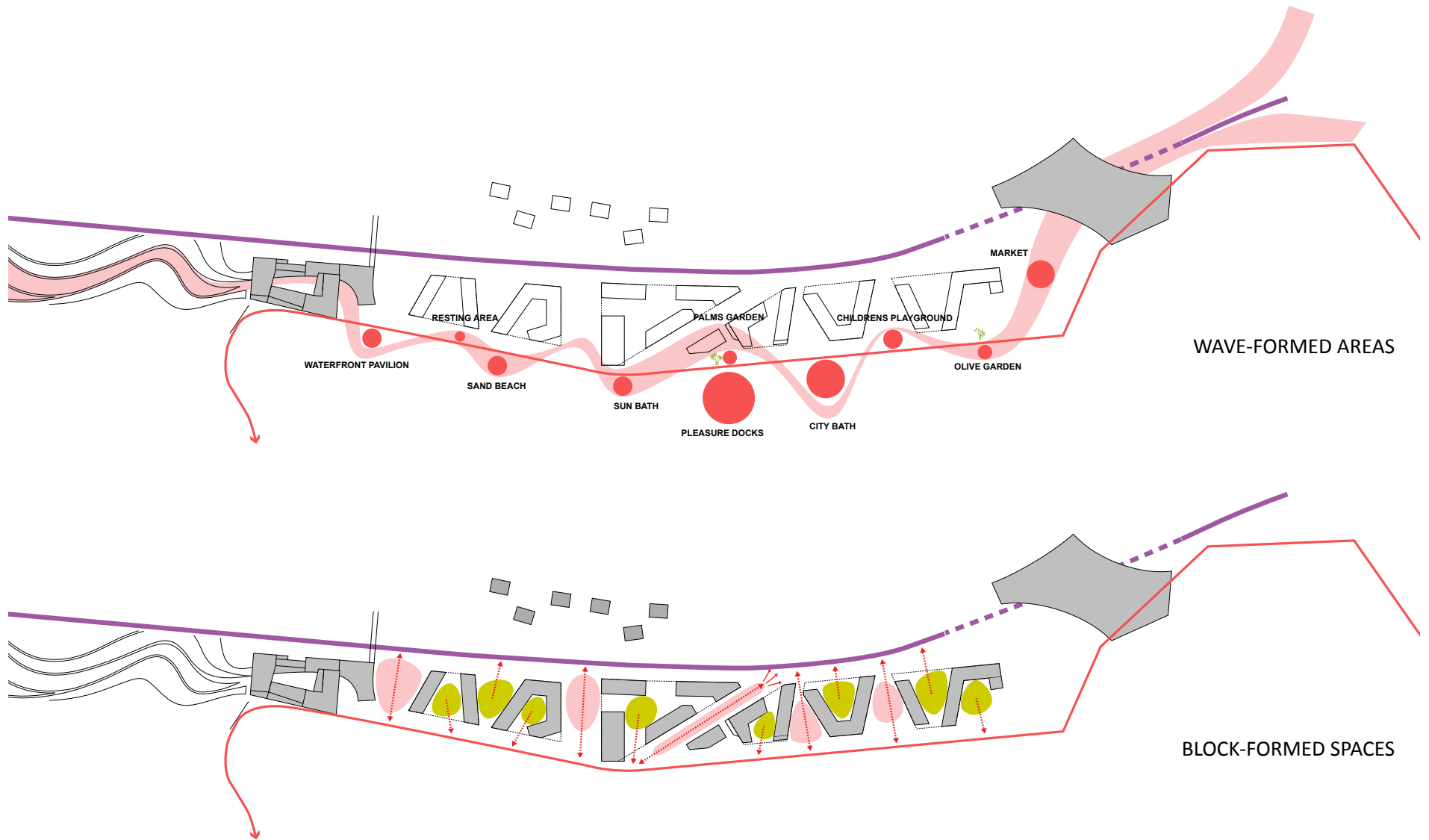
OPEN SPACE STRATEGY

The different characters of the waterfront area, that is supposed to be a urban beach, are defined by the wave that blurs the border between water and sea. In this way the focal points of each new urban space is found in the recesses of the coast, but also on the water, beyond the frontline.

THE MARKET - a market for the local producers, helping the new Agricultural hub to promote the products in proximity of the passengers center.

OLIVE GARDEN - a resting area characterized by Mediterranean spices and scrubby vegetation, with olive trees. Pleasuring the senses with scents, colors and sounds of loud crickets.

PLAYGROUND - an area for the small ones, detached from the sea by the promenade to offer more security.

CITY BATH - in the central part of the area, the wave´s oscillations are greater and the relation between sea and coast are more intense. The city bath is a swimming pool enclosed between the promenade and the wave that in this part becomes the deck of the pool.

PALMS GARDEN - The palms garden offers an area that maintains it´s green character during the whole year, and functions as a socializing sitting area in the elegant shadow of palm trees.

PLEASURE DOCKS - Part of coast complemented with floating docks with restaurants, bars, and event spaces take place. Small floating islands, some of them gardens, offer numerous other sceneries. This is the most vivid part of coast, separated from the housing blocks by the palms garden.

SUN BATH - unlike the pleasure docks, the sun bath steps offer a contemplation area to observe the sea and enjoy the sun, in a more peaceful environment.

SAND BEACH - a wave filled with sand for resting, sport activities or games, parties or events.

RESTING AREA - a zone in which the wave creates a widening of the waterfront, where bar terraces , sitting stairs, trees and colorful shading elements form a pleasuring resting character.

WATERFRONT PAVILION - a multifunctional pavilion beyond the coastal edge.

EXPERIMENTAL GARDENS - the wave between the gardens of the agricultural center, moving away from the waterfront in the direction of the land indulging visitors to explore the gardens and products of the region.
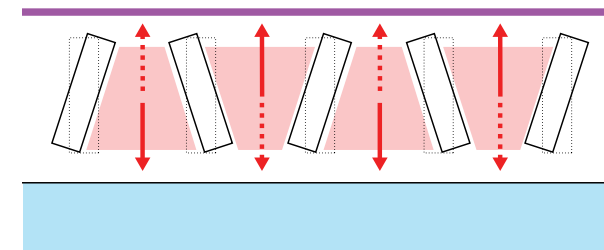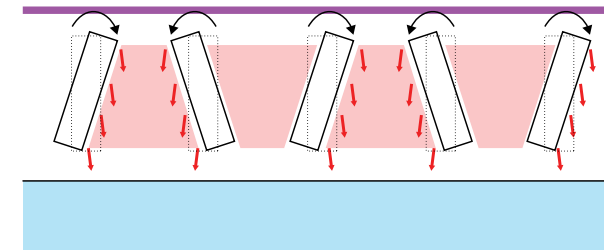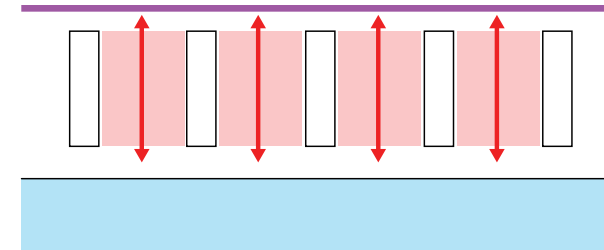
BUILDING ORIENTATION DIAGRAM

The upper plateau is connected to the waterfront area by tree pedestrian bridges: two are extensions of the ground floor landscape hills, and one is part of the agricultural center. The latter connects the old silo to the new spaces build on the seafront.

The higher buildings are positioned to create a system of triangular spaces between them. The direction of the new buildings on the waterfront is taught in a way so that they could enclose a new system of public spaces that would all be connected by a waterfront promenade. This can be achieved only by parallel blocks facing each other. To assure a better view of the sea, and promenade those have been slightly rotated around their center. This leads to the situation that the spaces between them differ in those more related to the sea and those who are open to the street. This configuration group the buildings into 6 blocks sharing a ground floor. The spaces that they generate in the blocks and between the blocks differ spatially in orientation and height. The system generates public spaces on the lower level, that directly connect the street to the sea, and others, on the upper level of the hills, which are mostly occupied by green surfaces and gardens. Those are public and accessible areas but mostly reserved to the inhabitants, as there are only commercial activities planned on some points facing the sea or street. The spaces in the blocks, differ from each other in orientation due to the position of the housing buildings. Some are oriented to the street and some are open to the sea.

The facades of the blocks facing the sea form a continuous front with a straight cut line parallel with the promenade. Only in the center of the area, a horizontal object comes out of the front lines and it is where the culture block is planned. A city museum and a multifunctional events pace works here as an additional attraction.
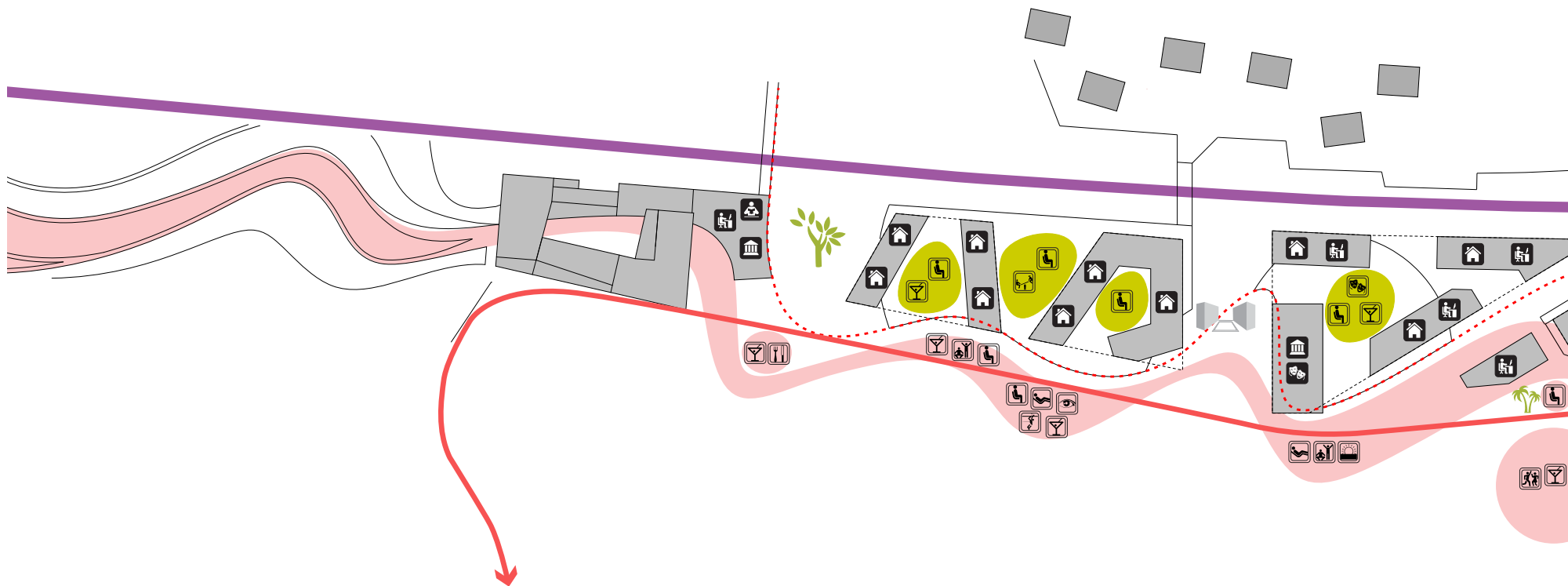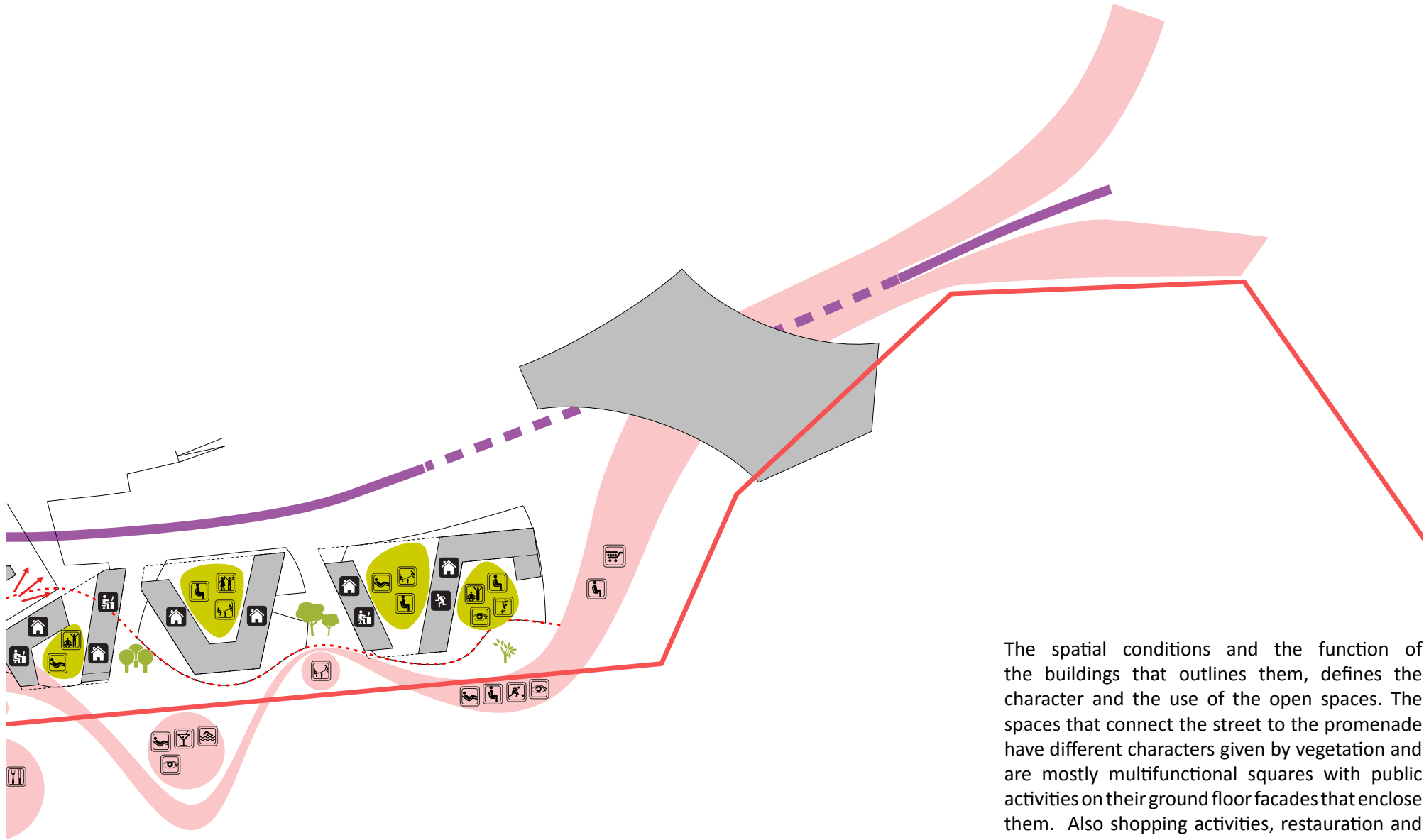
The spatial conditions and the function of the buildings that outlines them, defines the character and the use of the open spaces. The spaces that connect the street to the promenade have different characters given by vegetation and are mostly multifunctional squares with public activities on their ground floor facades that enclose them. Also shopping activities, restauration and other public activities like sports or kindergartens are present in all the spaces inside the landscape.
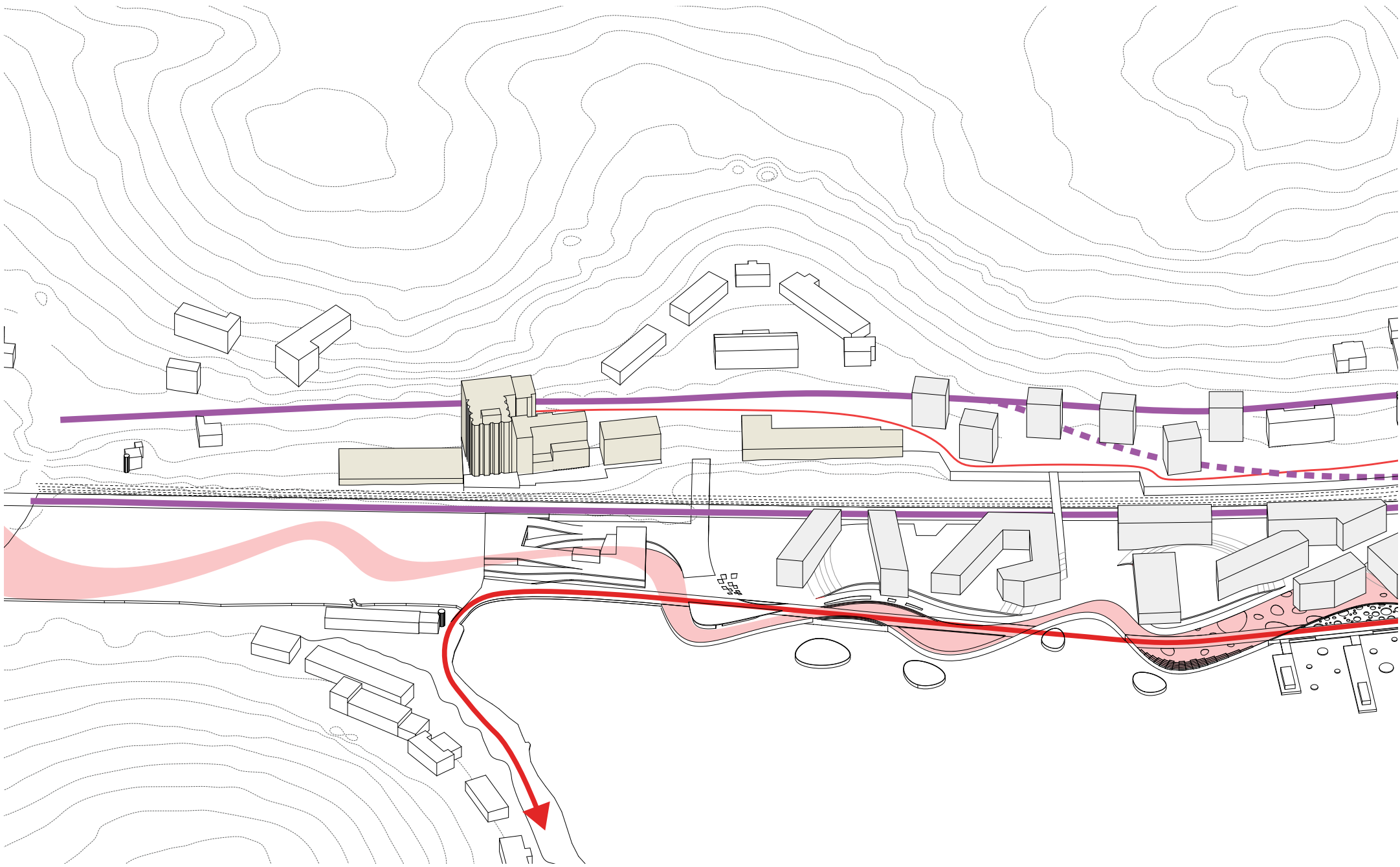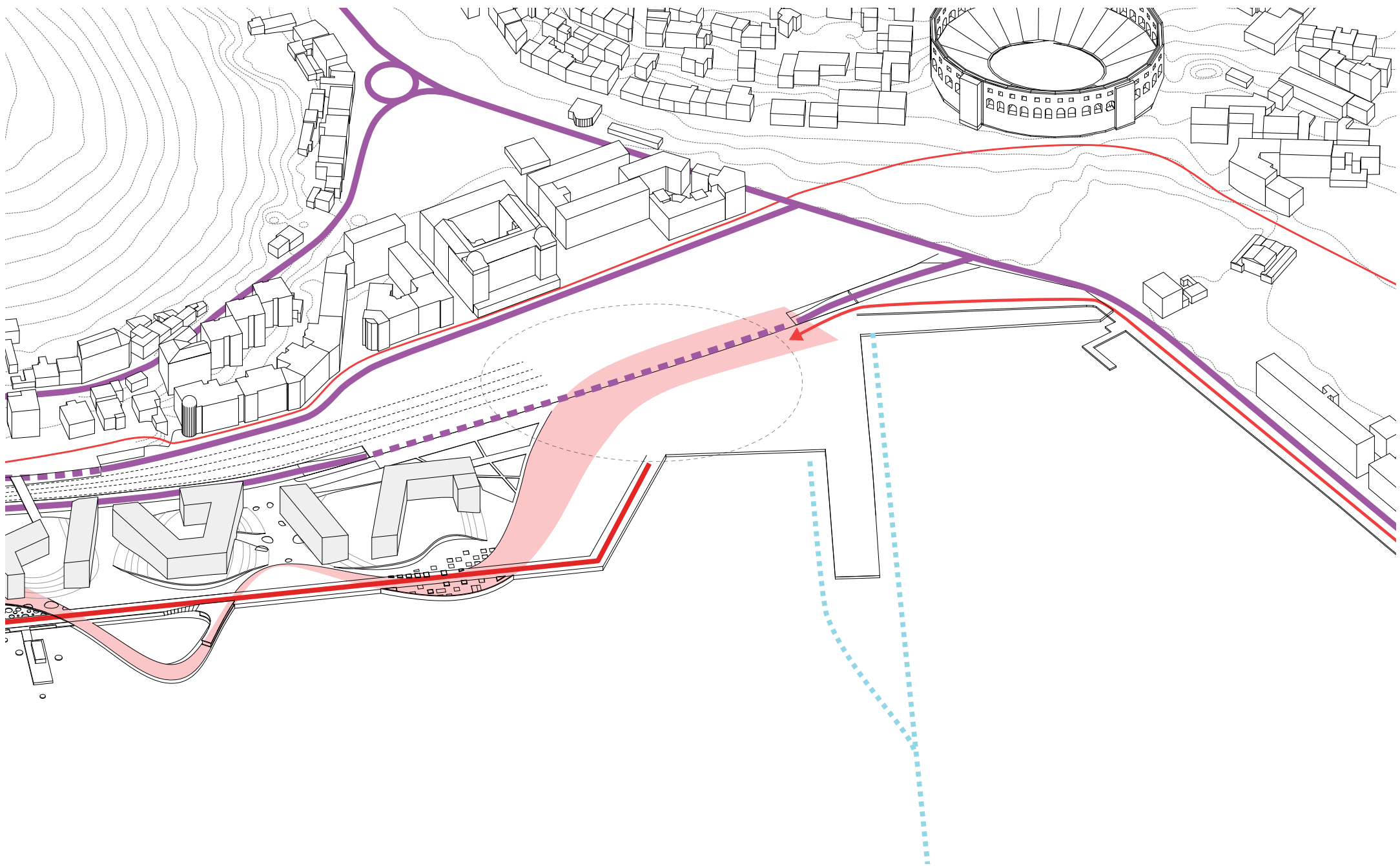
MASTERPLAN

The plan for the new waterfront district includes a straight promenade, 20 meters wide that defines the boarder between the sea and land. The white stone paved walk is interrupted in the center near the cultural center (1), where the water enters in the land and forms the main square. The cultural center includes a cinema and multifunctional auditorium, the city museum and galleries. The main square is connected physically and visually to the upper plateau and to the green hill behind the area. The waving on the floor is achieved with different materials, mainly white and gray stone, materials already in use in most of the city pedestrian areas.

Also, new activities on water have been imagined, such as a floating beach (2), a new docking system for small boats(3), a dock for rowers and surfers (4), multifunctional floating islands for various events and leisure(5), the floating and underwater gardens of the new educational institution(6).

PLANIMETRY

A|--------------|A

B|--------------|B

C|--------------|C

D|--------------|D

E|

|E

|F
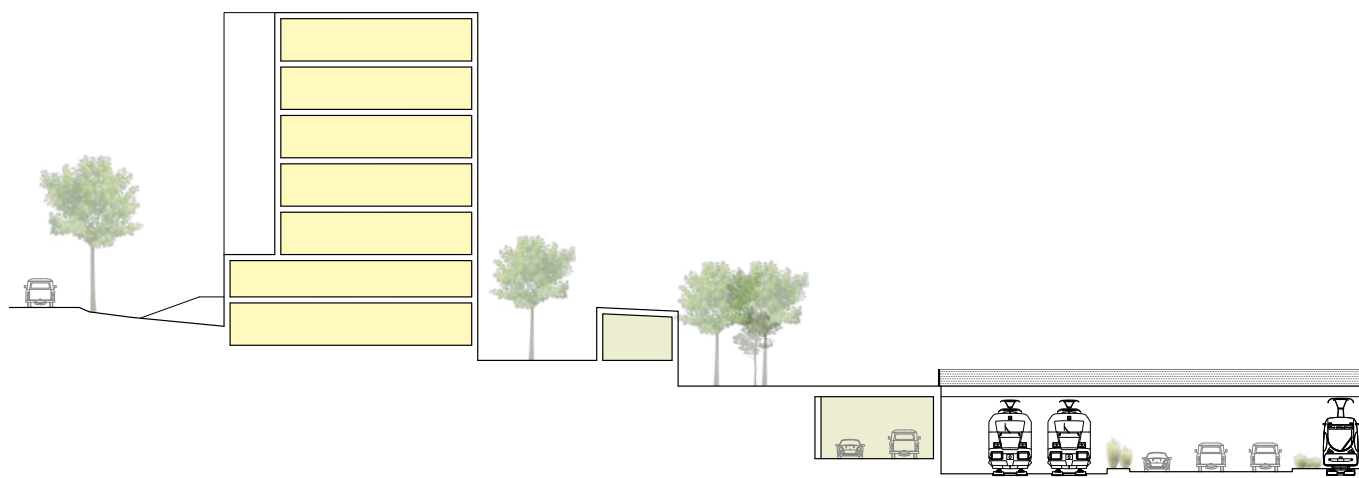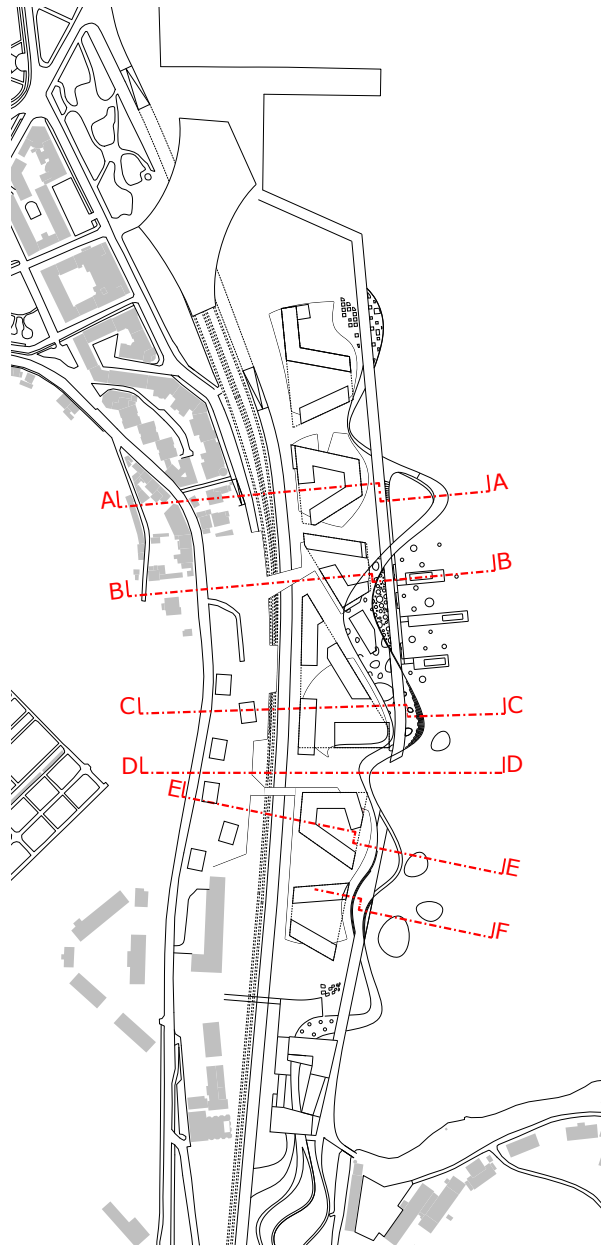
HOUSING

STREETS AND PARKING
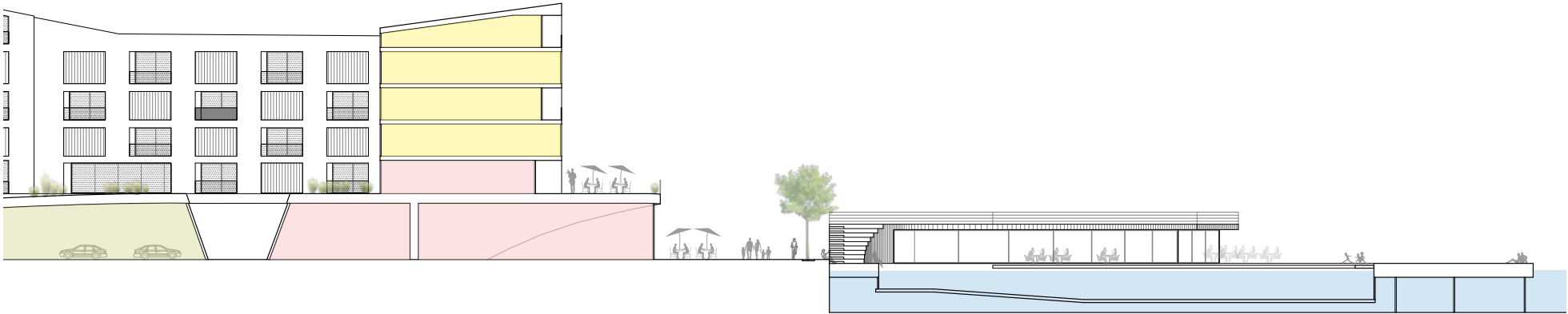
PUBLIC ACTIVITIES

SECTION A (1:500)

SECTION B (1:500)
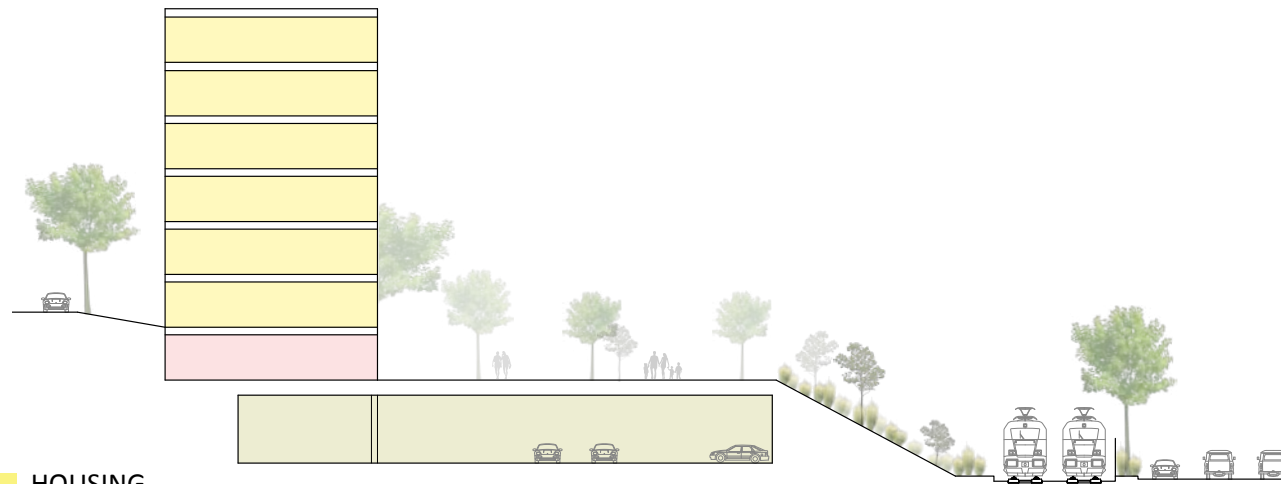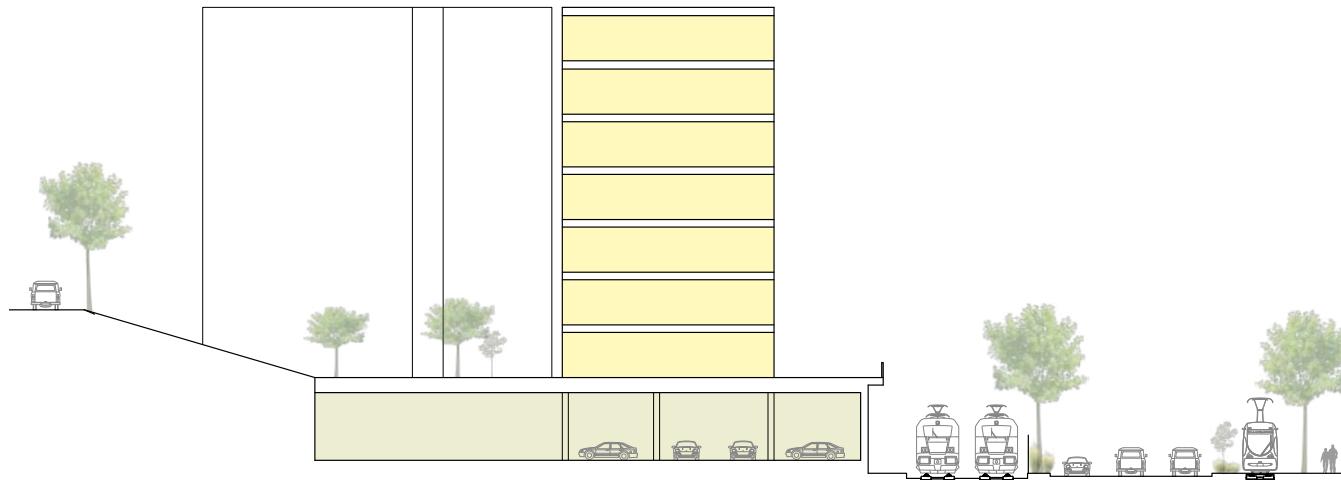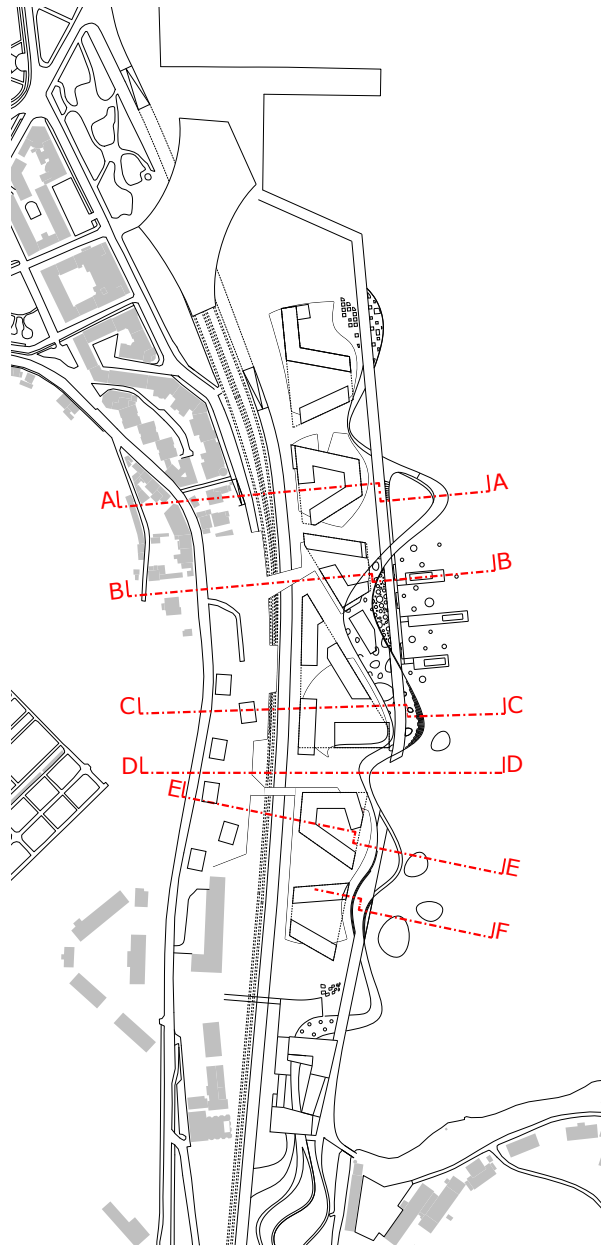
HOUSING

STREETS AND PARKING
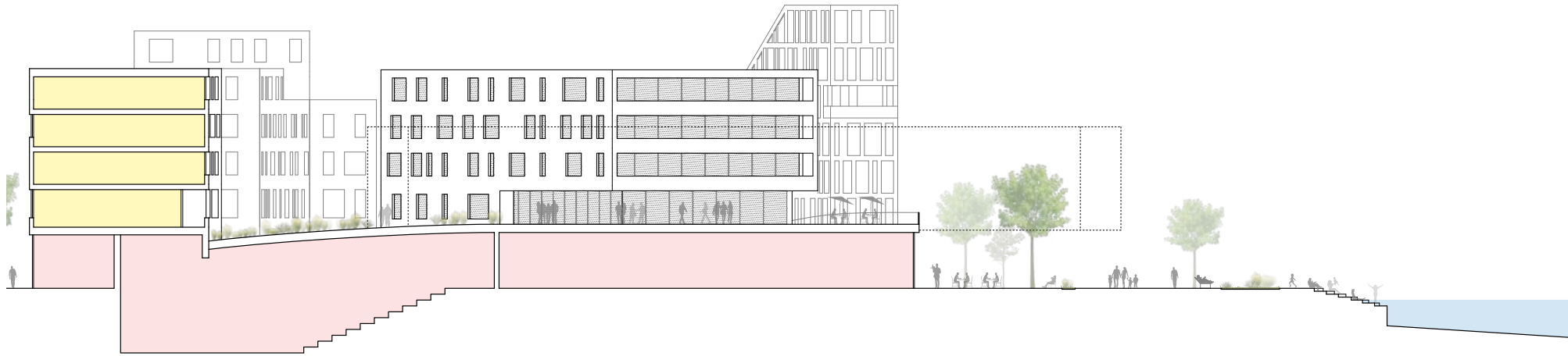
PUBLIC ACTIVITIES

SECTION C (1:500)

SECTION D (1:500)

AI.
BI.
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JA
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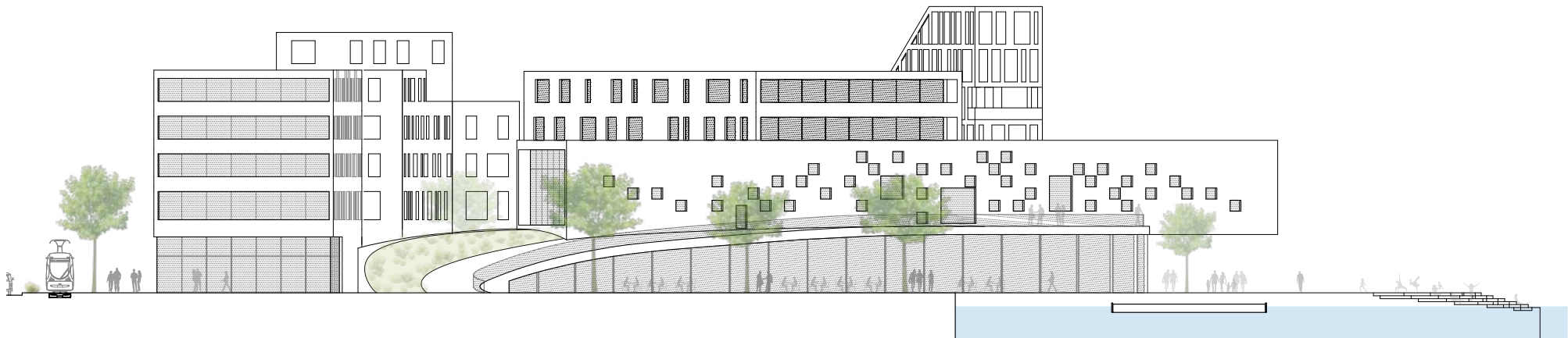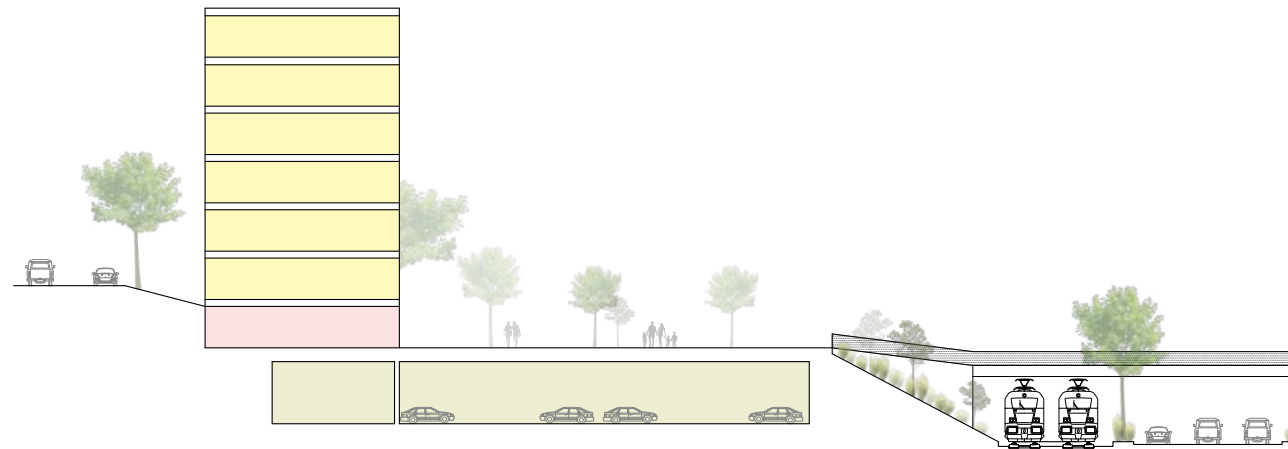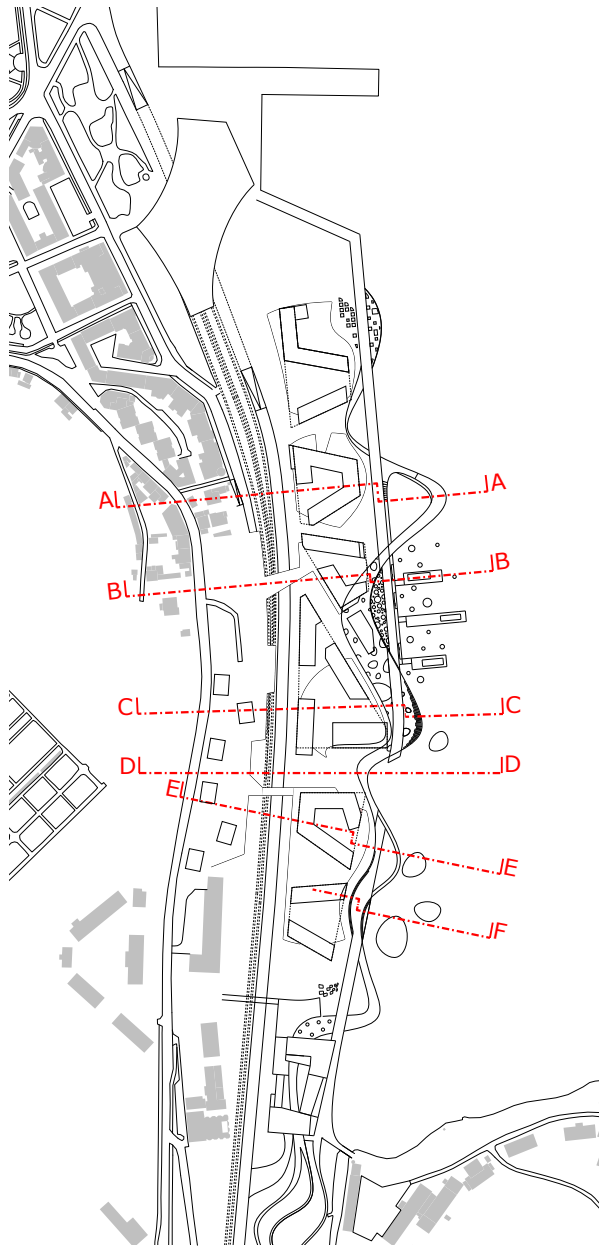
HOUSING

STREETS AND PARKING

PUBLIC ACTIVITIES

SECTION E (1:500)
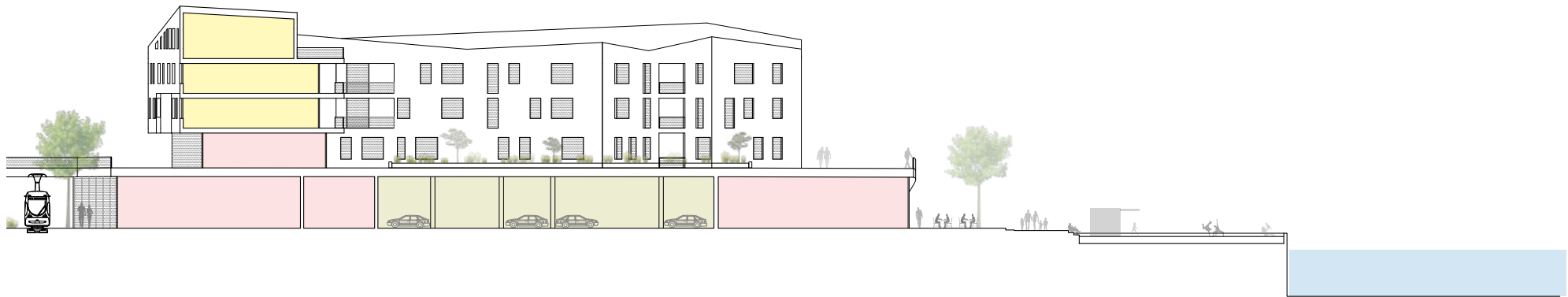
SECTION F (1:500)

GROUND FLOOR (1:500)
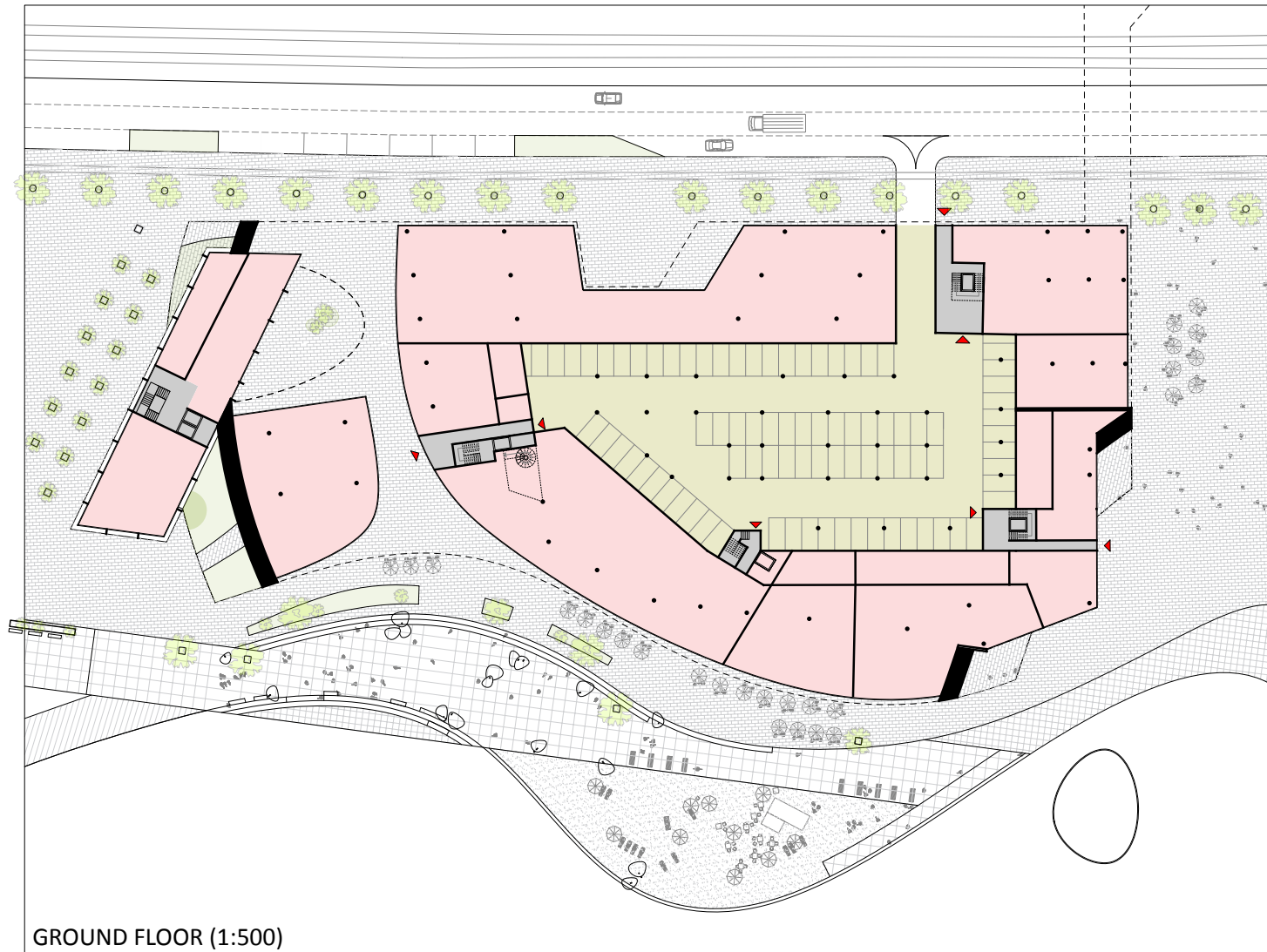
BLOCK EXAMPLE

The hills that define the landscape of the project, connect usually two or more housing buildings into a block unit that share the same parking garage. On the edges, where natural illumination is possible, public activities such as shops, bars, restaurants, kindergartens and various commercial activities take place. In the study example, ca. 85 parking lots are designed. The entries in the buildings are on the ground floor trough the pockets, and on the upper level from the pockets. Here on the first floor above the ground there is a mix of public activities and housing, as other services for the inhabitants such as storage rooms and multifunctional common spaces. The forms of the buildings offer a variety of possibilities for the housing typology. The units varies from large apartments with orientation to both facades, and smaller temporary units for students and tourists who could occupy them in different periods of the year.

FIRST FLOOR (1:500)

HOUSING

STREETS AND PARKING

PUBLIC ACTIVITIES
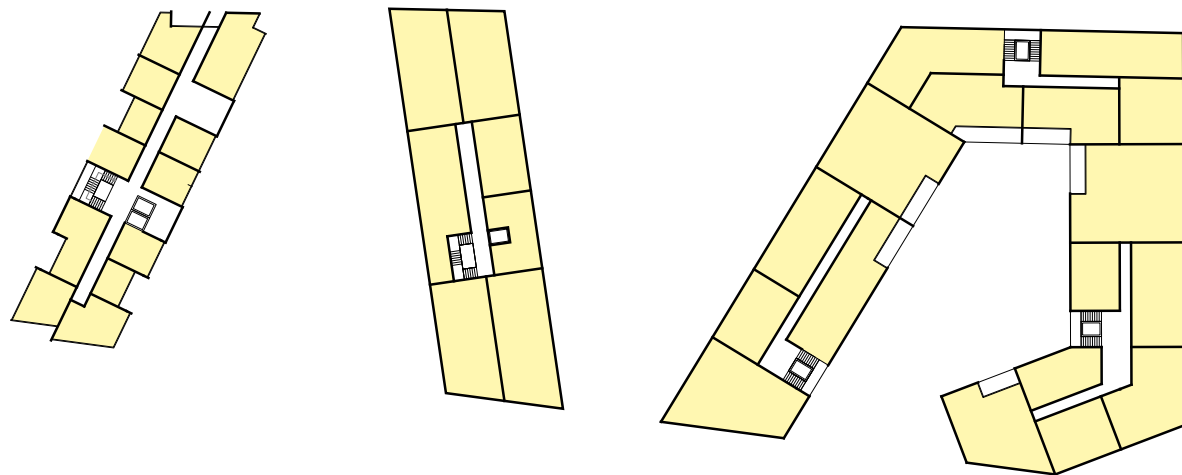
SCHEMATIC PARTITIONING OF HOUSING UNITS, UPPER FLOORS (1:500)

REGIONAL AGRONOMY CENTER

The agronomy center is a strategic project to connect the city of Pula to the countryside of the Istrian region.

A very important economic activity of Istria is agriculture, especially traditional products and the use of those to promote the region for touristic proposes. The geographic position of the peninsula, the very north of the Adriatic sea, and the morphology of it is very favorable for the agricultural sector. It is therefore clear that even if rural Tourism started to develop and the quality of the products is very high, the potentials of the sector are still far from being fully used (2% of total profit together with fishery).

There are more reasons for such a situation:

- Very unfavorable agrarian structure, consisting of too small possessions with small companies and unregistered producers unable to implement new technologies and get on the international market.
- Lack of any specific educational programs
- No nursery production of good quality planting material of local and autochthon sorts.
- Depopulation of the countryside and urbanization of the coastal area.

The development of a new waterfront center in Pula is an occasion to take the situation in account. The area around underneath the abandoned silos and it´s surrounding buildings is suitable for the construction of a center for the development of the regional agronomy.

The RAC is imagined as a tool for producers, visitors and students. It is ideated as a university, but it´s position on the new waterfront gives the possibility to promote the products and work flows, as well as the opportunity to become a producers point of reference in the aspirations to connect with each other, learn, evaluate and promote the products.

The functional program therefor consists of conference rooms, event spaces, laboratories for analysis, research and experimentation, education classrooms, offices, restaurants for tasting and presentations, a library and gardens.
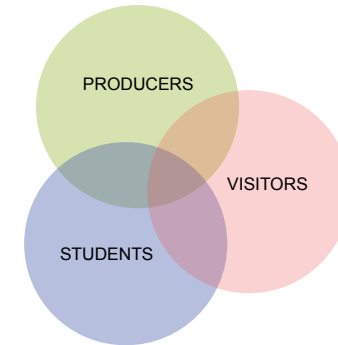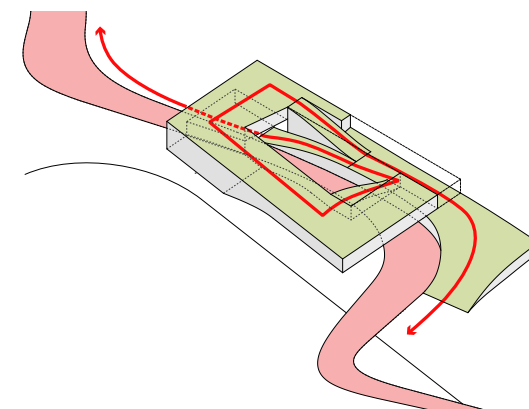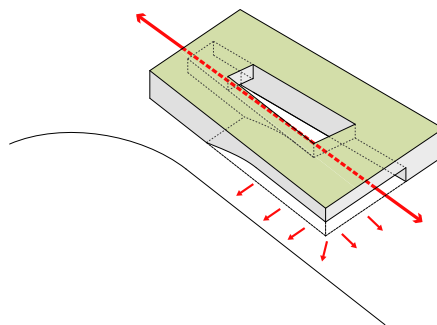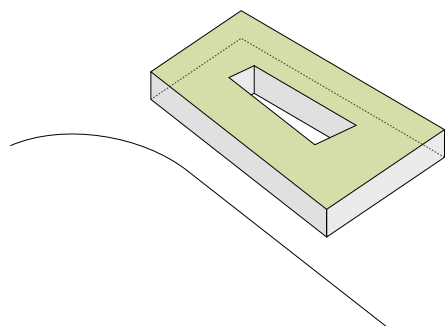
The RAC is an extension of the waterfront wave into the gardens that occupy the northern part of the project area.

The whole structure is a two storey building with a central courtyard for student gatherings and events. Its form is shaped by two main paths that connect the waterfront and the gardens.
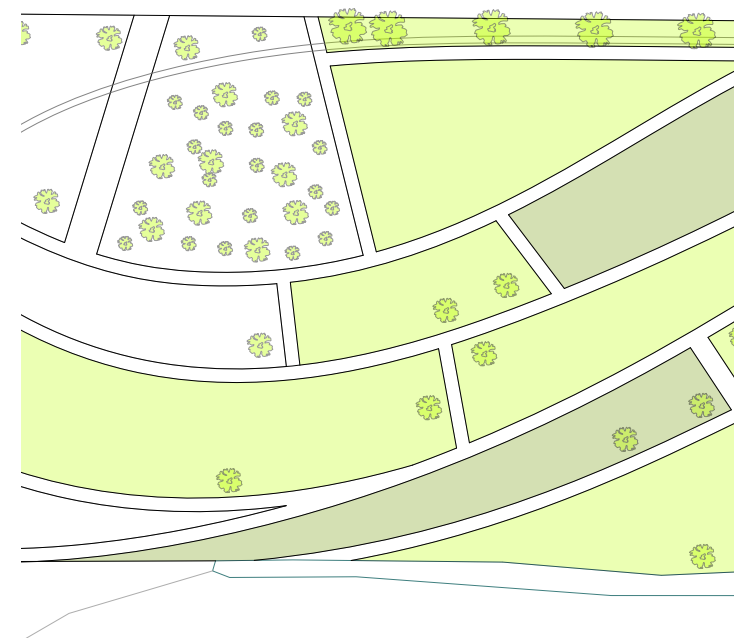
The first is a ground floor connection that extends the courtyard with a large covered space opened to the waterfront. It is the prolongation of the wave on the ground floor that creates a cut through the building and is a merely public character.

The other is a walk trough the gardens on the roof of the new building that serves as a university. Here a series of ramps invites the visitors to explore the landscape and discover the university experimental gardens and to taste the atmosphere on the terraces with views of the bay. On this level also a connection bridge across the street and rail connects the new substance to the existing building which would house the administration, the offices, producers headquarters and student apartments.

On the ground floor there is a conference room, a shop, a restaurant, the library, the laboratories and showrooms.

The university itself is a horizontal fluid space with completely transparent vertical envelope, which allows a flexible and unconventional use of space to learn and study.
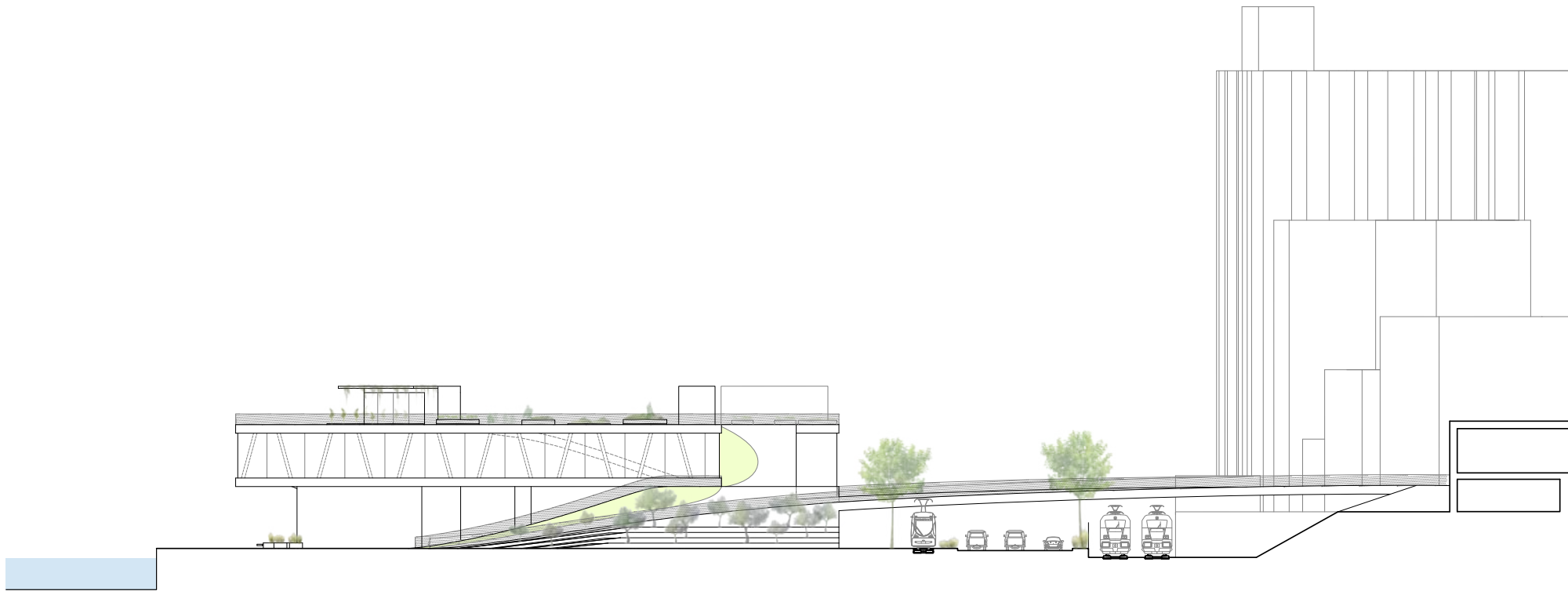
PLANIMETRY (1:1000)

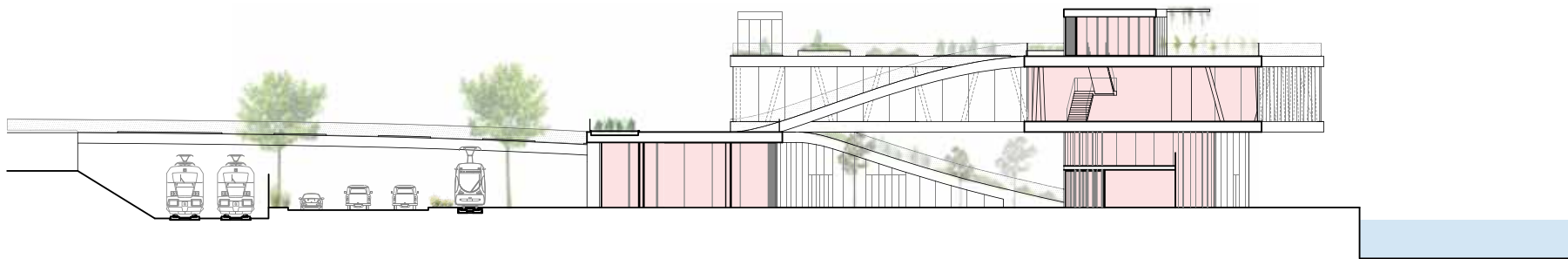SMALL EXHIBITION SPACE

LABORATORIES PRODUCTION SHOWROOMS
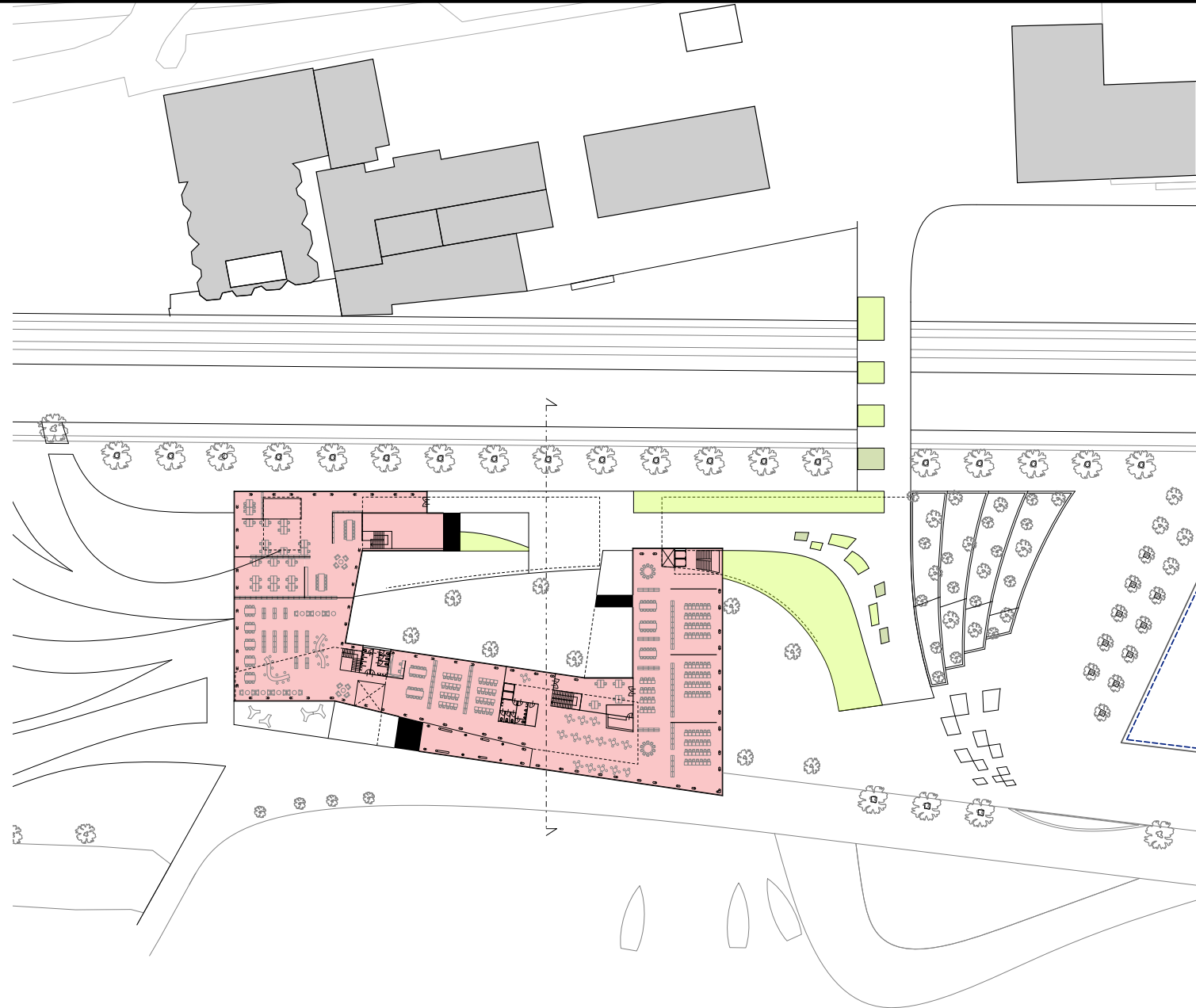
UNI LOBBY

SHOP

CONFERENCE ROOM

LIBRARY

RESTAURANT
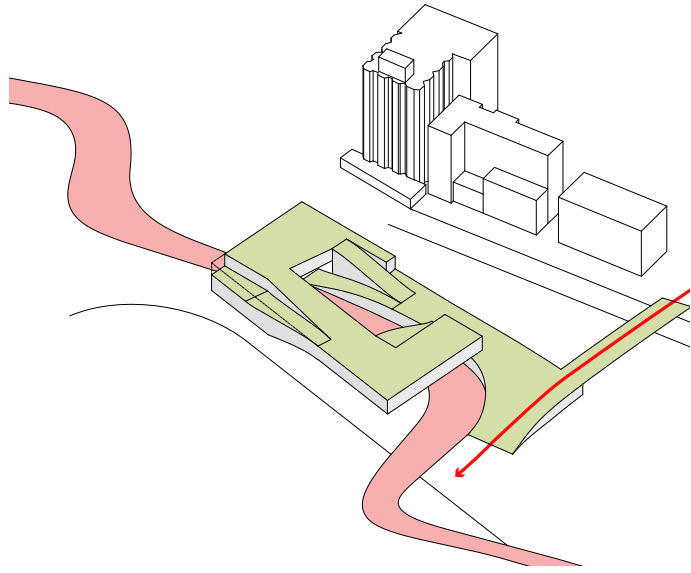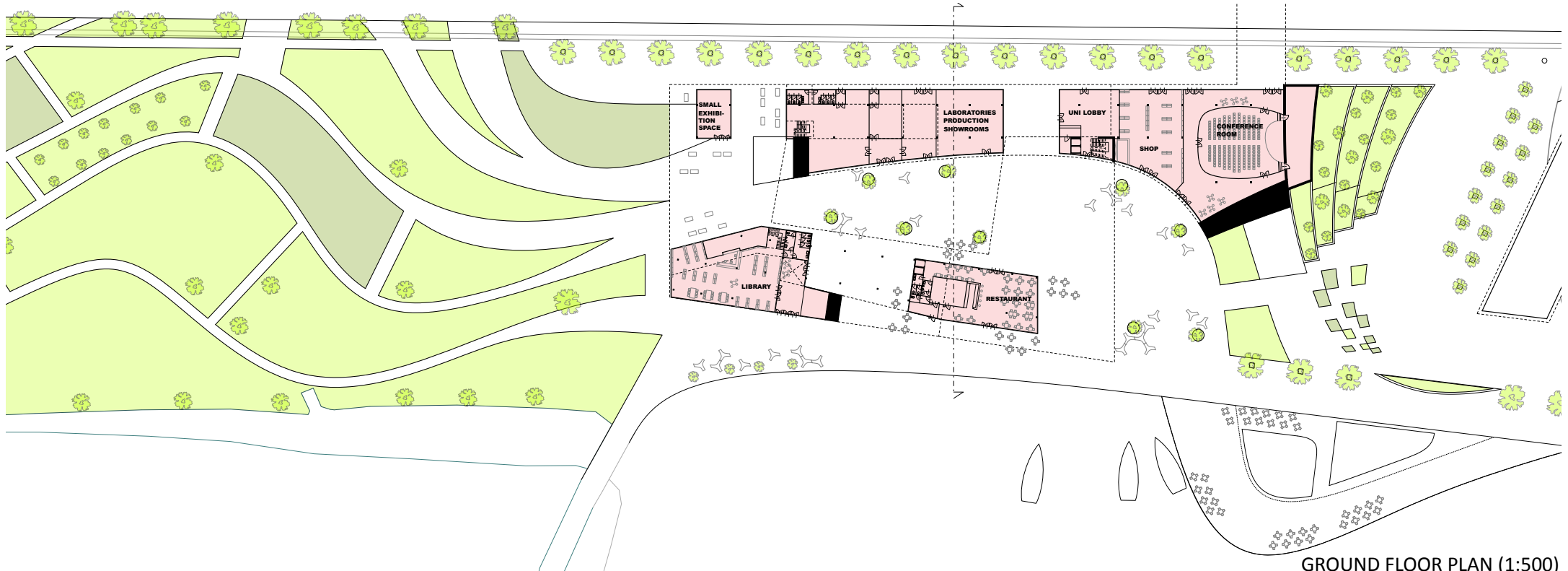
GROUND FLOOR PLAN (1:500)

SOUTH VIEW (1:500)

SECTION (1:500)

1. FLOOR PLAN (1:500)
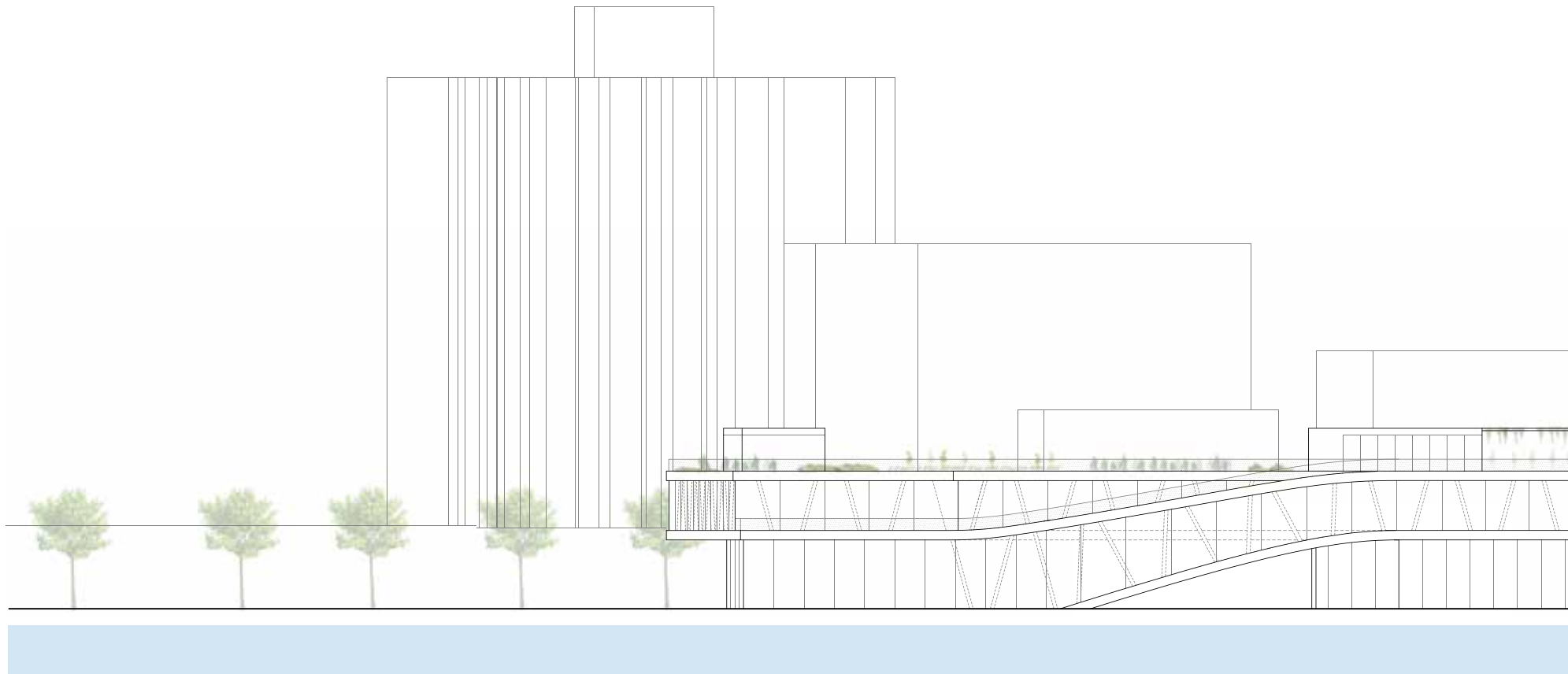
VIEW FROM SEA (1:500)

VISUALS

RESTING AREA

MAIN SQUARE AND CULTURAL CENTER

RESTING AREA AND SAND BEACH

SUN BATH AND PLEASURE DOCKS

MAIN SQUARE

OLIVE GARDEN

PALMS GARDEN
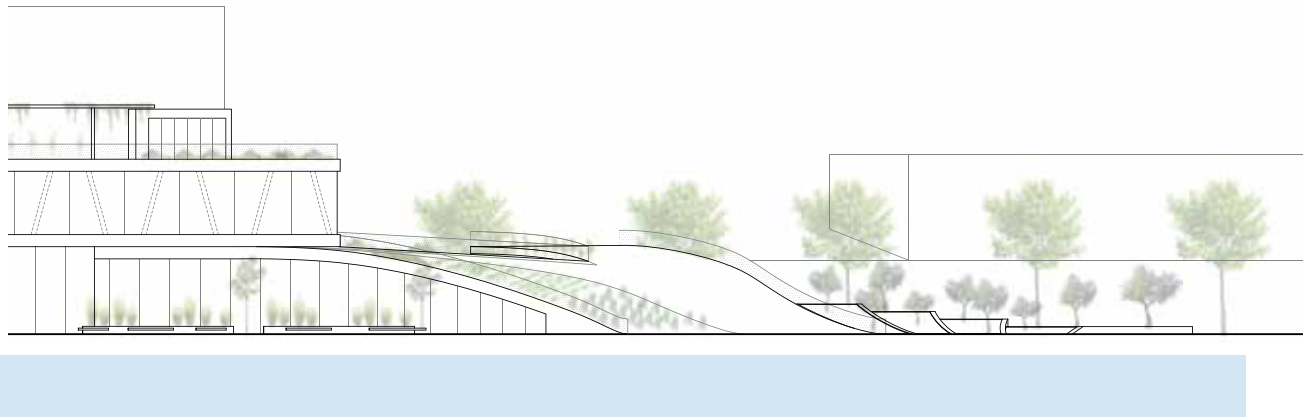
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