



DIPLOMARBEIT

Reassessing Pula: The bay as a network

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ABSTRACT

EN

The large closed off areas, in the bay of the city of Pula, are seeing a crucial moment as the military is abandoning slowly the territory and leaving them to the use of the city. Left behind are large number of abandoned buildings, part of the massive military infrastructure built in the period of two centuries and vast areas in their almost intact natural condition.

The authorities, aware of the possibility of fast profit and temporary creation of employment, are planning to convert these territories into resorts and hotels, cutting once again parts of the bay from the citizens and assigning them, once again, to one prevalent function: tourism.

The aim of this project is to create a strategy plan providing general guidelines of transformation that would integrate the city of Pula, the rest of the bay and the surrounding suburban settlements together, producing new public functions and permitting the re-emergence of the city on the coastline by creating a network of touristic and supplementary activities on the bay.

DE

Die großen stillgelegten Gegenden in der Bucht der Stadt Pula befinden sich derzeit an einem entscheidenden Moment. Der Militärstützpunkt, der einen Großteil der Fläche eingenommen hatte, wird sukzessive aufgelassen und der freigewordene Raum wird der Stadt überlassen. Davon übrig bleibt eine Vielzahl an stillgelegten, nun leerstehenden Gebäuden über, die Teil der von dem Militär aufgebauten enormen Infrastruktur waren und in einem Zeitraum von zwei Jahrhunderten aufgebaut wurden und weiters große Geländeflächen, die größtenteils noch in ihrer natürlichen Struktur erhalten sind. Die Stadtregierung, die sich der Möglichkeit von schnellem Profit und temporärem Arbeitsaufschwung bewusst ist, planen dieses Territorium mit Resorts und Hotels zu bebauen, und damit wiederum die Einwohner von der Meeresküste abzuschneiden und die Gegend der gewohnten Funktion vergleichbarer Städte hinzugeben: dem Tourismus.

Der Versuch dieses Projektes ist es, einen Strategieplan zu entwickeln für eine Richtlinie einer Transformation, welche dazu beitragen würde den Stadtkern von Pula, den restlichen Küstenbereich und die umliegenden Vorstadtbereiche zu verbinden. Dies würde ermöglicht, indem neue öffentliche Funktionen angeboten werden und ein Neuaufleben des Stadtlebens an der Küste zugelassen wird durch das bereicherte Zusammenleben von Tourismus und zusätzlicher Aktivitäten für die Einwohner..

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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; it finds itself on a verge of a important decision for the future of its development and that of the surrounding areas.

The town that was a flourishing center during the Roman period but it lost gradually its importance as it was almost totally destroyed by the plague and a long war with the Republic of Venice raging from the 16th to the 18th century.

Pula was reborn again during the administration of 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 hundred years of Austrian dominance (1813-1918) the devastated town of less than 3,000 inhabitants increased the number of people to 58,562 according to the Austrian census of 1910.

This rapid economic development created a military and industrial areas in and around the city and started to distance the public life of the town from its coasts. The trend has only been reinforced by the political instability in the later periods that have seen the exchange of Italian, Yugoslav and Croatian states.

Now, the large closed off areas, in the bay of the

city of Pula, are seeing a crucial moment as the military is abandoning slowly the territory and leaving them to the use of the city. Left behind are large number of abandoned buildings, part of the massive military infrastructure built in the period of two centuries and vast areas in their almost intact natural condition.

The authorities, aware of the possibility of fast profit and temporary creation of employment, are planning to convert these territories into resorts and hotels, cutting once again parts of the bay from the citizens.

The question has to be asked is if such approach 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?

The work has been organized as follows:

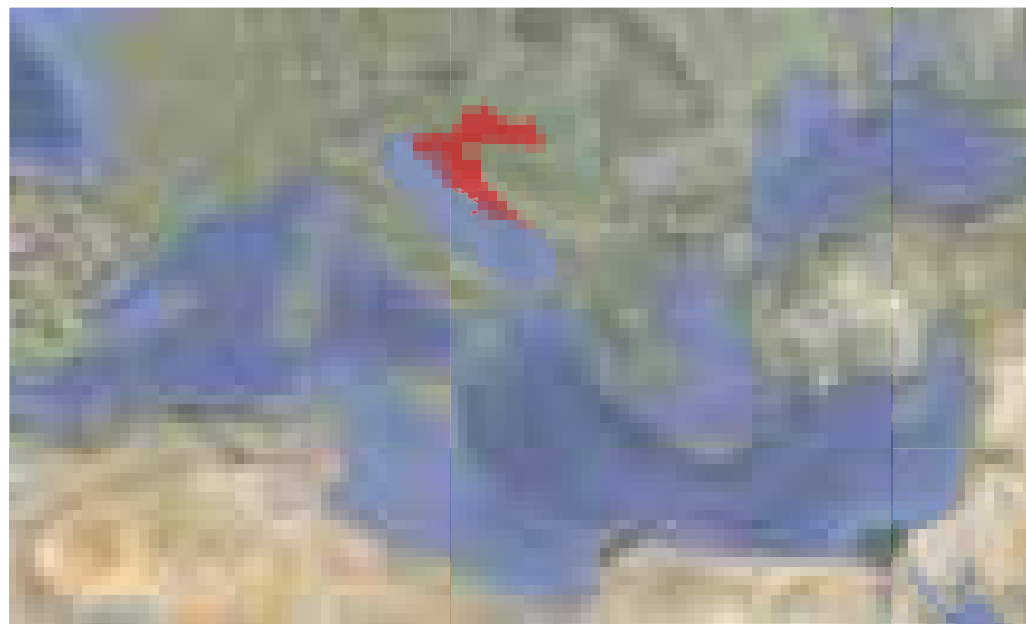
- study the trends of tourism and urbanization on the Mediterranean and Croatian coasts, its impacts on the local environment and society.
- Analysis of the regional and urban economic and social situation to discover the needs and potentials of future development of the city seen as the driver of the regional economy and culture.
- Analysis of the spatial characteristics and functions present in the bay of Pula to determine the potentials and problems of the different areas.

The aim of this project is then to create a strategy plan providing general guidelines of transformation that would integrate the city of Pula, the rest of the bay and the surrounding suburban settlements together, producing new public functions and permitting the re-emergence of the city on the coastline by creating a network of touristic and supplementary activities on the bay.

A further study focusing on the design of the new waterfront in the vicinity of the city center can be found in the Thesis: "Reassessing Pula: Interweaving landscape"



GENERAL DATA AND LOCALIZATION



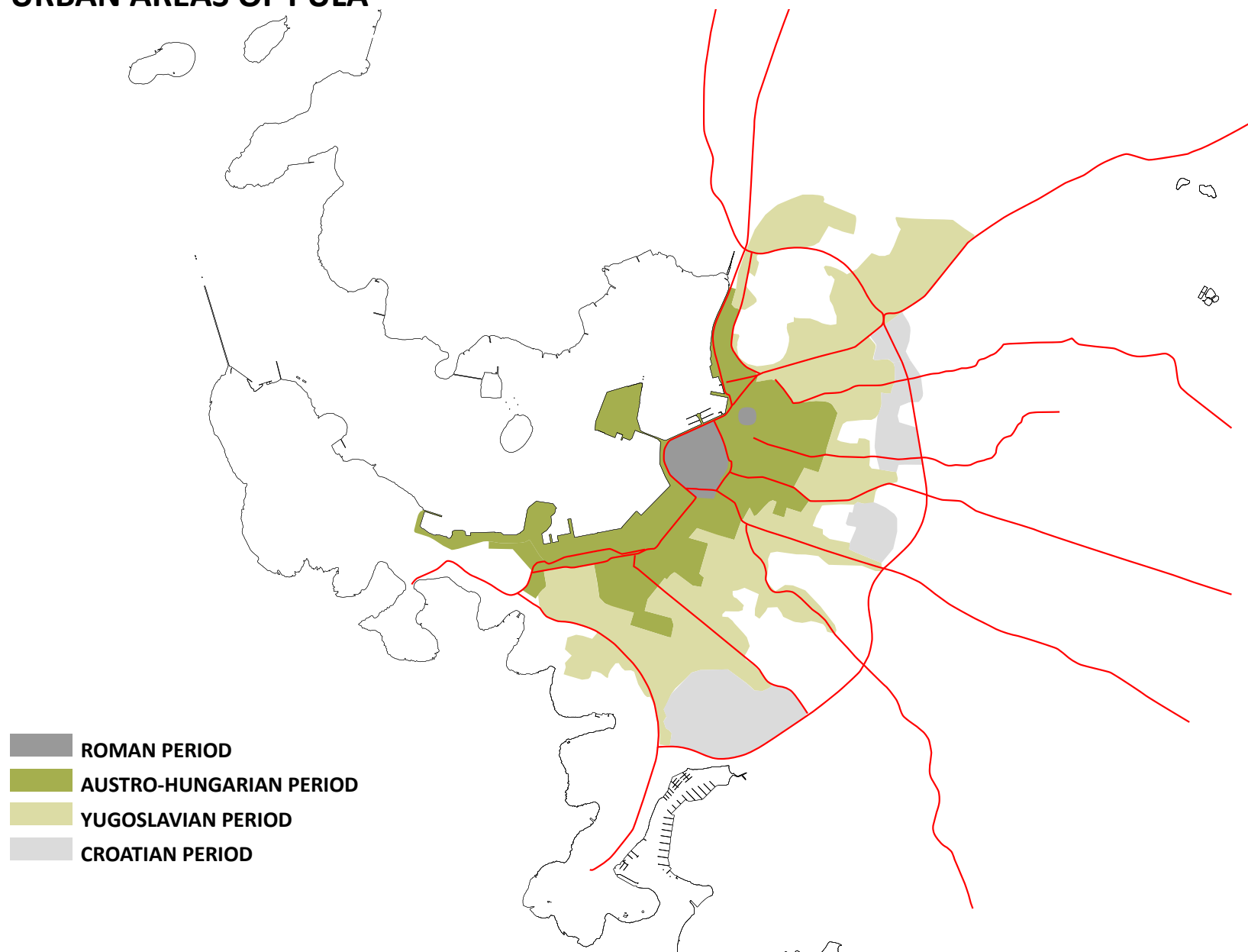
GENERAL DATA

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):.....57 191
DENSITY:.....1,100/km²

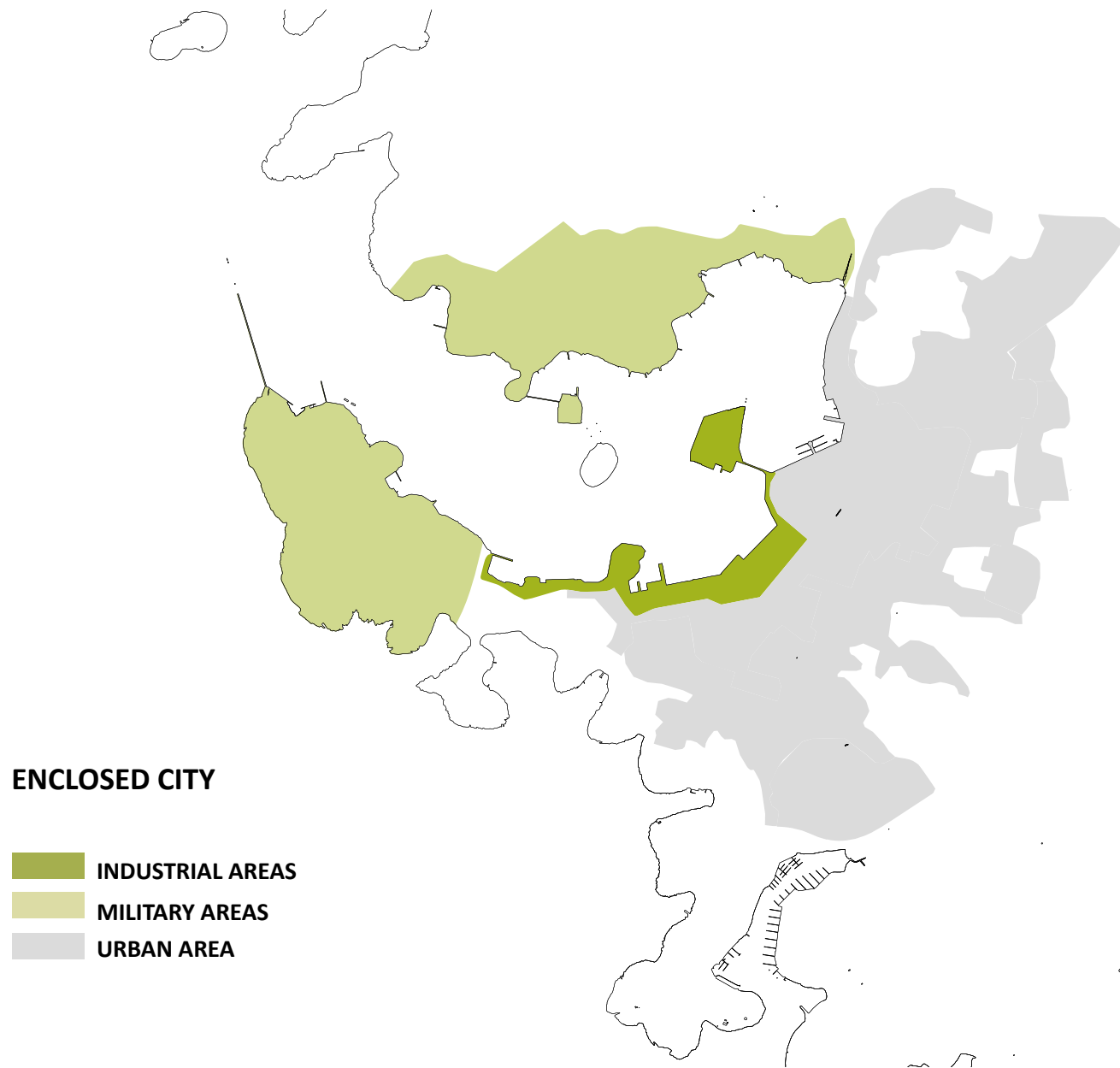
AVERAGE HIGH TEMPERATURE.....18.25°C
AVERAGE LOW TEMPERATURE.....9.8°C



URBAN AREAS OF PULA



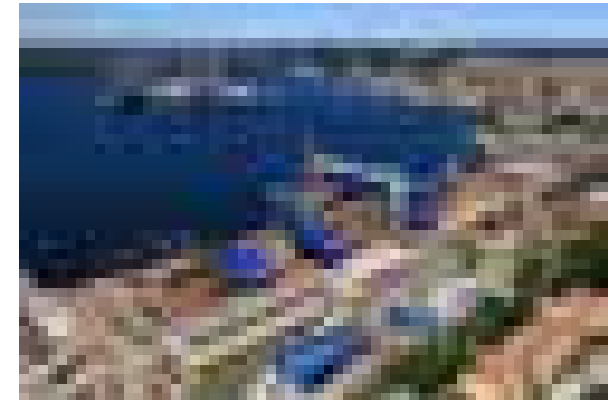
YEAR	POPULATION	DESCRIPTION
<i>1st Century BC</i>	<i>30,000</i>	<i>Roman Peak</i>
<i>1750</i>	<i>3,000</i>	
<i>1857</i>	<i>3,628</i>	<i>Austro-Hungarian development</i>
<i>1869</i>	<i>10,601</i>	
<i>1880</i>	<i>25,390</i>	
<i>1890</i>	<i>31,498</i>	
<i>1900</i>	<i>36,143</i>	
<i>1910</i>	<i>59,498</i>	
<i>1921</i>	<i>38,594</i>	<i>After 1st WW</i>
<i>1931</i>	<i>44,219</i>	<i>Italian regime before 2nd WW</i>
<i>1948</i>	<i>20,859</i>	<i>After 2nd WW</i>
<i>1961</i>	<i>37,099</i>	<i>Yugoslavian development</i>
<i>1971</i>	<i>47,156</i>	
<i>1981</i>	<i>56,153</i>	
<i>1991</i>	<i>62,378</i>	
<i>2001</i>	<i>58,594</i>	<i>Croatia</i>
<i>2011</i>	<i>57,765</i>	

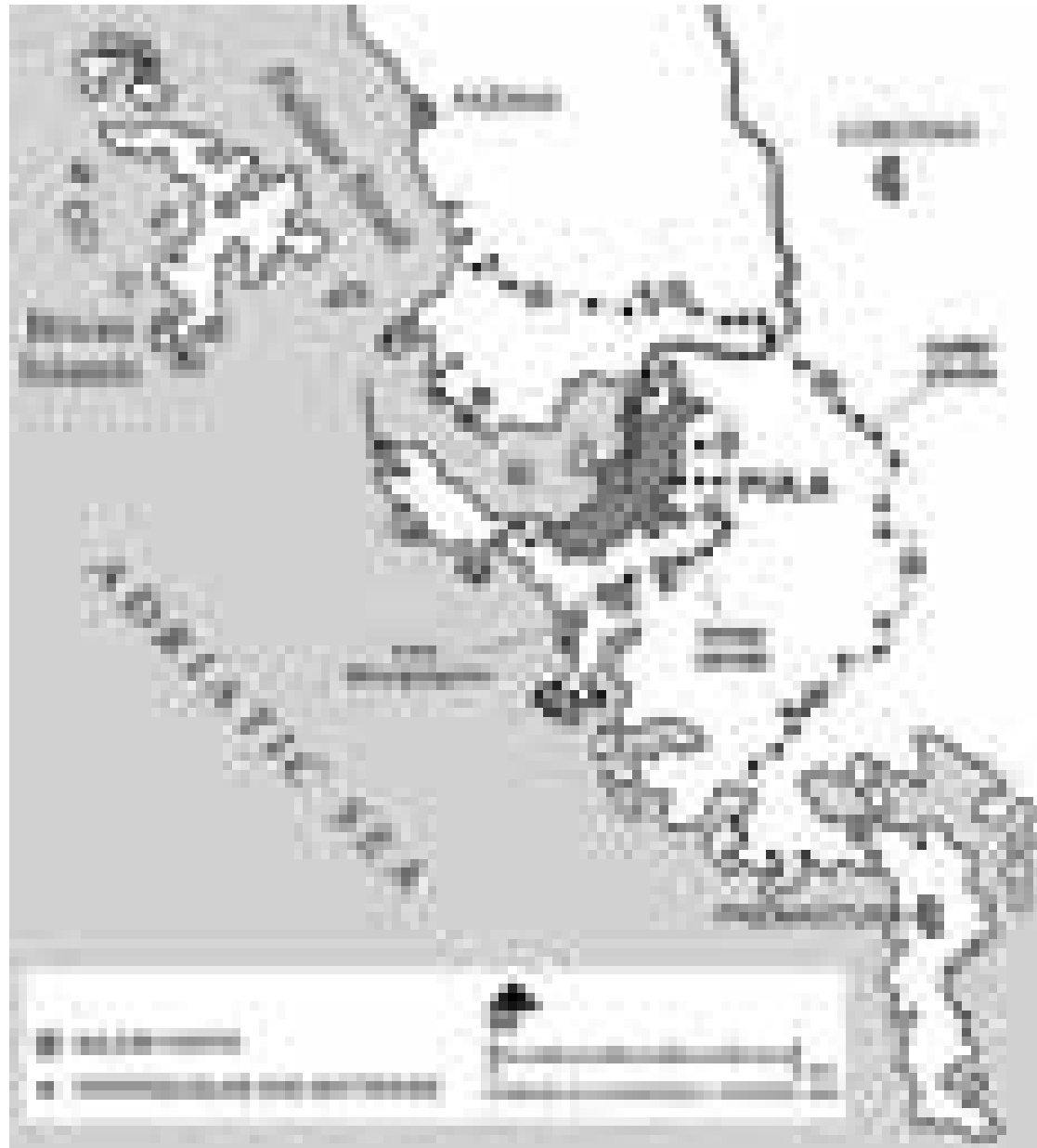


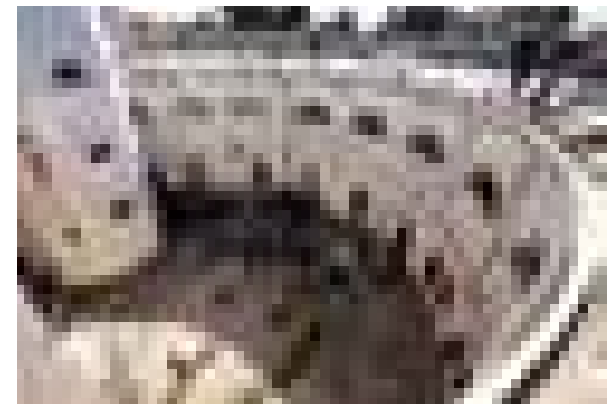
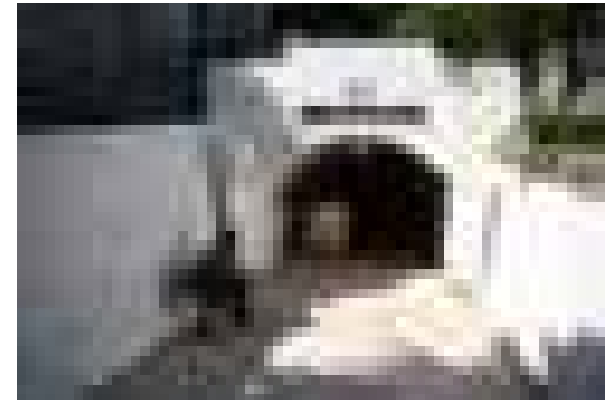
ENCLOSED CITY

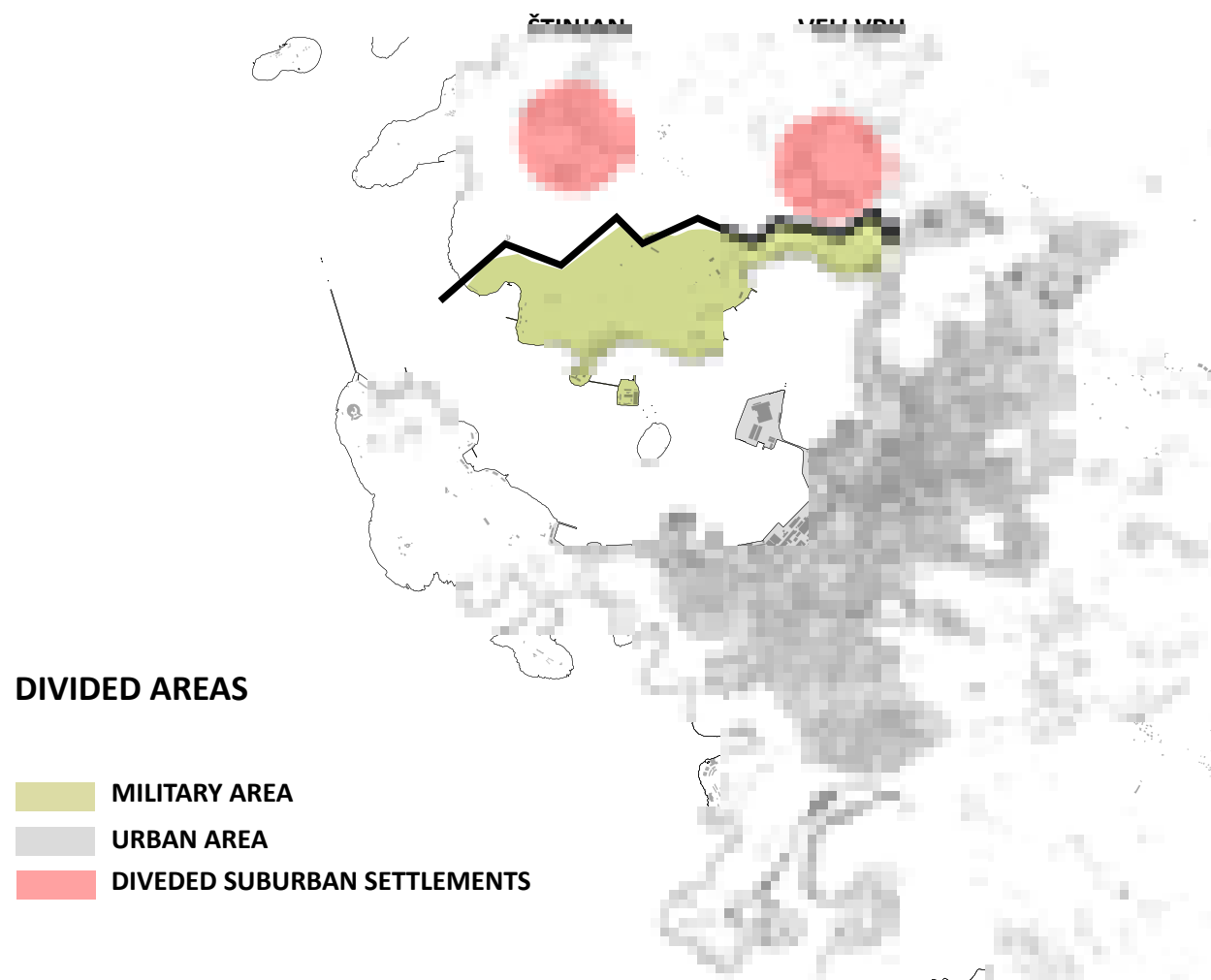
In the 105 years of Habsburg occupation, the planning of the city was heavily influenced by the construction and extension of military buildings for the defense system of the city. The defensive system was formed by a group of separated forts, that later continued to develop with artillery batteries and groups of forts, until the city was transformed into a territorial stronghold closed to all parts, including a vast territory that extended from the gulfs of Rasa and Lim at the tip of Premantura to Mali Losinj. In the first years, aside of the large fortified arsenal for shipbuilding, that completely changed the city history, the defense system was integrated with more than 20 new strategic points and the maximum distance between the fortresses was 2 km. The morphological nature of the goulf of Pula and the well-developed defense system, which became even better and more dynamic during

the War, has preserved the city and harbor from wartime destruction and significant heritage buildings have all been well preserved. Most of the military areas preserved their form and function during the later changes of power between Italy, Yugoslavia and than Croatia, remaining closed to public. During the war for independence in the nineties, 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 changed 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.

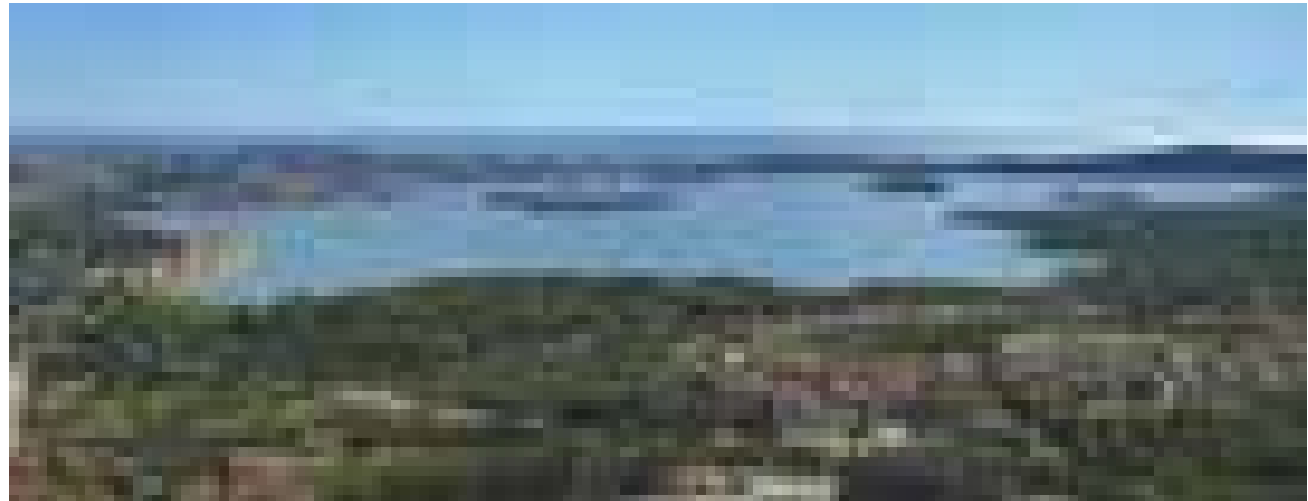








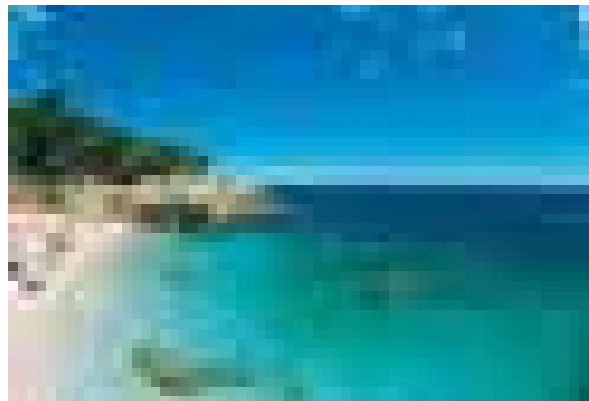
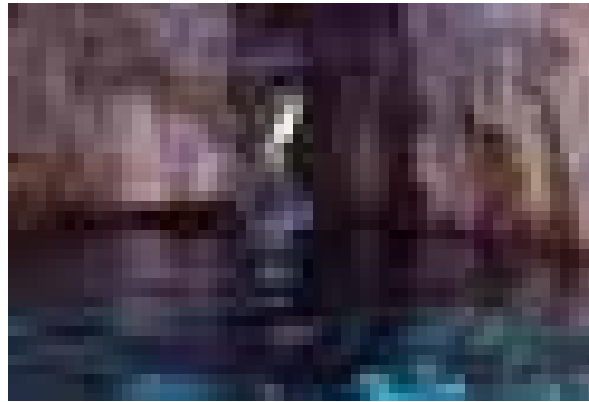
SUBURBAN CENTRES



The two suburban quarters of Štinjan and Veli Vrh have been declined the access to the bay of Pula through the large military area of Valledunga and Monumenti. Veli Vrh is a settlement that emerged in the seventies as one of the first examples of private housings in Croatia. Today around 3.000 inhabitants live in single family houses on the suburban hill of Veli Vrh.

Štinjan, a village with around 1.400 inhabitants and a long tradition, that develops around its center without ever involving the coasts, makes part of the municipality of Pula.

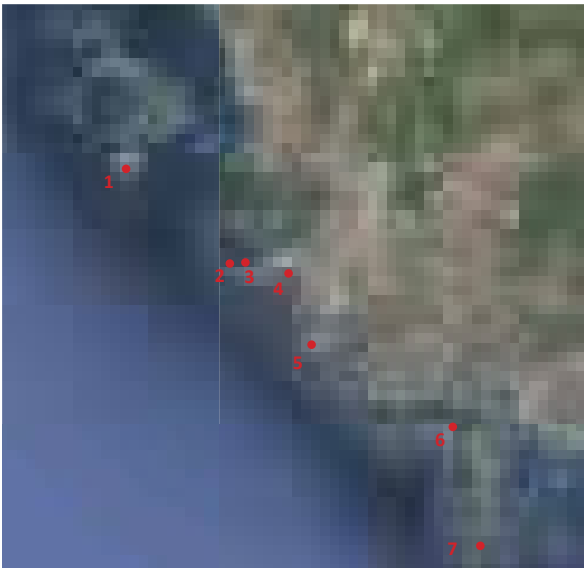
Both areas face, due to the vast ex-military zone, the possibility for integration into the larger picture of the city by opening themselves onto the coasts of the gulf.



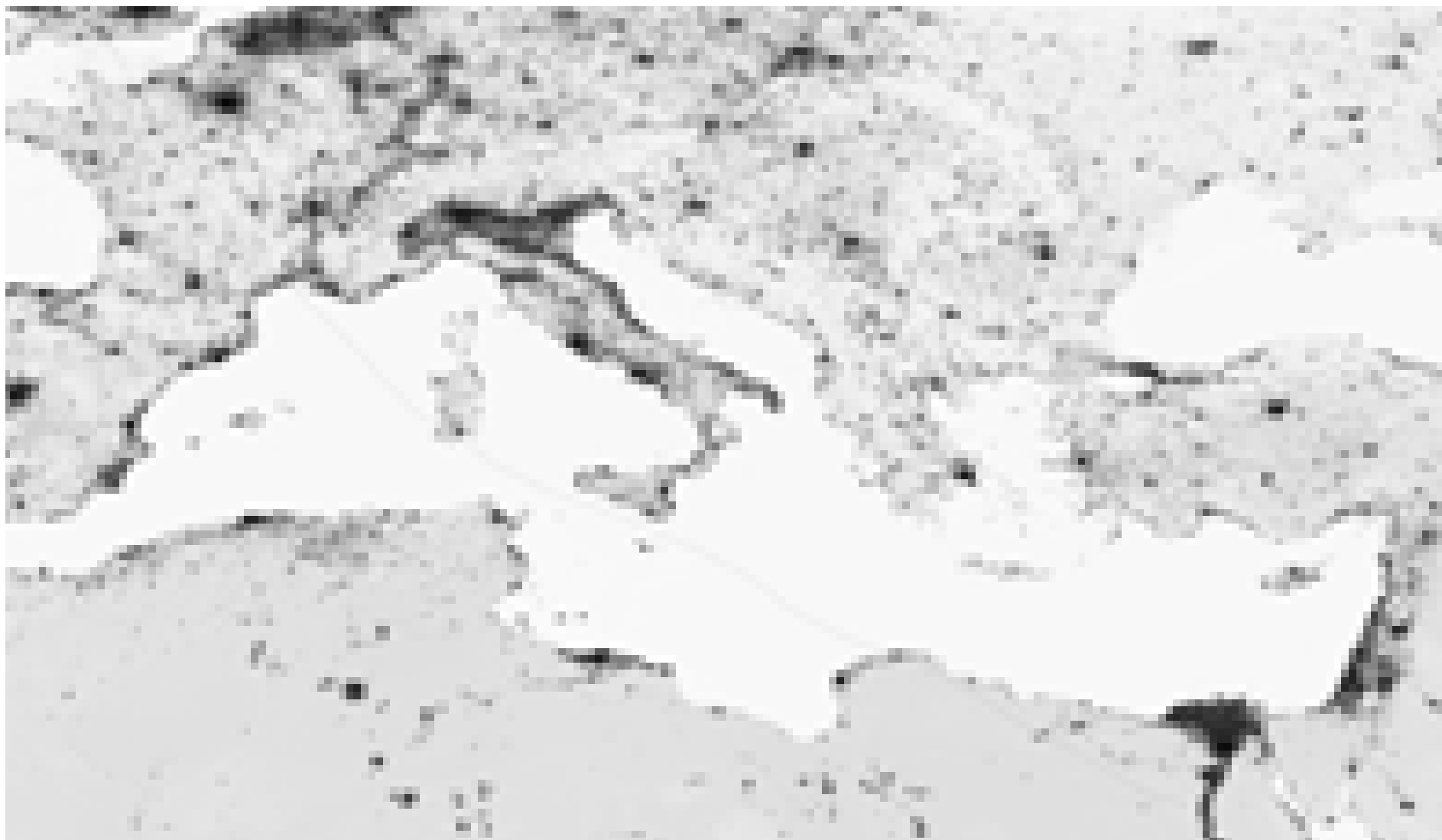
SOUTH-WEST COAST

Due to the presence of the industry and the military in the bay, the city has used the outside southwest coast, facing the open sea, as it's contact with the water. The diversity of the coast, the clear sea and the easy access due to the vicinity to the city makes of the area an important resource for Pula. Beside for the quality of life for the citizens, it has played a major role in tourism, without drastically altering it's natural environment, and letting the tourism and leisure of the domestic population coexist with no conflicts.

Also, the proximity of the national park of Briuni and the protected landscape of Kamenjak, forms a unique natural entity of extremely high value.



URBANIZATION ON THE MEDITERRANEAN



ANALYSIS

The Mediterranean area, as one of the birthplaces of our western civilization, is characterized by a large variety of historical and cultural heritage and different states of economical development and a unique and diverse biodiversity, ranging from the desertic landscapes of northern Africa to the fertile lands around the Adriatic blessed by pleasant and temperate climate.

These different climate and geographical characteristics united with the economical and historical developments have made the region a birthplace of many important civilizations through the centuries and one of the most beloved tourism targets in the world.

In total 23 different states share the coastline of the Mediterranean, the city of Barcelona being the largest urban center of the area.

According to data from Géopolis and the European Union Plan Bleu in 1999 it is possible to establish the proportion of the population living on the coast of the Mediterranean and the whole population of each country.

The demographic situation of the countries is dependent to economic and natural properties of each country but it is possible to identify certain clusters:

the population living on the coast makes around 10% of the total population in countries such as France and former Yugoslavia, but in island states (for ex. Malta) and small coastal states (Albania,

Israel and Lebanon) that number climbs up to 100 %.

Very high figures of people living on the coast can also be found in bigger states such as Italy, Tunisia, Libya, Algeria and Greece, where the majority of the most significant urban agglomerations are situated at, or near, the coast.

Generally from the data can be deduced that the coastal population density is more than twice as high as the density of the whole Mediterranean population.

The population of the 23 countries and territories around the Mediterranean area was estimated at 405 million people in 1995 of which 62 % live in what are considered urban areas.

If we consider this urban area on the Mediterranean coast together as one conglomeration, amounting to 253 million people, it constitutes then one of the biggest and largest urban areas in the world, in fact according to the same definition and territory occupation the urban areas of the U.S.A reach a little more than 185 million people, those of India reach 250 million inhabitants and those of China reach about 400 million people.

The shares with which each country contributed to the total urban population of the Mediterranean has undergone a big change in the course of the time:

	1950	1970	1995	Multiplier (1950-70)	Multiplier (1970-1995)	Multiplier (1950-1995)
Total population (millions)	214	285	405	1,34	1,42	1,9
Urban population (millions)	94	154	253	1,64	1,64	2,7
Urbanisation rate (%)	44	54	62	1,23	1,16	1,4

Source : *Géopolis* 1998, Plan Bleu 1999.

Table 12.- Urbanisation rates of Mediterranean coastal regions in 1995

Country or territory	Urbanisation rate in the country (en %)	Urbanisation rate in Mediterranean coastal regions(en %)
Albania	34	38
Algeria	47	52
Bosnia-Herzegovina	33	27
Croatia	49	51
Cyprus	62	62
Egypt	67	59
France	62	72
Greece	59	63
Israel	83	83
Italy	71	77
Lebanon	67	71
Libya	79	82
Malta	73	73
Monaco	100	100
Morocco	49	40
Palestinian Authority	57	94
Slovenia	34	34
Spain	78	85
Syria	56	38
Tunisia	55	64
TurKey	60	61
Yugoslavia	46	63
MEDITERRANEAN TOTAL	62	68

Source : *Géopolis* 1998, Plan Bleu 1999.

In 1955 the four countries of Italy, Greece, France and Spain represented 74% of the Mediterranean's total urban population but 40 years later, in 1995, the same countries represented less than half (45%) of the urban population, the big part of the urban growth now occurring in African countries of the Mediterranean.

As far as the distribution of these urban settlements is concerned it is interesting to quote the Géopolis study from 1995:

"In 1995 Géopolis registered 3,962 urban areas with at least 10,000 inhabitants in the Mediterranean countries. Mapping the patterns of these urban areas demonstrates that the urban areas generally copy the coastal lines with remarkable precision. With only a few exceptions (Corsica, Crete, Cyprus and Libya), this indicates that the coastline has now become intensively urbanised."

"Only in four countries, the coastal regions are less urbanised than the country as a whole. Here it is the massive presence of a rural population that explains the weakness of the urbanisation rates."

This gap of urbanisation rates is significant in Syria(18%), Morocco(9%) and Egypt(7%)

In all other countries or territories on the Mediterranean, the coastal regions are more urbanised than the country as a whole.

Naturally the position on the coast of a large cities has the consequence of raising the averages significantly. The differences between the rates, in these cases, can be relatively small (1 % in Turkey, 2% in Croatia , 3 % in Libya) but can also have a considerable impact and amount to 7 % in Spain, 10 % in France, 9 % in Tunisia. A special case is

represented by the Palestine territories, where the 37 point difference in urbanization rates on the coast and the whole country is due the the presence of the completely urbanised enclave (373 km²) of the Gaza Strip.

URBAN CENTRES ON THE MEDITERRANEAN





TOURISTICAL LANDSCAPE

With the development of the, evermore efficient, tourism industry, the more cheaper and efficient way of transportation and the reach of the globalisation, the coasts of the Mediterranean have become slowly the main touristic destination in the world, the region receives in fact one third of the global income of international tourism, of that almost 80 % is destined to the four countries of Spain, France, Italy and Greece. Tourism, recreation and leisure have become the main economic activity of the coastal areas presenting new opportunities but also new challenges and dangers for this coastal environment.

The high coastal population densities and the presence of different types of seaside resorts, which are often found just outside the urban settlements , are changing the Mediterranean coastline into a continuous linear built infrastructure that is slowly exceeding the sustainable environmental limits and changing dramatically the mediterranean landscape and it's identity, in fact 25,000 km of the total 46,000 km of the mediterranean coast have already been urbanized.

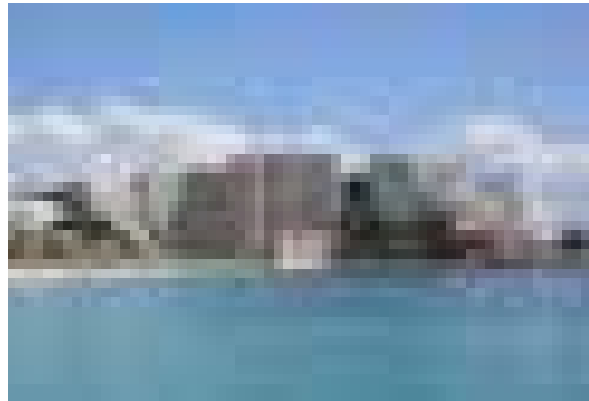
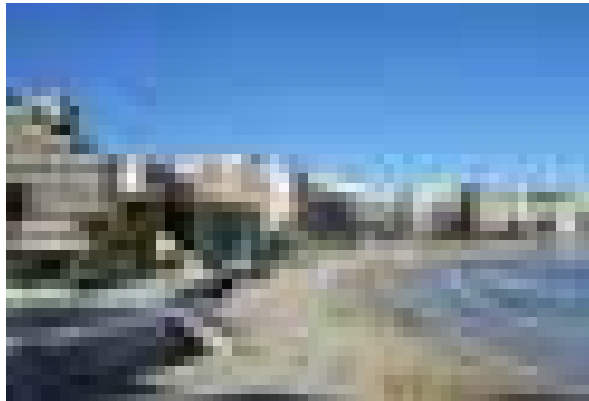
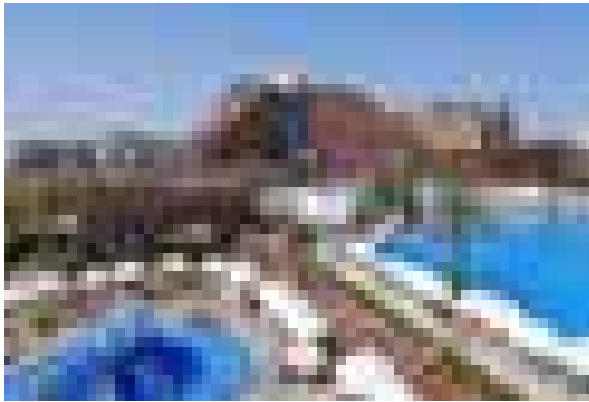
The pressure is not only environmental and urban, but also economic, with an inevitable tendency of local communities to abandon traditional productive activities, mostly forestry and agriculture, and concentrate on activities

related to tourism and rent as soon as it becomes evident that these are more profitable than the traditional professions.

Tourism does attract significant investments from public and private, domestic and foreign investors, but these investments are limited in scope, for private profit and no infrastructure development, create low wage jobs and the regions become over dependent on the tourism industry. In addition the seasonal character of tourism on the coast, and the necessity to accommodate and satisfy a large number of travelers in a small amount of time, can put under big environmental and infrastructural pressure these landscapes destroying the qualities that the travellers have found attractive in the first place.

From the spatial point of view, the last five decades on the Mediterranean coast, have seen the appearance of large thematic areas dedicated to leisure and tourism, specialized in their function and isolated from the context, they have been launched in the 1950s with bombastic names in order to attract the european and international tourist market.

A glaring example of this tendency is Spain, with Costa Dorada, Costa Blanca, Costa Brava and Costa del Sol, also known as Costa del Golf, together with the Balearic Islands such as Majorca, Menorca and Ibiza ; these Specialized areas have brought fast profit to landowners but have also contributed



large transformations and degradation of the pre-existing environment. Watching in particular at the Costa del Sol: 200 km of it's coast have been transformed into a massive touristic theme park, spatially fractionated by circa 45 golf courses (As of January 2011 the Spanish Golf Federation confirms there are 422 golf courses in total). Even if those interventions are apparently of a "green character" they constitute a major environmental problem represented by massive water usages, necessary for the golf fields, in area of natural and periodic water shortage, and additional use of chemicals (herbicides, pesticides, fungicides and artificial coloring) which can permanently jeopardize the local soil and fauna as also being dangerous for human health.

The density and intensity of the built infrastructure dedicated to tourism, from hotels to resorts, can be so high, that in certain parts on the Italian coastline there is more than one bed available for every 2m of coastline. In France, the historical well-known destination of Cote d'Azur is now mirrored by the presence of Cote Vermeille where ca. 50 % of the country's second homes have place together with 60% of the hotel facilities and 80 % of the camping sites and holiday villages. These kind of rapid development associated with high density of settlements doesn't take place only in the "Three giants of the mediterranean tourism" but is also currently underway on the Turkish Riviera, Cyprus, Mediterranean Morocco and Tunisia.

A further change is occurring in the type of morphology of the new urban centers on the coast, in fact while the number of urban centers

(more than 10 000 inhabitants) is slowly getting bigger, the new centres exhibit an always bigger suburban character with mostly second homes and hotels spreading along a narrow strip of coastline. In Spain the number of houses along the Mediterranean coastline went up by 77% over the last 20 years, in some Italian regions, in particular Calabria and Sardinia more than 100% of houses have been built on the coast in the last 20 years, a growth of building which is much faster than the growth occurring in inland. These new forms of building environment on the coastline, partly due

to unauthorized and illegal form of building, have a significant environmental impact and occupy an always bigger areas which leads to even more pollution, production of liquid urban waste, "cementification" and loss of biodiversity.



THE CROATIAN CASE



CROATIAN COAST: A PRESERVATION STATE

Only a few areas of the Mediterranean coast in Europe, in the last decades, have not undergone the transformation of the coast into a “touristic landscape”, a continuous built infrastructure dedicated to leisure and tourism.

These regions have usually avoided the economic pressure applied by the tourist industry in the western countries and have therefore missed out the economical trends typical of the north-western Mediterranean coasts and the accompanied built consequences of these trends. The cause of this delay was usually an unstable political situation, a system not favourable to capitalist form of investment or poor economics incentives that didn't produce necessary funds for the housing and touristic sector, these dynamics have still effects and implications on the transformation of the coast until the present.

The former Yugoslavian countries were during the decades under the communist state, hosting merely national touristic movements and avoiding and prohibiting most forms of foreign investment and involvement in the design of the tourism industry in EX-Yugoslavia.

After the end of Yugoslav federation and the consequent wars, some of its former republics, like Montenegro for example, have opened themselves in a very liberal and uncontrolled way to all forms of foreign investment and are going

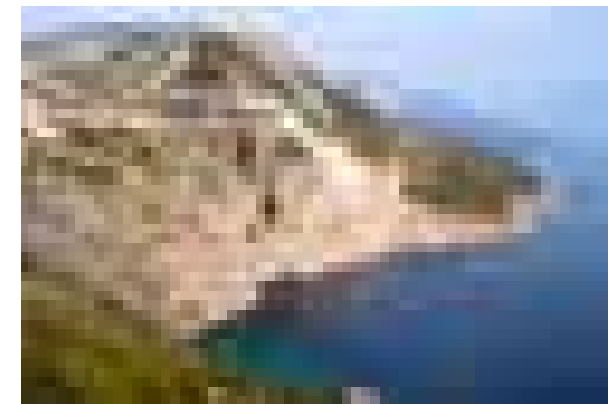
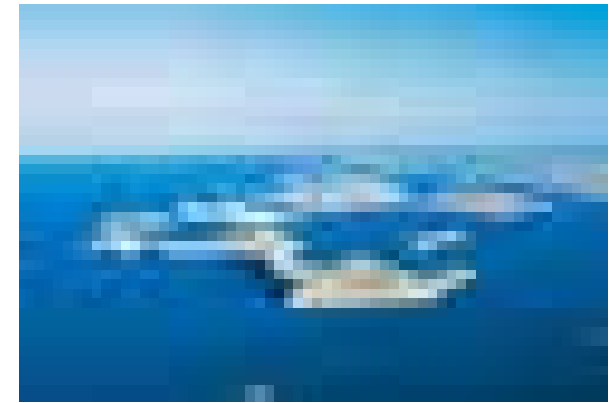
as a result, through an intensive process of rapid urbanization in the still preserved coastal territory. The land is being sold at a maximum price, set by the global market, uncontrolled and unlimited by the state and impossible for the local population to match, it brings, in short term, maximum profit but could have a high impact on the social, cultural and the environmental systems of the coastline. The Croatian coastal territory still is one of the less built coast on the Mediterranean sea.

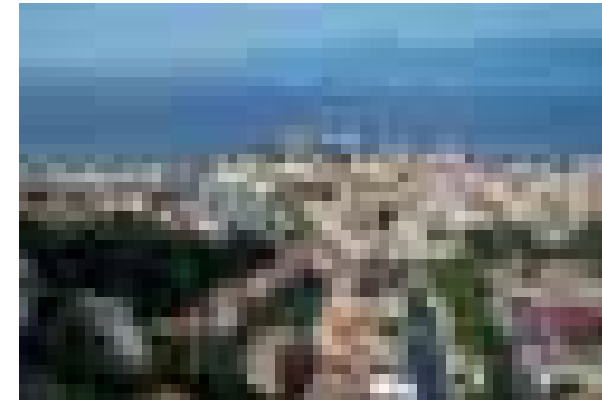
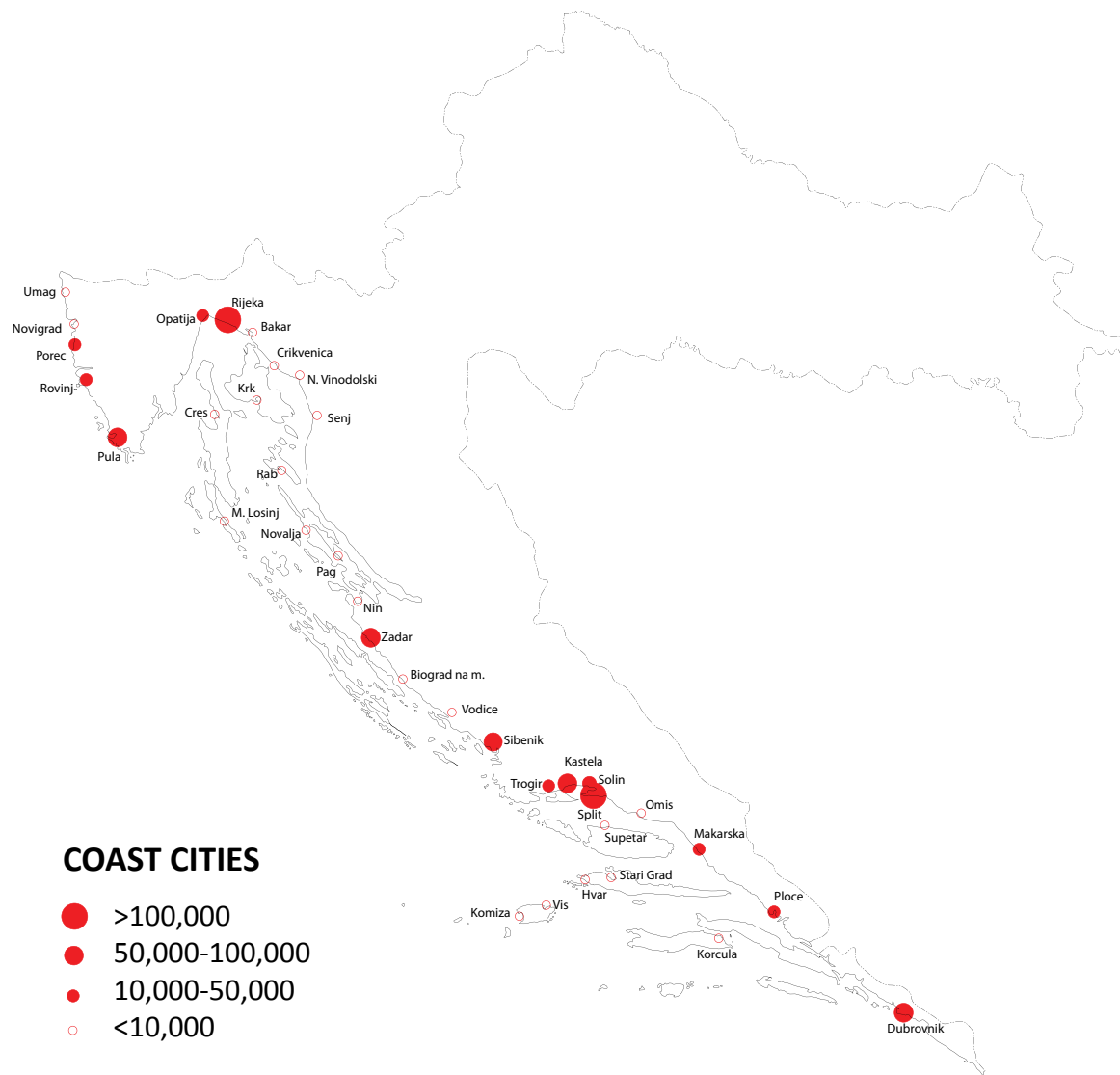
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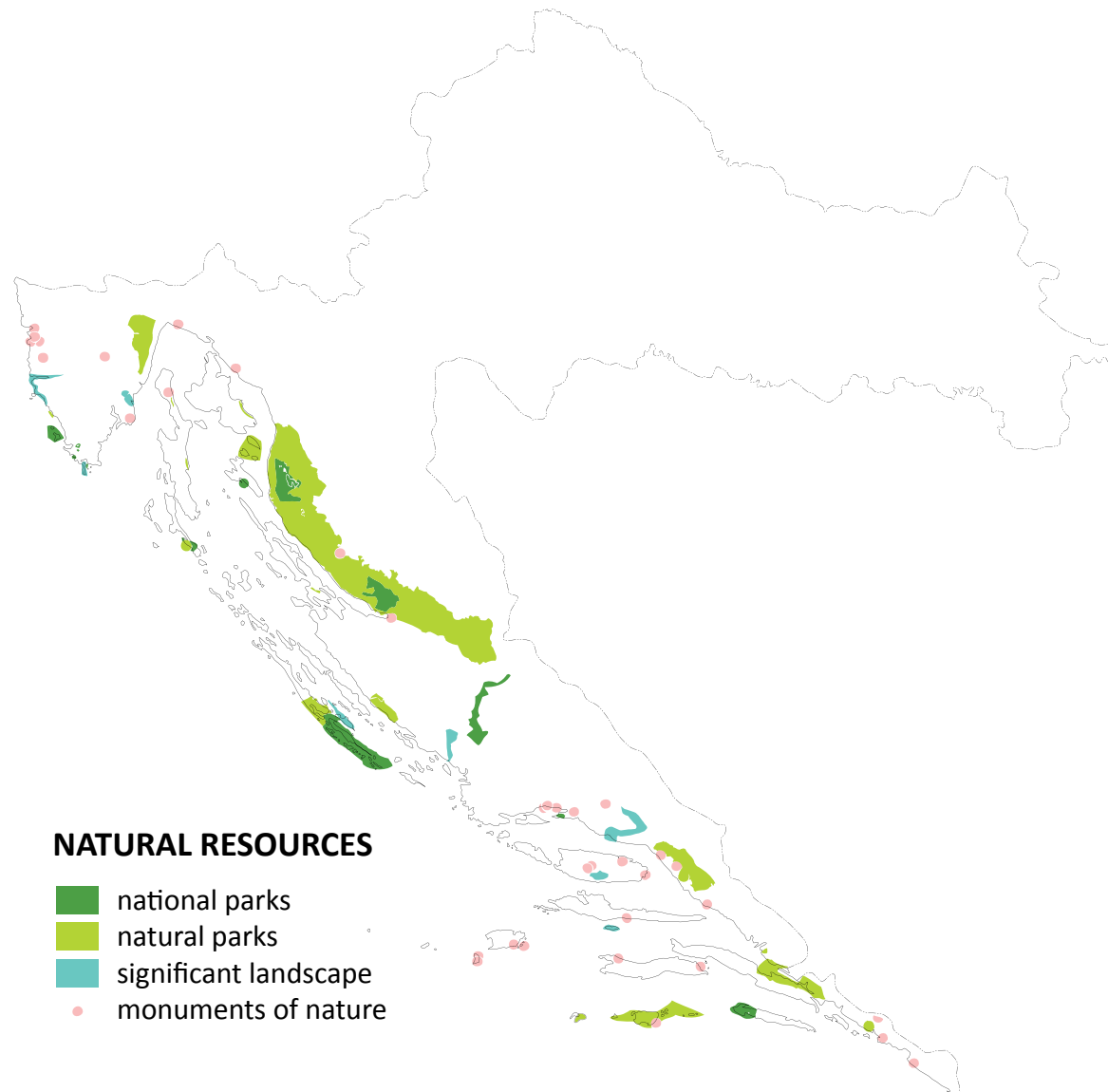
The Croatian Adriatic coast, is the part of the Mediterranean with most islands and coves, the total length of its coastline is circa 5835 km and it includes over one thousand and one hundred islands, tiny islands and rocks. In fact from the total length of 5835 km of coastline, circa 1778 km belong to the mainland and 4057 km constitute the length of the perimeter of the numerous islands and rocks. The Air distance between the most northern part, Cape Savudrija, and its most southern part, Cape Ostro, is equal to 526 km.

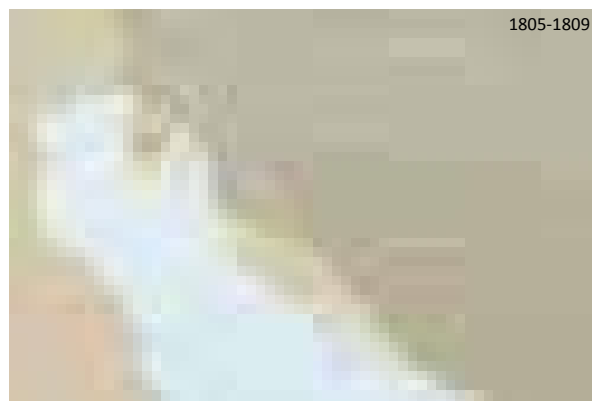
There are in total 362 towns and villages on the whole coast, around 40 of these settlements have a formal status of a city, but only 15 cities have more than 10,000 inhabitants. Within the broader coastal area there are a total of 138 units of local administration, in which 1,144,052 inhabitants live in 1262 cities and villages.

On the coast can be found 7 national parks, 8 nature reserves and other natural protected areas (“monuments of nature”).





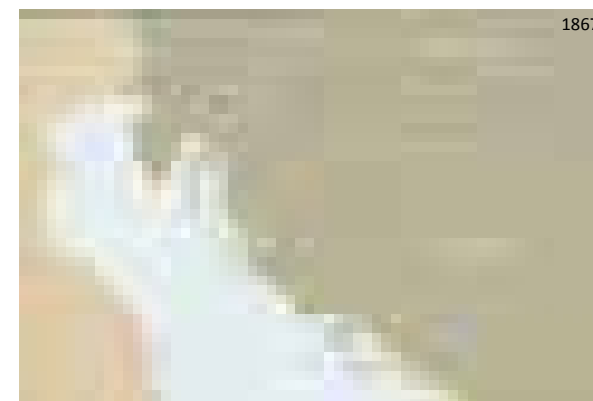




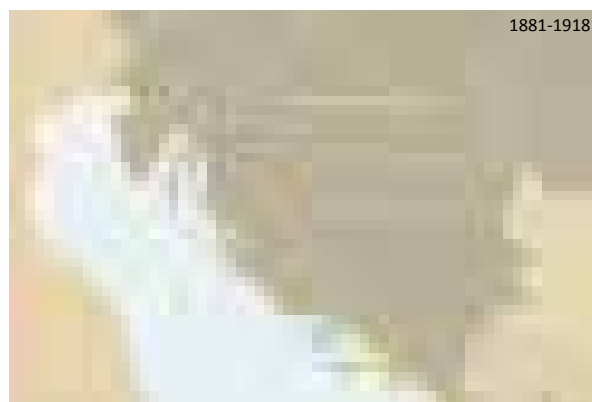
1805-1809



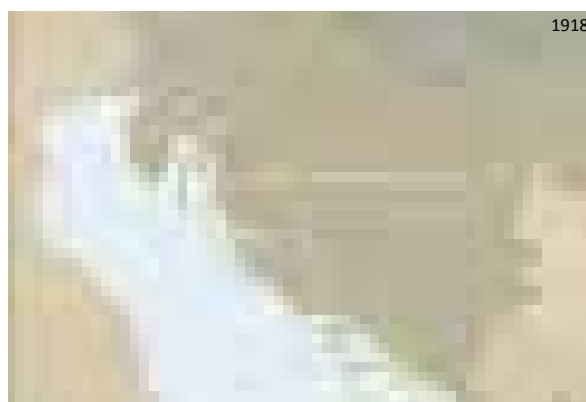
1809-1813



1867



1881-1918



1918



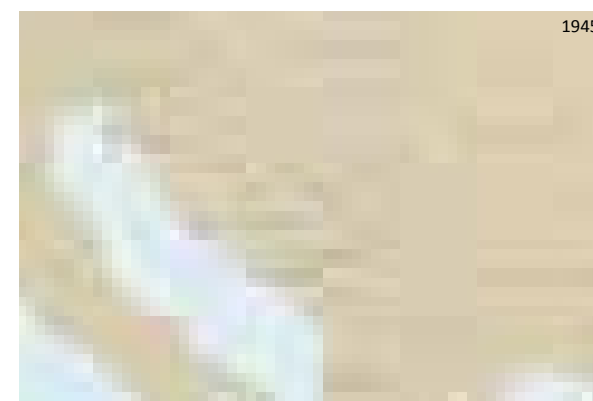
1918



1941-1943



1943



1945

A FERTILE DELAY

As a good way of representing the political instabilities on the Croatian Adriatic coast it could be useful to remember that its territories have been under control of five different political systems in the last hundred years alone. In certain cases, it would have been possible for a person to have had five different passports of five different states without ever leaving his own home place. The geopolitical instability of the region has profoundly influenced the way the territory has been transformed under economical, institutional and social forces in last century.

After the conclusion of the second world war, when all the eastern coast of Adria was united into Tito's Yugoslavia, the port cities in Croatia gained relative significance especially for their industrial, military and commercial potentials, tourism, in fact, was mainly national, and the purpose of the coast and sea, in this communist context, was to provide leisure and relaxation for the workers and their families, no big tourist infrastructure was planned to attract foreign tourists. Resorts and hotels were built on isolated areas of the coast, usually under direct management of some national industry, whose workers would use in summer the facilities. The resorts were not that common as in the western countries of Europe

simply because tourism, in the planned Yugoslav economy was never the economic priority.

Some of the cities on the coast have seen a great and fast development during the social regime of Tito, this was especially true for the industrial and port cities like Split or Rijeka, where new housing was built, new city neighbourhoods were erected, new forms of industries introduced, generally infrastructure was greatly improved and other cultural facilities were created.

Croatia became the most industrialized federal country together with Slovenia, and Split, as the main urban center on the Croatian coast and as the historical center of Dalmatia, grew rapidly attracting a significant amount of new population: 80% of the existing apartments were built from 1945 to 1990 and a university was founded together with cultural and sport facilities. Split went through a de-ruralization and densification permitted by strict city planning and new models of thinking the city, similar to Le Corbusier's *ville radieuse*, were experimented.

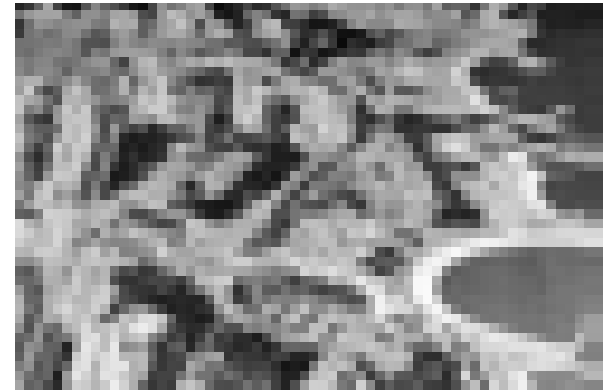
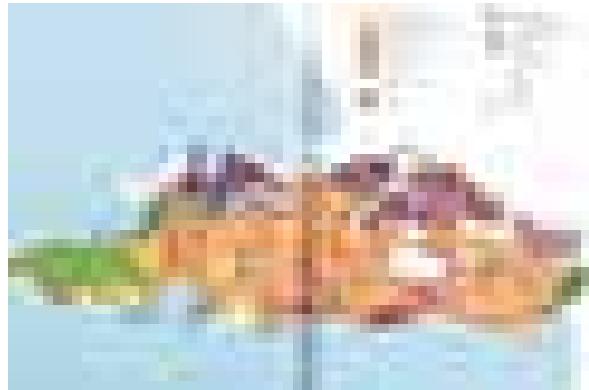
Similar to Split, the city of Rijeka developed as an industrial, touristic and transport center of Yugoslavia, it was, in fact, the biggest port in Croatia and Yugoslavia. The city's industry, predominantly oil refining, petrochemicals, shipbuilding,

electricity generation was responsible for the third of the occupations in the urban area.

In the rest of the Istrian region, in which a third of the total tourist accommodation took place, the relationship between tourism and the industrial activities was not so idyllic, the coastline seemed a fractured environment in which industrial, port and touristic activities developed alternatively.

In the city of Pula, the historical city center had no possible public opening to the sea and the waterfront because the industrial, harbour and military functions were considered more important for the development of the town. The urbanisation found space spreading rapidly over a difficult topography, characterized by isolated tower blocks, that found their urban surroundings later, with the insertion of new buildings into this already developed structure.

This industrialization of the two major coastal cities of Rijeka and Split, as well as that of others like Zadar, Pula and Šibenik, has delayed the urbanization of the rest of the Croatian coastline by providing jobs and income in the manufacturing sector and concentrating the growth in these centres has permitted to delay the use of the coast and especially the islands for touristic purpose.



SPLIT

RIJEKA



DUBROVNIK DURING THE WAR



In June 1991, Croatia proclaimed independence from Yugoslavia after a democratically held referendum and in that way the biggest part of Yugoslav coast became part of the newly founded republic, a bloody war and struggle for independence ensued and the Dalmatian region, as the most eastern region of Slavonija, were the most war affected territories of the republic of Croatia. The war had therefore a major impact on the coastal territories and of course on the tourism industry. During the conflict, that lasted from 1991 to 1995, the big majority of the villages and towns in Dalmatia were under bombardments or some form of attack, even main touristic attractors and world heritage sites such as the city of Zadar and the historic city of Dubrovnik were not saved from the barbarities. The connection with the whole of Dalmatia became even more difficult when the bridge of Maslenica was destroyed, cutting the region effectively in two parts. Some hotels and resort complexes along the coast, that weren't affected by war such as Opatija, Hvar or Makarska, became refugees centers further delaying their use for touristic purposes. At the end of the conflict, the Croatian coast was in a devastated situation.

In the war around 20,000 people of Croatia were killed, hundreds of thousands of people had to leave their homes and numerous companies went out of business. The economic difficulties were caused by the war and the big number of refugees but also by the loss of their traditional markets, incapacity to adapt to market economy and unsuccessful model of privatization.

The privatization model in particular reflected partially the complex and difficult political situation in the country after the conflict came to end. The ruling party (HdZ) willingness to assign direction of companies according to vicinity to the government and clientelism, rather than capacity, has brought to numerous bankruptcies, selling of assets, job losses and knowledge and human capital dispersion. After the war, Corruption became a bigger problem than reconstruction. Furthermore the nationalistic direction taken by HdZ, and the complete control over the media, in the aftermath of the war, may have won the successive elections, but have also contributed to the isolations from neighbouring countries and the counties of the Eu.

These self centred policies of the ruling party didn't make of Croatia a very interesting investment target and the difficulties with rebuilding and reviving the economy made the country unable to concentrate on new projects, when in 2004 some countries of the Eastern block started to join the European union, Croatia didn't even start the negotiation for the membership, even though the ruling party was changed by a new coalition in 2000.

The tourism, even without the help from the state, started to develop slowly, in the first years after the war, Croatia became a cheap destination for tourists from eastern Europe. Private and relatively improvised accommodation of tourists became a popular mean of income for inhabitants of the coastal cities that also started, mostly





SECOND HOMES AND TOURISTIC SUBURBIA



illegally, expanding their apartments. With time the popularity of the Croatian coast grew further, even in the countries with more spending power, so the “zimmer frei” apartments started spreading more rapidly, as a consequence in some tracts of coast, more villages became a sort of one and unique constant suburban settlement. An example of this development are Kastela in the Split area, formerly 7 medieval little towns, with their own historical centres, today form a one town of 30,000 inhabitants, and another example is the coastal area between Zadar and Biograd.

The administrative and legal framework of the new republic was a further deterrent to the creation of bigger touristic projects. The territory of the Republic of Croatia is presently divided into more than 500 local administrations, a number which is really high compared to the total number of its 4.284,900 inhabitants. The Constitution determines that the spatial regulation and administration lies directly under the authority of the local administration units, but it's question if such small administrative units are able to manage the use of space. In fact, these new small municipalities have caused the end of former cities' and regional planning institutes, leaving urban planning in the hands of administrative units with no tradition and experience in managing spatial organization and showing a radical decrease in quality. The result is a continuous change of the legal framework and the different interpretation of the regulations at the local level, that brought the state to try to introduce new order but paradoxically helped to

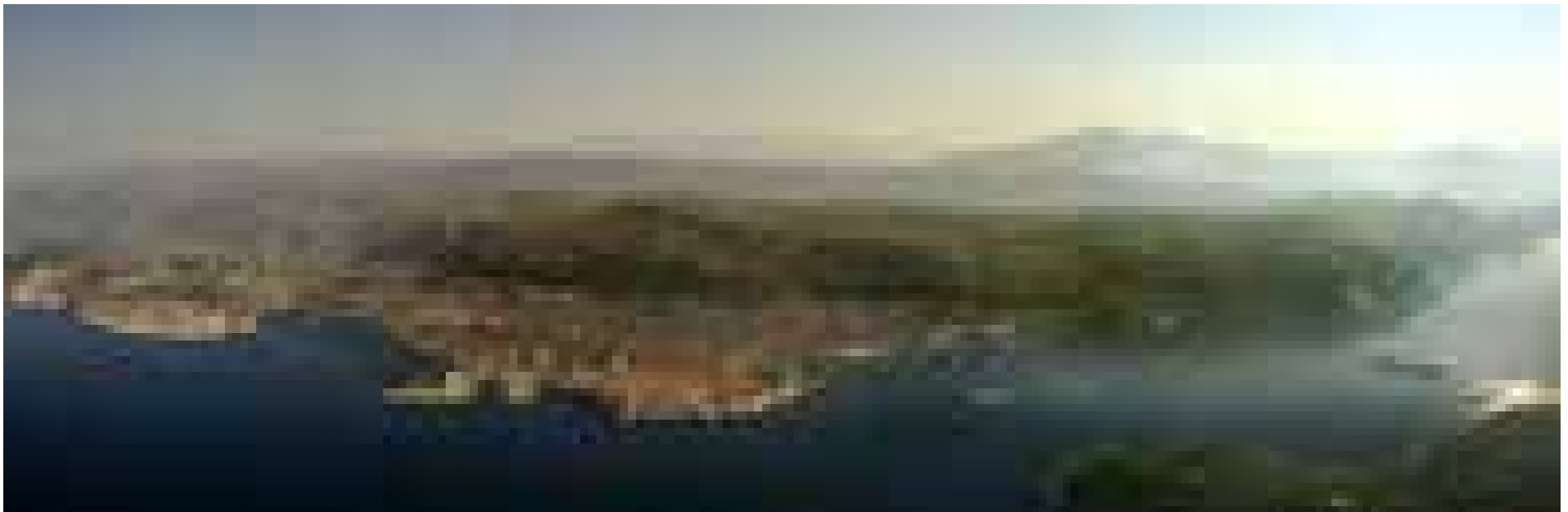
create new disorder, often even bringing to cases in which an already granted permit had been revoked.

Ownership of the land represents another bureaucratic hurdle, in the socialist period ownership did not constitute an important factor in realization and design of urban plans, the land-registry books were not regularly updated , so even today the establishing of ownership cannot be done lightly.

The political, legislative and administrative disorder, made it extremely difficult or slow to realize any building project and actually helped as a defense mechanism for the conservation of the territory, before a right legal and political framework could be even established and before a social consciousness for the protection of the environment was born. Any new capitalist country, in the era of the global markets, is vulnerable to uncontrolled financial forces. Paradoxically, the ineffective and inefficient system of state administration and the isolation policy adopted after the war were serious obstacles for a environmental degradation of the coastline, as instead witnessed for example in the Black Sea countries.

This phenomenon has been defined by Stefano Boeri, in the Editorial of the 2003 Zagreb Salon of Architecture, as “**fertile delay**”:

“... Croatia today is being offered, more than any other eastern countries, a considerable chance to use its delay in a fruitful way.. How to redirect the energies that pulsate in the diffusion of family homes and force them to also produce public space and infrastructures? How to prevent the islands from becoming tourist theme parks and to have them retain the complex diversity and way of life?”



PLANNING AND THE FUTURE

During the last decade plans for large strategic touristic projects on the coast have been promoted by the government and local authorities for their fast economical benefit. Those projects have risen a big debate for the way they were presented and for their controversial nature as they will definitely have a great impact on the local environment. Since the plans have been started and largely supported by the government, most of the studies of impact on the environment and other type of protests against them have been neglected but, due to the economical crisis and the unfavorable atmosphere for investors in Croatia the projects are still just on paper.

One of those projects is the golf park planned on the Srđ, a natural plato on top of Dubrovnik, a city with great hystorical and cultural heritage. The golf park will occupie an area of 350 Ha. The propertie of a golf course, diametrically opposite to the arid mediterranean maquis, and the large guest capacities and apartments planned in the area will have a great impact on the environment, something that the Croatian chamber of architects, the Green Party and other organisations hold for unacceptable.

Another controversial project on even bigger scale is beeing planned in Pula.

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MASTERPLAN:
BRIJUNI RIVJERA

BRIJUNI RIVIJERA

Knowing that the intention of the army to free its territories, the local politic elite started planning the future use of the gulf coasts already in 2001, beginning the project that would later be known as “Brijuni Rivijera”. With the first project it has been the intention of the authorities to make Pula a touristic city by converting all the military facilities into objects of touristic interests, and reusing the free coast for building new hotels, apartments and villas, nautical marines and golf playgrounds. The plan didn’t involve just the ex-military areas in the bay, but also other territories outside it on the coast in front of the Brijuni islands, creating a mega-project composed by areas that would be planned, on directions established by the competition, by foreign investors, who would use the facilities for 66 years.

On the 27 September 2005 the council for territorial planning of the Republic of Croatia has refused the study for the “Concept of the best use for the chosen areas of the project Brijuni Rivijera”, defining especially unacceptable the sequencing of all the proposed touristic capacities on a continuous coastal line, with no visible intention to organize it in depth of the territory. Also a discontent was present with the lack of interdisciplinary approach and the spread of villas that are seen as threat to the need for the conservation of the coast.

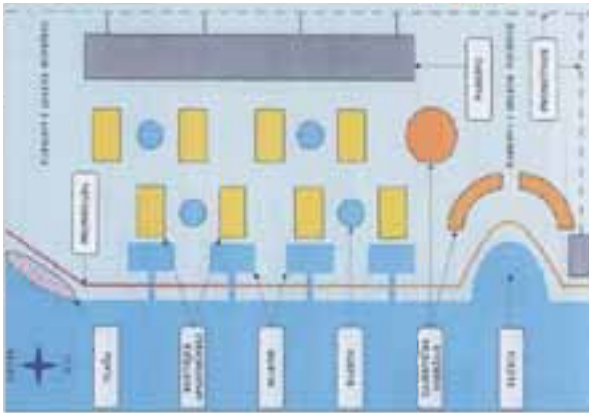
Despite this decision the concept for the areas of “Brijuni Rivijera” company’s interests remained unchanged. The new adopted Concept from 2007 has as goal the creation of a spatial-functional

unity with a characteristic of a Riviera with a high ambiental and offering quality. From the 7 original locations, 3 are inside the administration territory of pula, from which 2 can be defined inside the gulf.

On the 7 locations (Barbariga-Monfurno, Pineta, Valbandon, Hidrobaza, Uvala Zonki, Otok Katarina - Mulimenti, Muzil) a creation of more than 10 000 beds is foreseen. Changing government, financial problems and difficulty to find investors the project has never seen the light and is today seen as just 4 locations (Pineta, Hidrobaza, Katarina-Mulimenti, Muzil) and their contents:

**PINETA:**

On an area of 50 Ha of pine-woods, new hotels with capacity of 650 Beds up to a total of 1600 beds are planned (with exclusively 4-5 international stars), furthermore a wellness center with tennis fields and swimming pools, villas with pools for up to 400 people are supposed to be built.



HIDROBRAZA:

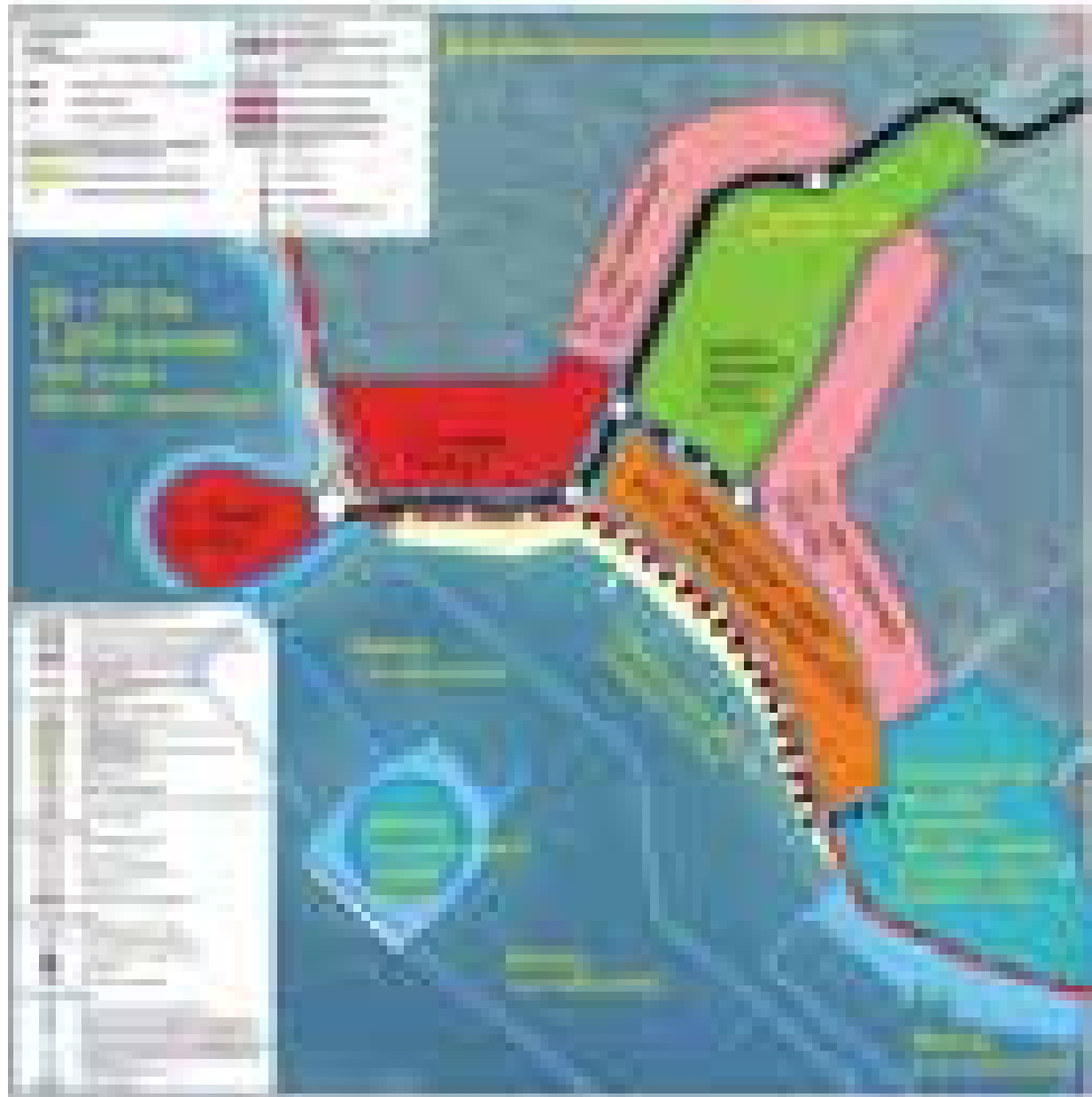
The location is situated on the northwest edge of the city of Pula, with a good connection to the existing infrastructure and only 7km distant from the Airport. The area 37 ha large. The location presents some ruins as it has been a former military hydroplane base during the monarchy time. In the area 5-8 apart-hotels with swimming pools or a touristic village with a resort hotel and villas in traditional style architecture. Also some nautical marines, 11 restaurants or bars, shops, fitness center and tennis fields are planned. This plan is going through constant changes due to the local authority of the near villages, whose inhabitants will have limited access to the coast if the project takes life.





OTOK KATARINA - MULIMENTI:

The area is located on northern part of the port of Pula, with a view of the city center, amphitheater, shipyard and parts of the Brijuni islands. The location consists of a military complex started for the needs of the Austro-Hungarian defense system, with an experimental Naval Air Station built on the island. Later a new complex of the Royal Navy Submarine School was established. On 27 Ha of terrain 2 Marinas for nautical tourism are planned for 600 yachts in the sea and 1000 of them on the dry land with all the services, a 5star hotel for 200 beds and a complex of public mixed use with a gastronomic center.





MUZIL:

The peninsula of muzil is definitely the most interesting location of the whole idea, because the large peninsula is closing the port on the southern side, distant only 3km from the city center, but is also oriented to the open sea. Besides being the largest location of the Project with 180 Ha, it is also the most controversial because of the idea is a future golf field with hotels, nautical marines and lack or none public interest.



CRITICISM

MUZIL AND THE VIENNA'S RING (IN RED) COMPARED:



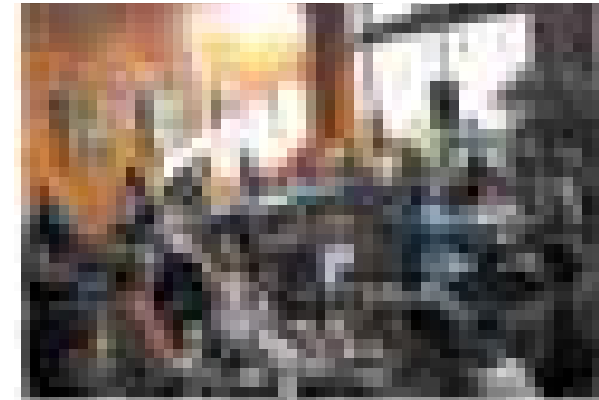
It is clear that with such plans, justified with the final demilitarization of the city and creation of work places, the scenario that negated territories will remain as such due to the lack or absence of public interests in evolved areas is more than possible. Reconverting those areas so dramatically into high profile touristic resorts will keep them distanced from the city and its inhabitants not less as when they were wired and of military purpose. It is hardly debatable that the project started from a reflection on the needs for development of the city and its neighbor counties involved. The representatives of Pula and other counties didn't participate in the preparation of the method by which the land under their administration is going to be treated.

Many local architects and intellectuals have tried to organize excursions into those areas to inform the inhabitants of what they never had and now are losing again the new plans, especially for the two locations inside the port: Mulimenti and Muzil. The approach of industrialization of tourism is a big threat for the Croatian coast in general and giving all the attractive areas into concession for 66 years to build megalomaniac touristic capacities is a big risk. It is a threatening monocultural approach as it is very hard to understand the trends of market for such a long period of time. No question was raised of what will happen after this period will expire. By creating a large elite Riviera of merely touristic content, dictated by

one single company, financed by investors whose goal would be to maximize profit in the 66 years of concession and no word on sustainability could have catastrophic effects on the integration of this areas into the existing environment. The total area equals almost half of the area of the entire city, and would be planned in the future exclusively by investors instead by the authority and inhabitants. In alternative, we could argue, the development of the bay should happen in a more natural way through time by letting the inhabitants, big but also small and different investors and authorities all work on ideas that would slowly take place in reality.

Another issue is the typical type of unsustainable coastal tourism that has shown itself not to be able to prolong the season to more than 4 months, minimizing the economical benefits for the country and making the resorts empty like ghost towns during the major time of the year. The plan of "Brijuni Rivijera" is going in this same direction without solving the problem of unsustainable tourism and not thinking of alternative uses for the areas in question. It is hard to imagine that it would be possible to overcome the hard economic situation and recession, to solve the problem of unemployment thanks to such a seasonal activity. The environmental question is also of big importance. The two large areas in the Port have been preserved in their natural state thanks to the long presence of the army, but such approach

as the one that is promoted by "Brijuni Rivijera" would also have major consequences on the environment. This applies particularly to the plans for the area of Muzil. It is here important to mention that in the year 2008, the Croatian Parliament, proclaimed the law by which the construction of golf courses was defined of special interest for the Republic of Croatia allowing the exploitation of forest land for creating high quality golf destinations. Also the law defines the minimum area for a golf course of 85 ha, and the possibility for the construction of services on 25% of the area on which a golf course is planned. Without comments on this controversial law it is clear that such a project for the peninsula of Muzil, an exceptionally valuable location, would be catastrophic for its natural values and the typical Mediterranean woods. The law on golf courses has ceased to be valid on the 25th November, 2011. And last, but not less important, is the cultural values that can be prescribed to some of the ex-military areas due to their important historical interests for the city of Pula. Very little renovation and reuse of existing facilities is planned with the project in question.



POTENTIALS FOR DEVELOPMENT



THE ISTRIAN REGION

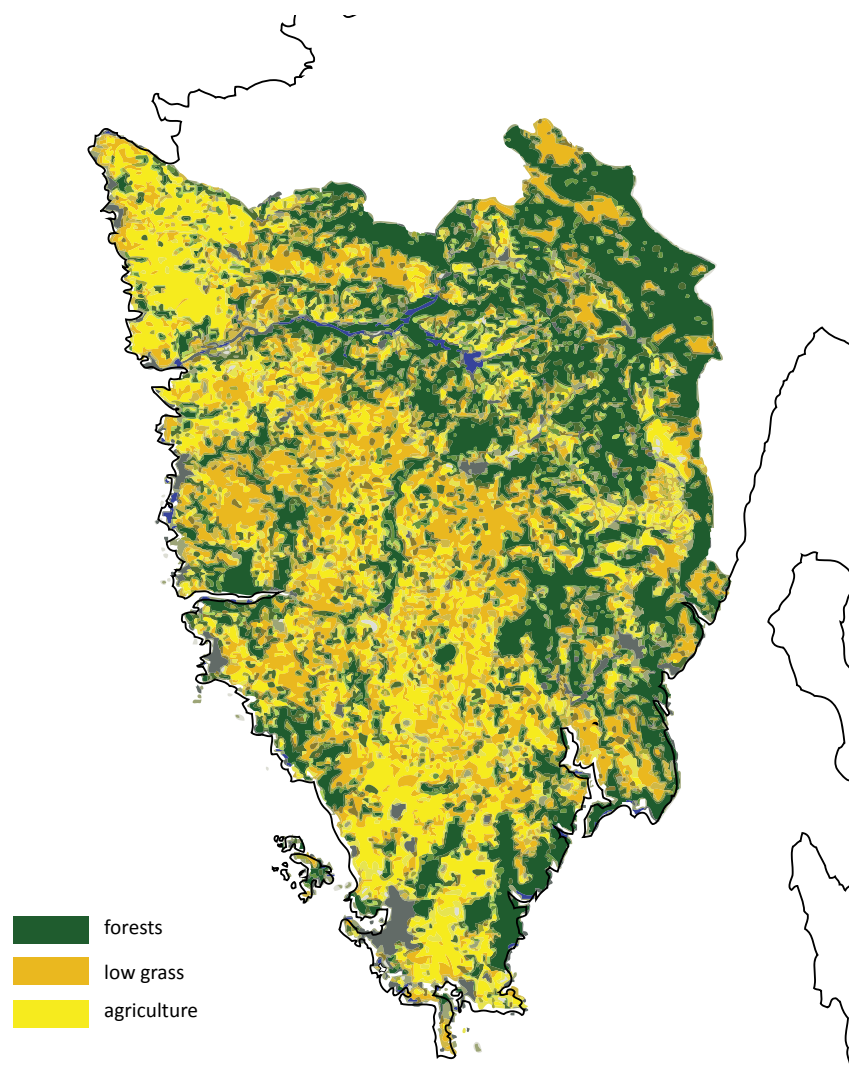
The Istrian region is situated on the extreme north-west of the republic of Croatia, on the ground border with Slovenia, and sea border with Italy. This location is very important in historical terms, as the territory was always closer to the western movements, than eastern and balcanic matters.

Geomorphologically the space is divided into 4 entities:

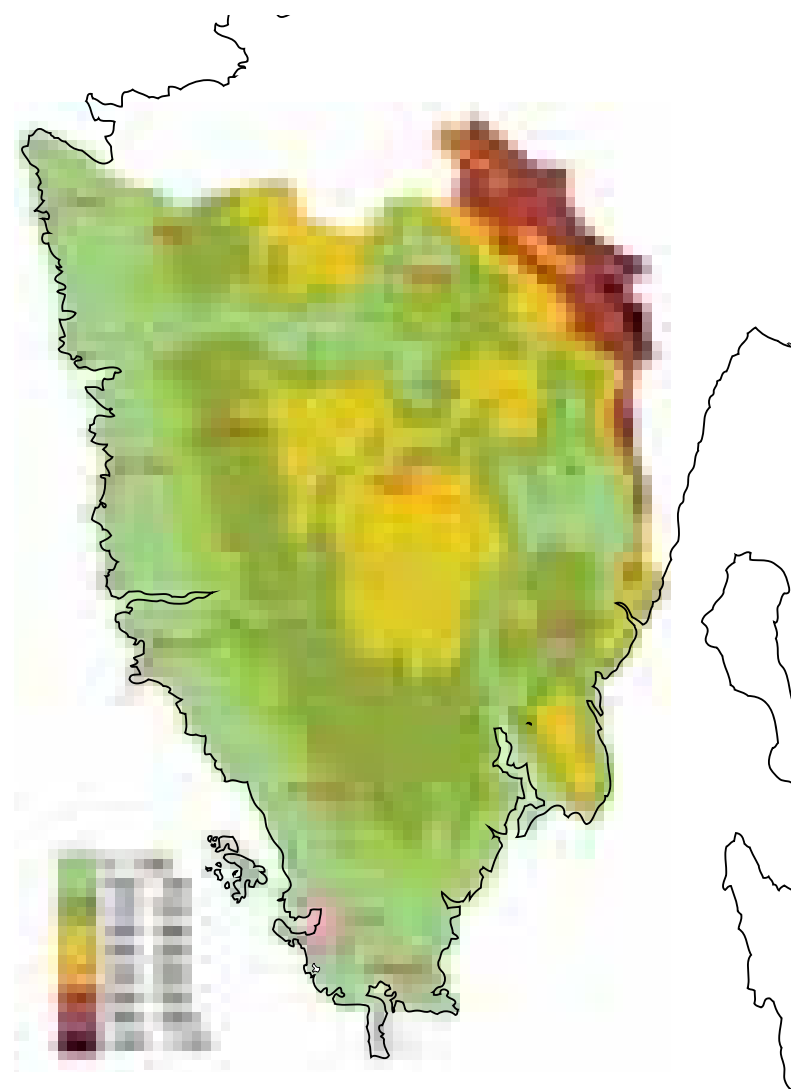
- 1- the plan part of south and western part, characterized by flat land and hills whose frequency increases in the direction to the interior.
- 2- the central hilly region marked by developed relief.
- 3- the highest mountain part in the far northeast of the county.
- 4- areas of fields and valleys of the northeast and middle part, presenting very fertile land and river flows.

Beside of being touristically very attractive because of a favorite position that is close to the continental Europe, and because of its coasts that are available and to the greater part not transformed due to the uncontrolled growth of anthropogenic pressures, the region has a great potential given by its inland parts. Those areas are extremely interesting for their historic, cultural and natural potentials. Even if the types of soil are not the most appropriate for extensive agricultural

VEGETATION VARIETY:



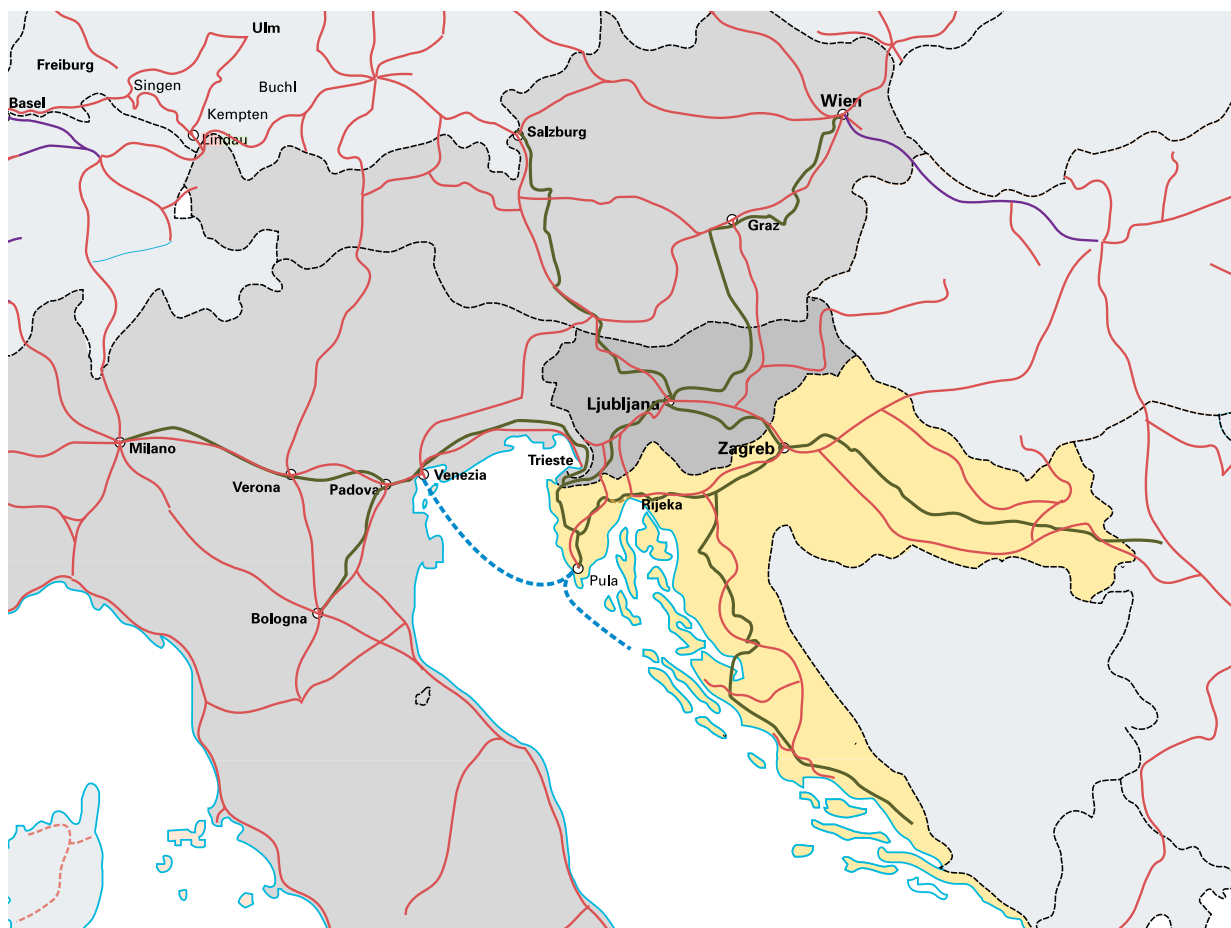
MOUNTAINS AND HILLS:



production, the natural resources are relatively favorable for the agricultural sector, traditionally developed in forms of olive branch, viticulture and farming. The basic ways of land use are: 30% arable land, 23% grassland and pasture, 43% forests. The forests are very important for their rich variety of forest fruits, especially the truffle, which is found only in rare parts of the world. Unfortunately, recent trends of litoralization have brought to an anthropogenic pressure on the coastal region and a depopulation of the inner land and degradation and neglect of rural landscape.

The total number of residents, according to the 2001 census, is 206,344, or 4.65% of the Croatian population. The spatial density in is 73.4 inhabitants per km², or slightly less than Croatia (78.4). The population is concentrated around the small towns (71% live in cities, and 29% in municipalities) and the coast (in the coastal JLS has about 88% of the population, while only 12% live in the inland). The density of coastal areas (93 people per km²) is more than three times higher than the inside (29 per km²).

INFRASTRUCTURE AND CONNECTIONS:



Infrastructural problems are also one of the causes of loss of population from rural areas due to the undeveloped public transport. This is mostly caused by the lack of investments the state to improve the situation, especially in railways. There is a relatively dense network of public roads, which are one of the basic factor in the economic development and of great importance for tourism. With the construction of the “Y” the whole region has been directly connected to the Croatian and broad international road net.

The total length of the railway in the county is 152,5 km, but is not connected to the rest of the Croatian network and is only functioning locally. In such a situation the railway system is insignificant in comparison with its capacities and potentials and has lost completely its economic function. The rail line that was connecting Porec to Trieste and therefore the rest of Italy was constructed during the Austrian dominance, bringing economic progress to towns along its route, and closed during the fascist . It is today a well known picturesque bike route.

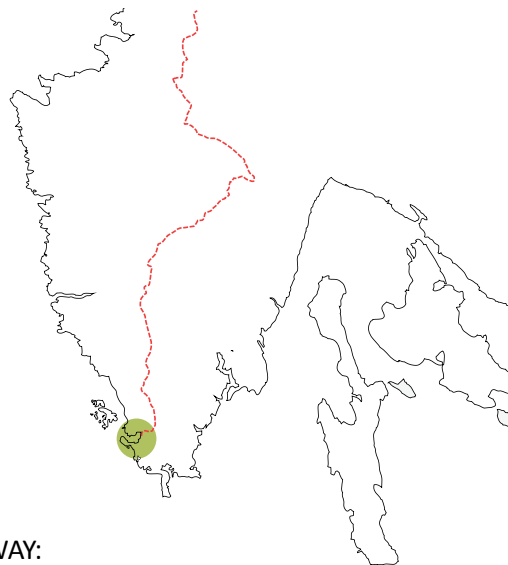
The maritime public transport is also not developed if we consider the potential of passenger traffic in the Adriatic sea due to the near position of the Italian coast and the number of populated Croatian islands. The most frequent line is the fast line between Pula and Zadar that stops on some islands on the way, but it is just a seasonal route. The number of passengers, mostly arriving and departing in Pula in the summer season, is growing, but the missing railway system and passenger terminal is greatly retarding the development.

The domestic and international air traffic of passengers occurs through the airport of Pula. Due to arrival of low-cost companies and growth of tourism, the number of passengers is rapidly growing from one year to another and can be defined satisfactory.

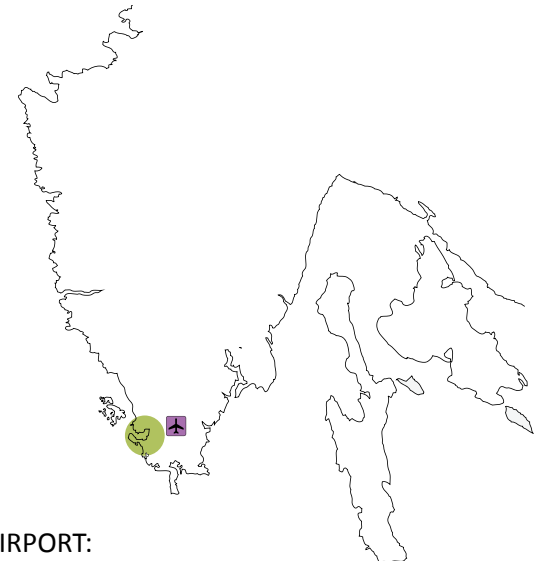
The lack of public transport, especially in small towns, but the well developed road system has a big impact on the traffic, especially coast towns during the summer period. Car usage is very common and for some the only way of moving. Due to developed tourism some towns experience great traffic problems. This is also a problem in Pula, which has a relatively satisfactory public transport system inside the city, but moving from neighbor towns and villages is exercising a big pressure on road traffic. Of course, the problem is not only that moving is difficult but also parking facilities are insufficient.



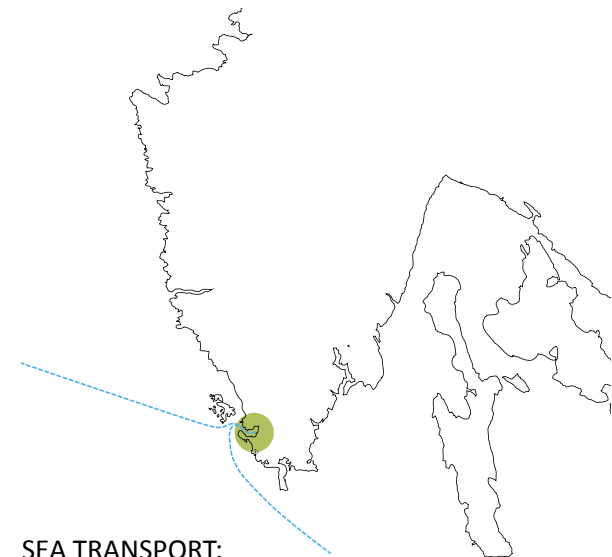
ROADS:



RAILWAY:

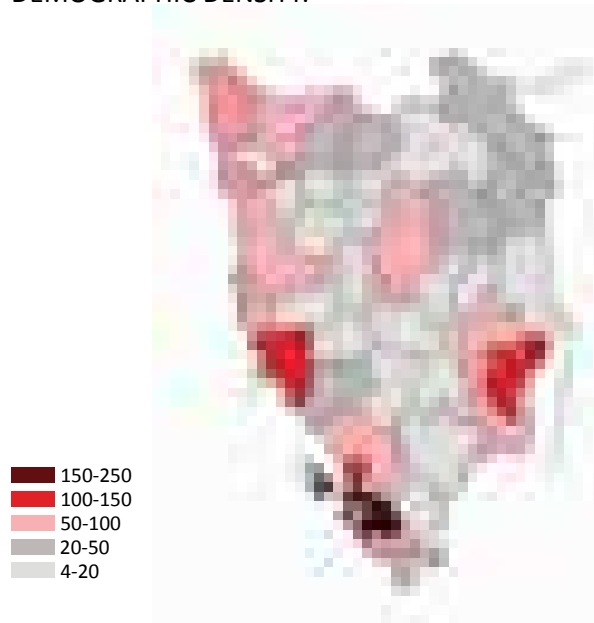


AIRPORT:

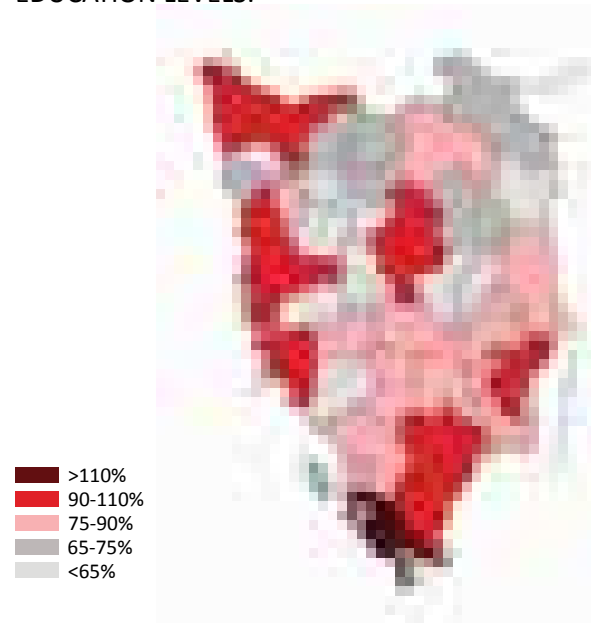


SEA TRANSPORT:

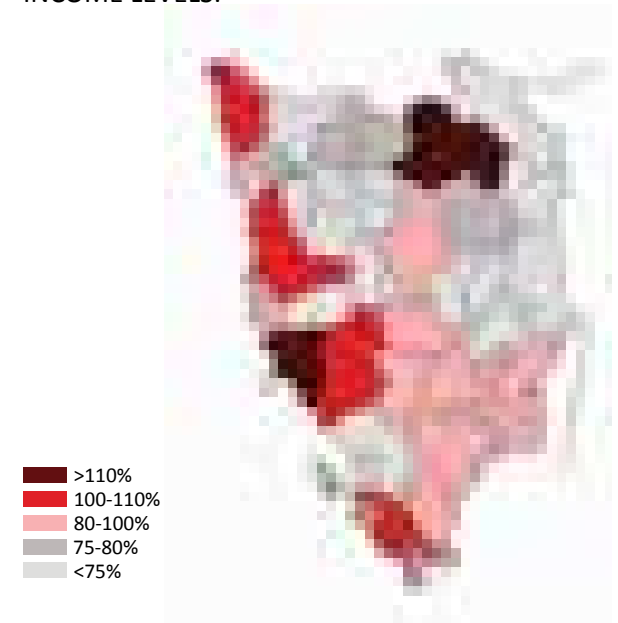
DEMOGRAPHIC DENSITY:



EDUCATION LEVELS:



INCOME LEVELS:



Measuring the height of GDP, Istrian county is on the first place of all 20 Croatian counties (2007), right after the city of Zagreb. The BDP of 12.463 Euro per capita is 1/4 bigger than the Croatian average of 9.656 Euro, but still a half of the average of 27 EU Countries. The GDP of the region has been growing from 2001 to 2007 for 85,5% but a fall is expected due to the global economic situation.

Between 2001 and 2009 the employment rates were growing with 11,81% but due to the strong economic crisis in Croatia are growing minimally in 2011 with 0,04%. In the same year the unemployment rate was 8,5%, much lower than in the rest of the country where it was registered to be 17,8%.

In the economic structure of the county the 37% of the income is made by industry, with shipbuilding being the strongest industrial sector. It is clear that the Uljanik Shipyard is the main company of the county.

Agriculture and fishing is bringing the 0,2% of the total profit, which is a very low rate for the potentials of the territory. The trend of the depopulation of the countryside and urbanization of the coastal area is one of the reasons that agriculture is losing its importance in the economy. If we take a look to the development rates of municipalities a notable difference can be seen between coastal and inside regions, with the exception of Buzet. The western coast, where the bigger centers are is the mostly developed part. The education picture is a mirror of the development situation.

The economy in the county is mainly missing

specific educational programs in the fields of industry, technology and land use. Youth population have to leave the county, and most of the times also the country in search for education, a trend that often see them not coming back. There is a urgent need of relaunching the countryside by valorization of its touristic and gastronomic potentials and connecting them to the coastal touristic offer.

Tourism have an important role in the economy of the region. In 2009 the county was visited by 2,75 million of tourists (25,2% of Croatia) that realized 18,1 million of night overstay..

47% of the total capacities are given by camping places and only 11,2 % by hotels, 25% by private homes and the rest by tourist resorts and apart hotels.

Istria provides valuable, attractive and important natural, historical and cultural resources, as well as a strong regional identity and preserved environment as the basis of dynamic touristic development. By such a division only 20% of the capacities are realized by purpose-built touristic structure in form of hotels and resorts which is uncommon for Mediterranean coastal tourism trends. Although camping places and private stays have positive influences and benefits on the environment and existing social structure they are less profitable and bring less employment. If we add that tourism is only arranged along the coast and have a very seasonal character, we could argue that tourism still leave room for development. If we exclude massive coastal tourism with the wish to avoid to put additional pressure on the coastal

environment we have to search for alternatives prolonge the season and move the pressure from the coast onto other areas:

- the diversification of touristic products and services (cultural tourism, active tourism, gastronomic tourism, event tourism..)

- development of rural tourism in the countryside (gastronomy, biological and ecological food production, wine roads, olive oil, bike routes)

To achieve the second one the infrastructure has to be built and the agricultural sector has to see improvements.

Traditional Istrian agriculture consists of olive growth and production of high quality olive oil, viticulture, production of various horticultural crops and livestock. Aside from typical olive sorts there are two important autochthones species in agriculture: the red specific wine called Teran and the autochthon cattle Boskarin.

Istria is a north edge area for growing olives, which is the predisposition of having oil of high quality from autochthon sorts. Due to the particular soil and climate the territory is very suitable for olives and it is the most growing type of agriculture.

In Istria there are 2,610 wine producers growing mostly Malvazija (61%), Merlot (13%), Teran (8%), Cabernet Sauvignon and Chardonnay (3%), and 55% of the vineyards are older than 35 years. 79 producers have the protection of controlled origin.

Traditional forms and two different types of wild natural resources in the form of sea fishery on the coasts and forestry with forest fruits, hunting and the truffle on the inland make the region extremely

rich in potentials for the future development. The touristic sector should here function as the market for high quality products, as well as see in agriculture another important touristic resource. However, the current agrarian structure is very unfavorable for intensive development of modern and specialized agricultural production and represents a major hurdle in achieving production competitive in European agriculture. There are very unfavorable possession sizes and pitches with an average size of 6.4 ha, which complicates the application modern technologies in the production process and are obstacles in the process of enlargement of holdings. There are less bigger companies and around 30% of family farms are registered as agricultural producers for market production, all the others are working for their “own consumption” or they abandoned agricultural production, which means that their land is neglected and untreated. Another problem, like with other economical sectors is the lack of specific educational programs, especially in the application of modern technologies. To have the abilities to grow and enlarge the growing of typical regional sorts, especially in vineyards and olives, the region need the developed nursery production that should ensure sufficient and good quality planting material. In such a situation the formula to success have 3 steps: enlargement of properties use of technologies and new knowledge, recognizable branding of the product. Also to prevent the autochthon sorts from disappearing, they have to be protected, developed and promoted by institutions, schools

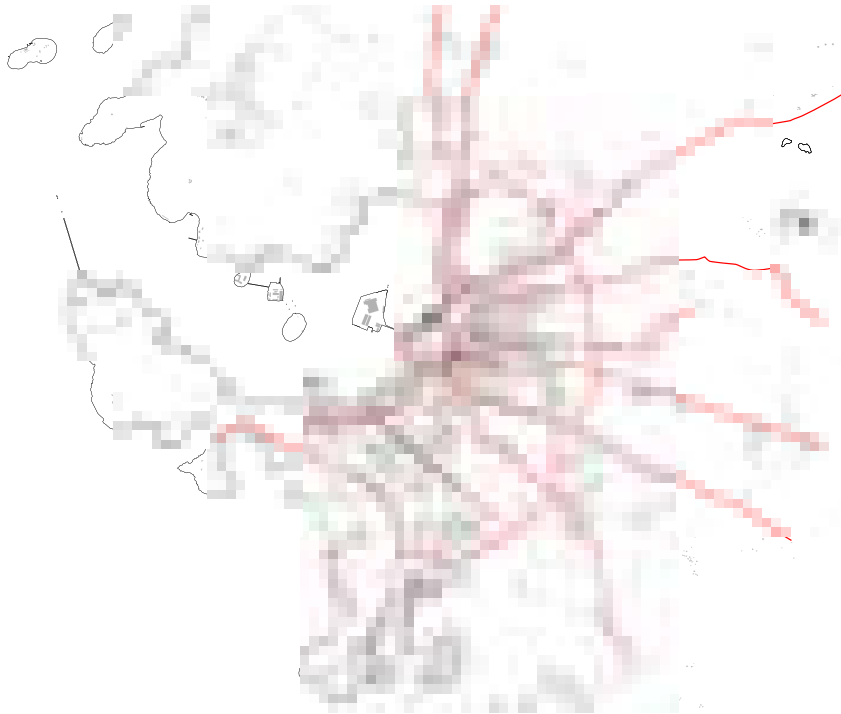
and universities.

Various strategies are possible to develop agriculture but preserve traditional products:

1. Creation of development centers to provide infrastructure for organizing the activities that scientific, professional, educational institution will implement. Those would be centers for controlling the products but also where individuals from various segments in agriculture would meet to exchange ideas and get the knowledge, qualify and analyze products, present, sell and buy them. This would also be an important step in the networking of small producers to have the possibilities to be globally more competitive.
2. Branding not only the products but the whole rural region trough high quality products, ecological production, inovation, biodiversity and rural tourism.
3. Blur the border between urban and rural territories and intensify their rapports to make these two systems cooperate (urban farms, small gardens for inhabitants, public transport from city to countryside, marketing of the rural regions in urban centers..)

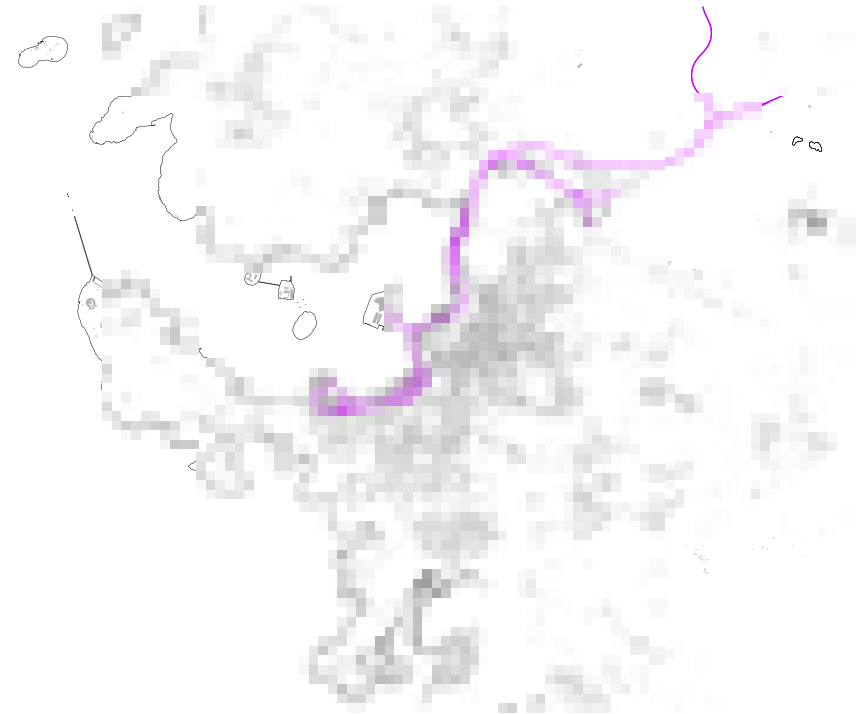
THE BAY OF PULA

THE REGION AND THE BAY



MAIN ROADS

- Radial system is connecting the smaller settlements to the city center and is creating the directions of city development. It also causes major traffic problems in the center during summer months.
- Endpoint of Highway, (570km to Vienna)



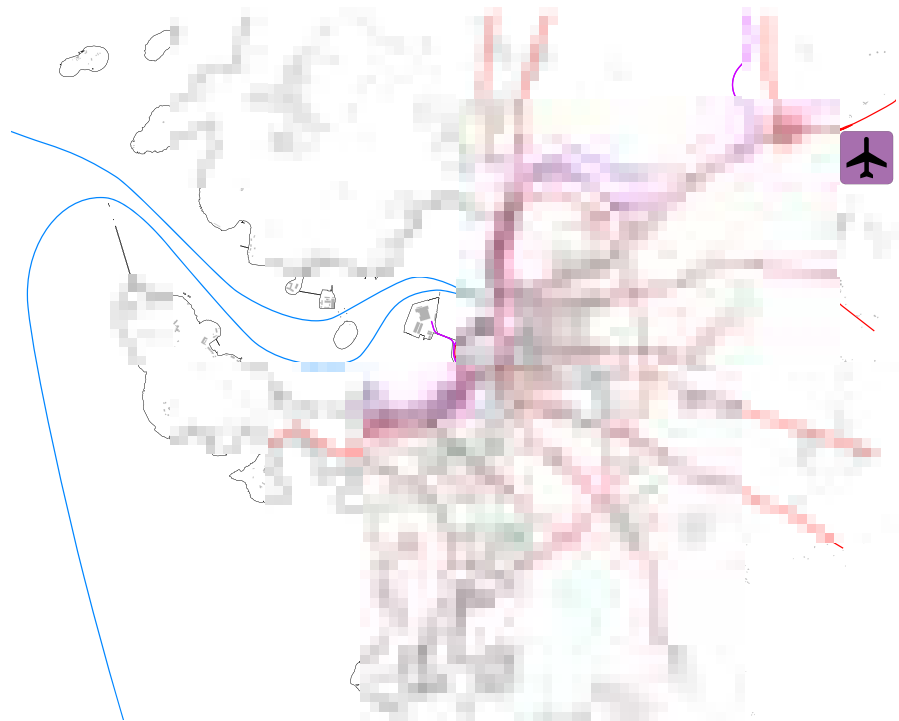
RAILROAD

- Mainly regional and insignificant in comparison with its capacities and potentials
- No economical function
- The railway station uses just two platforms leaving most of the old services abandoned
- The system is used by the shipyard which causes that the railway crosses the whole public waterfront



AEROPORT

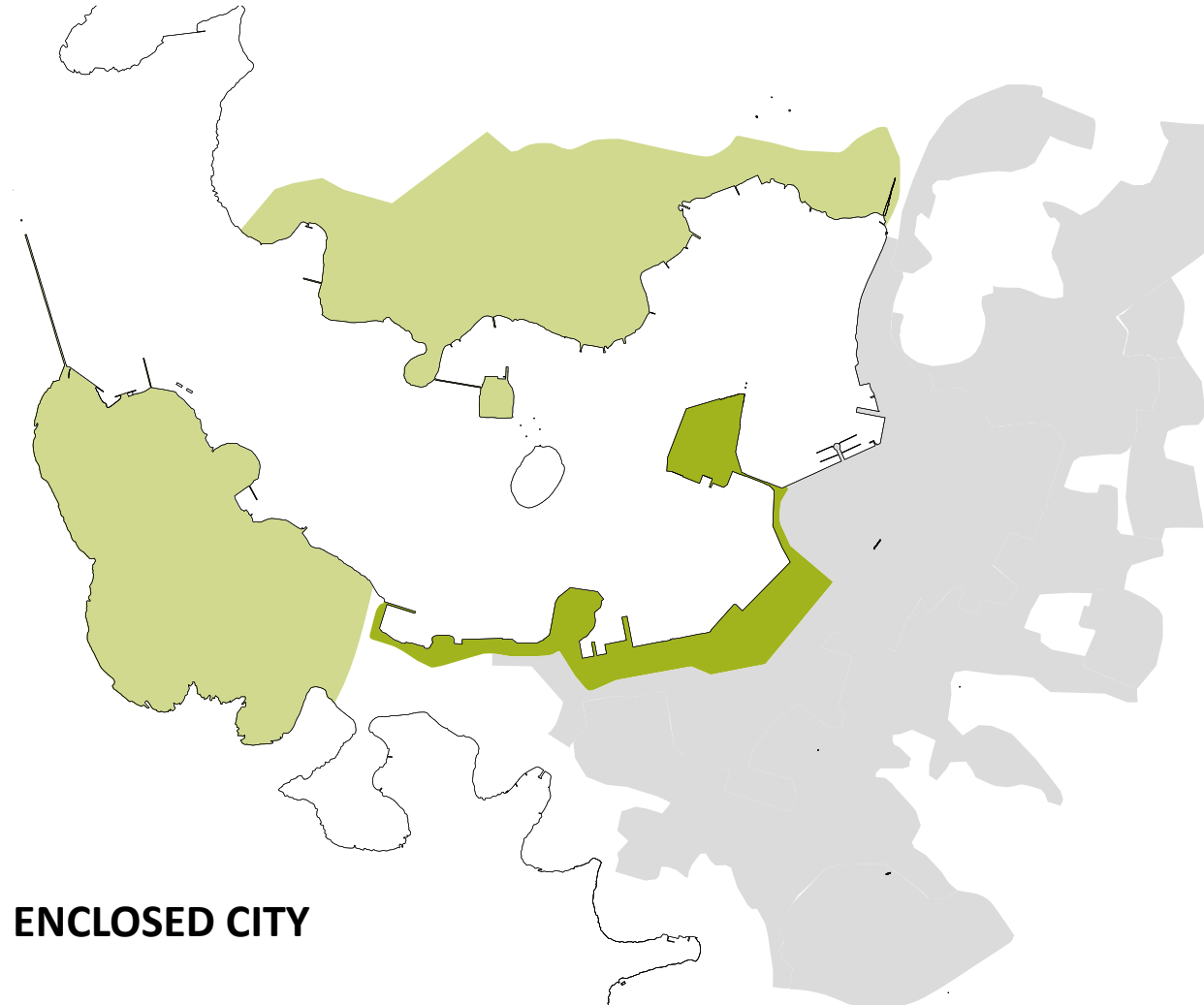
- In constant growth due to tourism growth and the interest of low-coast companies
- Direct flights to: Moscow, Kiev, London, Manchester, Paris, Nantes, Marseilles, Toulouse, Amsterdam, Charleroi, Munich, Cologne, Frankfurt, Oslo, Vienna, Belgrade



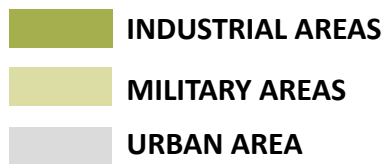
COMPLETE INFRASTRUCTURE

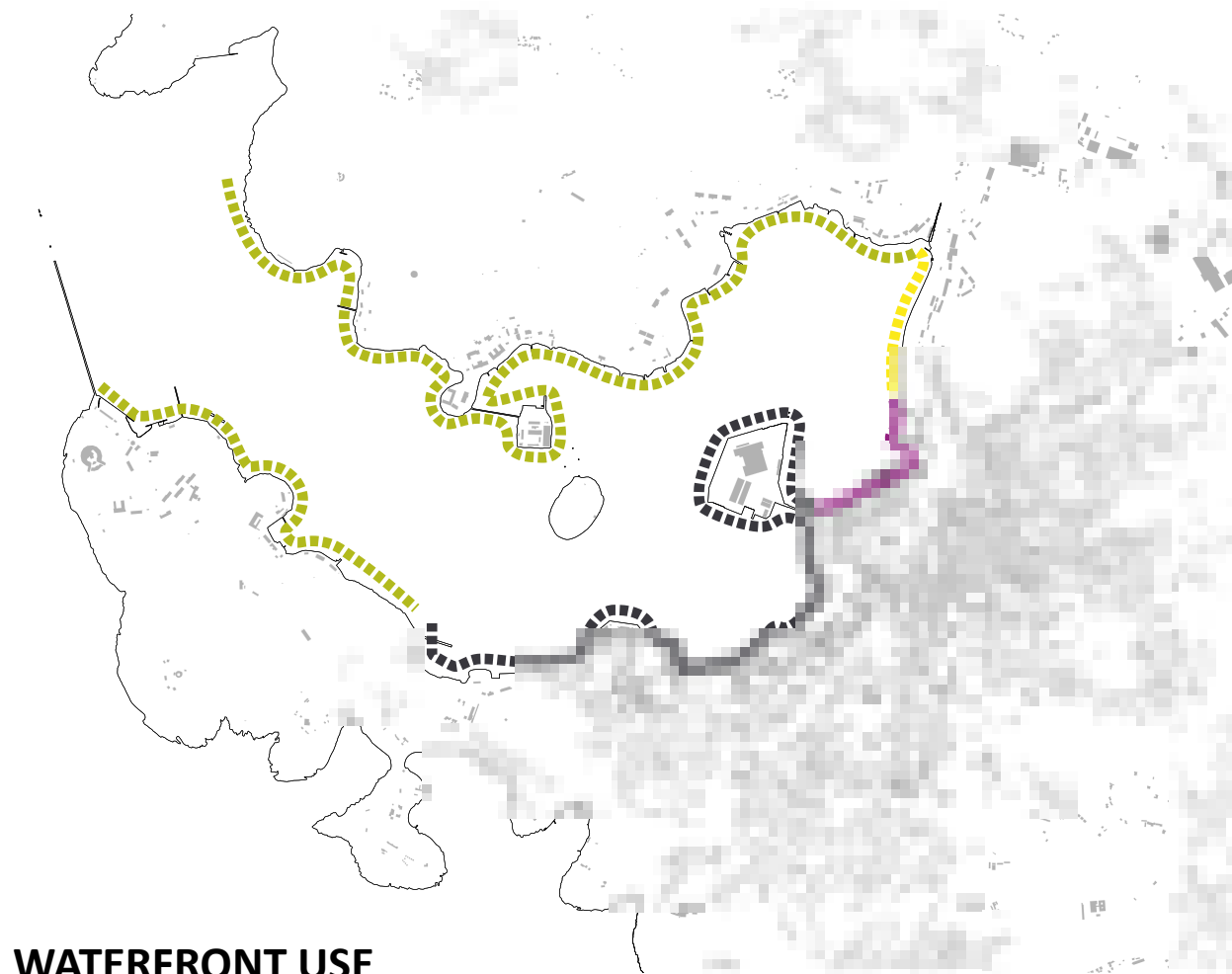
- The complete infrastructure image of the city shows te enorm potentials in development due to the proximity of the rail station and maritime port
- The rail already connects the marittime port to the airport
- The city needs a modernisation of the infrastructure services to develop tourism and the functionality in the whole region

A CITY WITHOUT CITIZENS







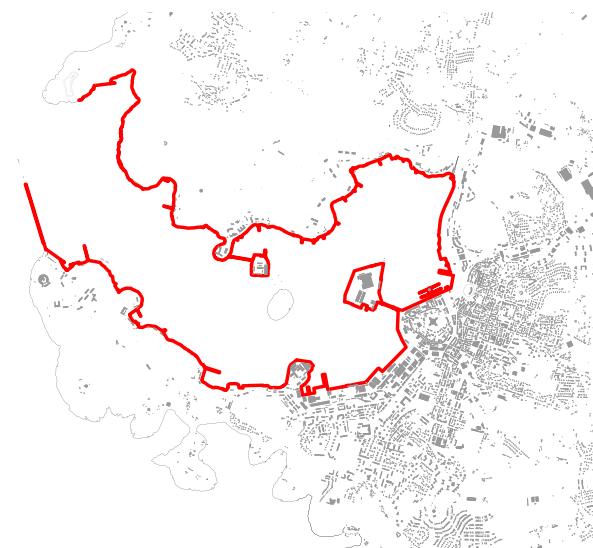
ENCLOSED CITY





WATERFRONT USE

-  **NO PUBLIC ACCESS: ex-military areas**
-  **NO PUBLIC ACCESS: industrial use**
-  **PUBLIC USE: marina, fishing and touristic boats**
-  **PUBLIC USE: disuse, illegal dockings**



BAY COASTLINE - 24656 km

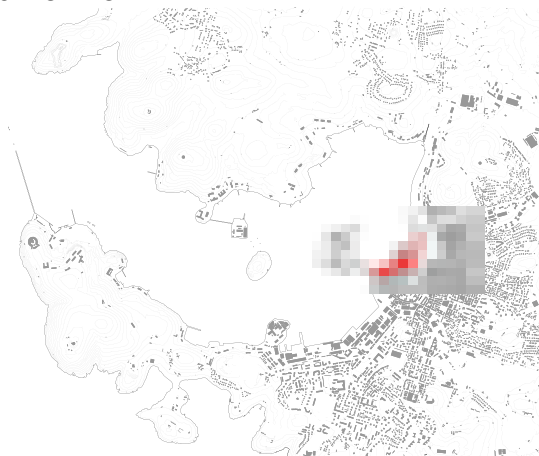
SUBDIVISION OF THE BAY AREA

For the purpose of this work a preliminary study of existing urban situation, natural resources and development directions has been made. The main objective was to propose a site development that would improve the touristic offer of the city and provide supplementary economic and public functions, contributing in this way to a redistribution of urban functions connected to the sea and the land and concentrate, the otherwise dispersed urban development, around the bay making it a center.

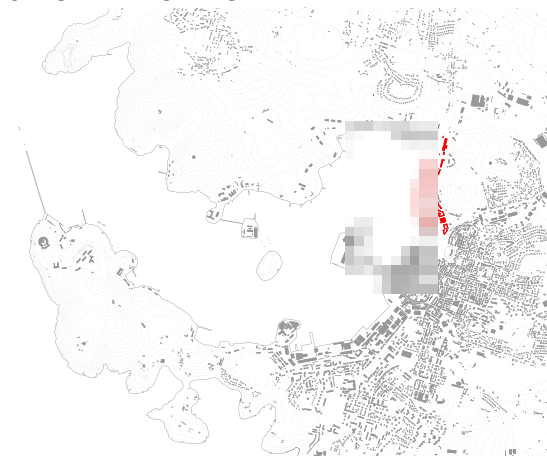
The bay, considered an ideal natural port, is characterized by a complex topography of surrounding hills, indented coastline, rich of small bays and narrow corridors that has separated slowly the city centre from its later expansions.

Basing the analysis on the different visual and structural- morphologic characteristics and the comparative evaluation of different program and uses, as defined, in part, in the town spatial development plan we propose an operative division of the bay in the following areas:

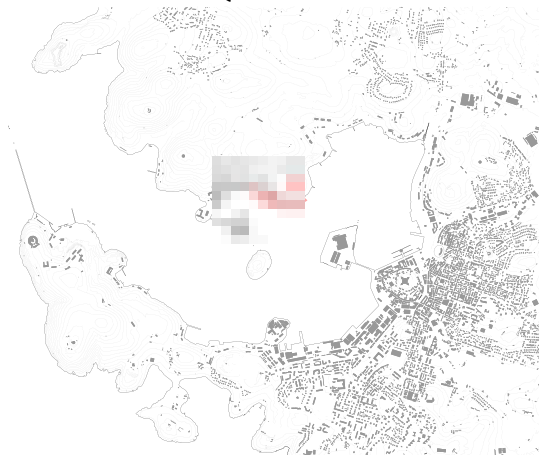
01: CITY CENTER



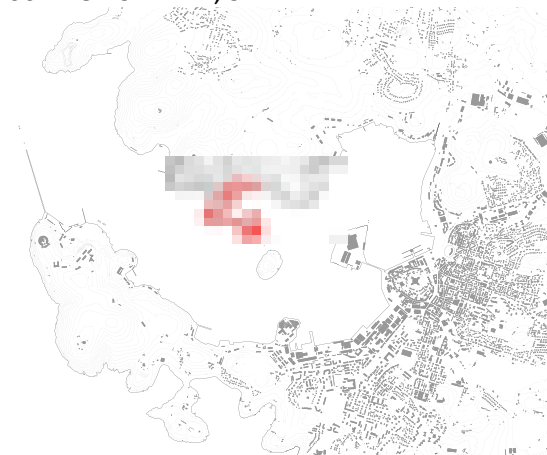
02: OLD RAILSTATION



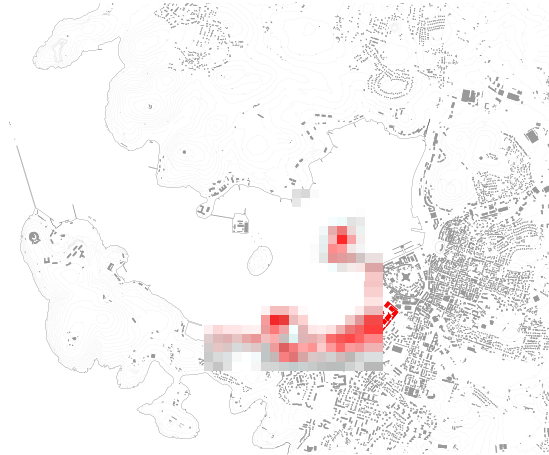
05: MONUMENTI QUARY



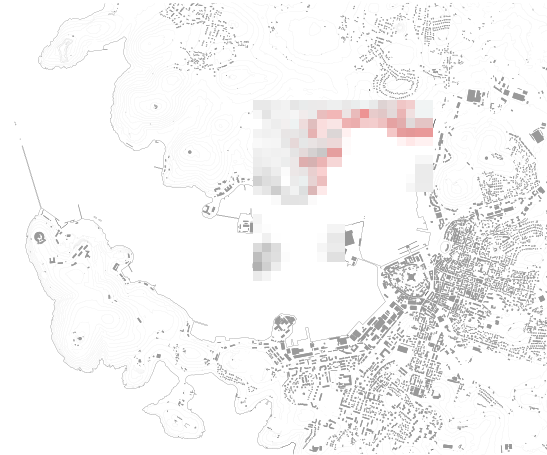
06: MONUMENTI, ST.KATARINA



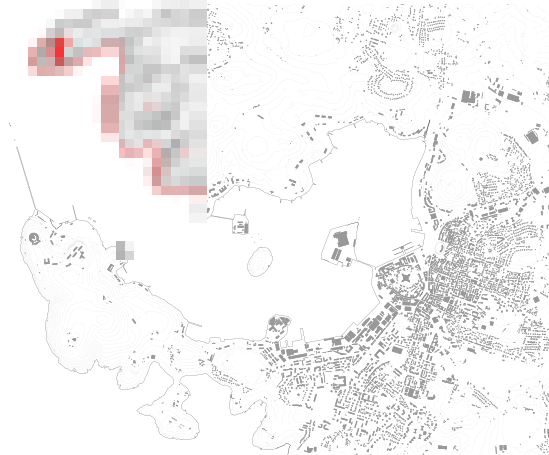
03: INDUSTRIAL ZONE



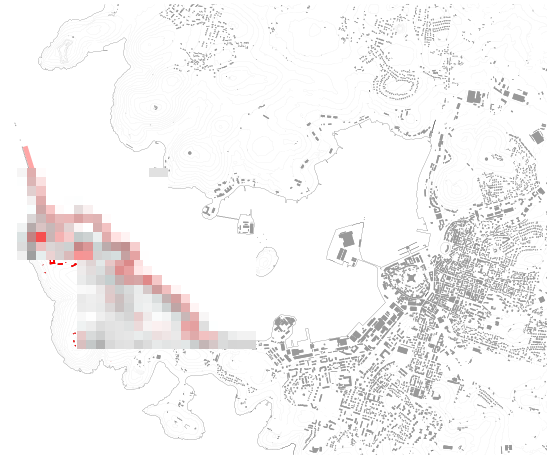
04: VALLELUNGA



07: ZONKI AND STINJAN



08: MUZIL





01: CITY CENTER

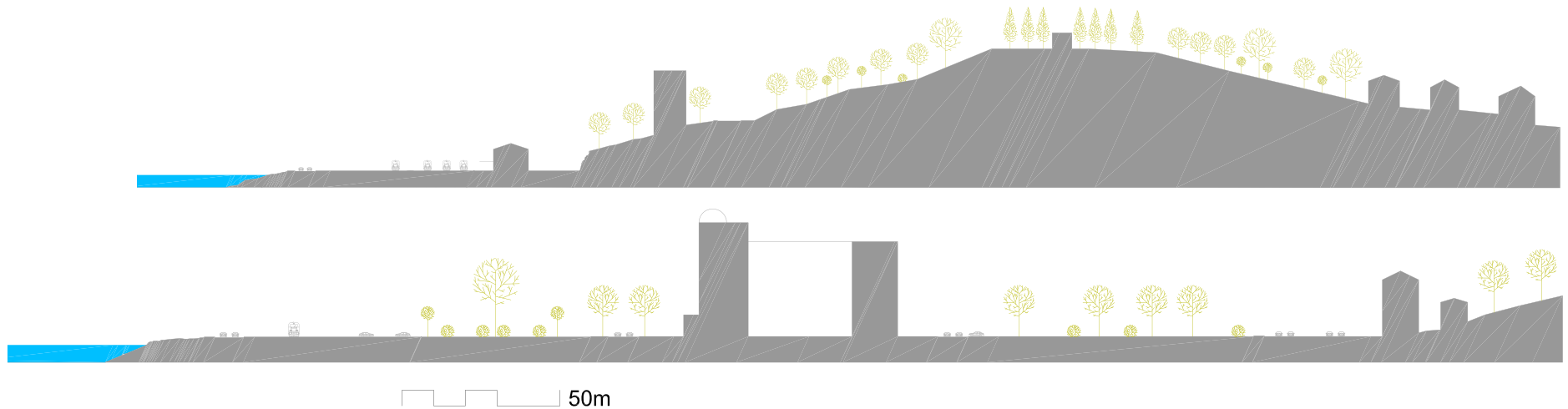
The part of waterfront from the passenger pier to the northern entry in the shipyard is the only part that has always been free for the public. During the Austro Ungaric period here was the commercial port and a large promenade under the Amphitheater, where also a large hotel “Riviera” was erected. During the later years the commercial activity of Pula has lost its importance and the life on the waterfront ceased. With the growth of the city and increase of car usage a busy street has divided the built fabric of the historic center and the water line, and the promenade has become a car parking. Most of the commercial locales situated orienting the sea are closed due to the pedestrian unfriendly area. The pavement of the waterfront has deteriorated through car parking desperately needs renovation. Also, the marina and the large number of fishing boats are denying the view toward the bay of Pula. The waterfront under the old city has to be retought for the benefit of life by the water and opening of the center to its bay.

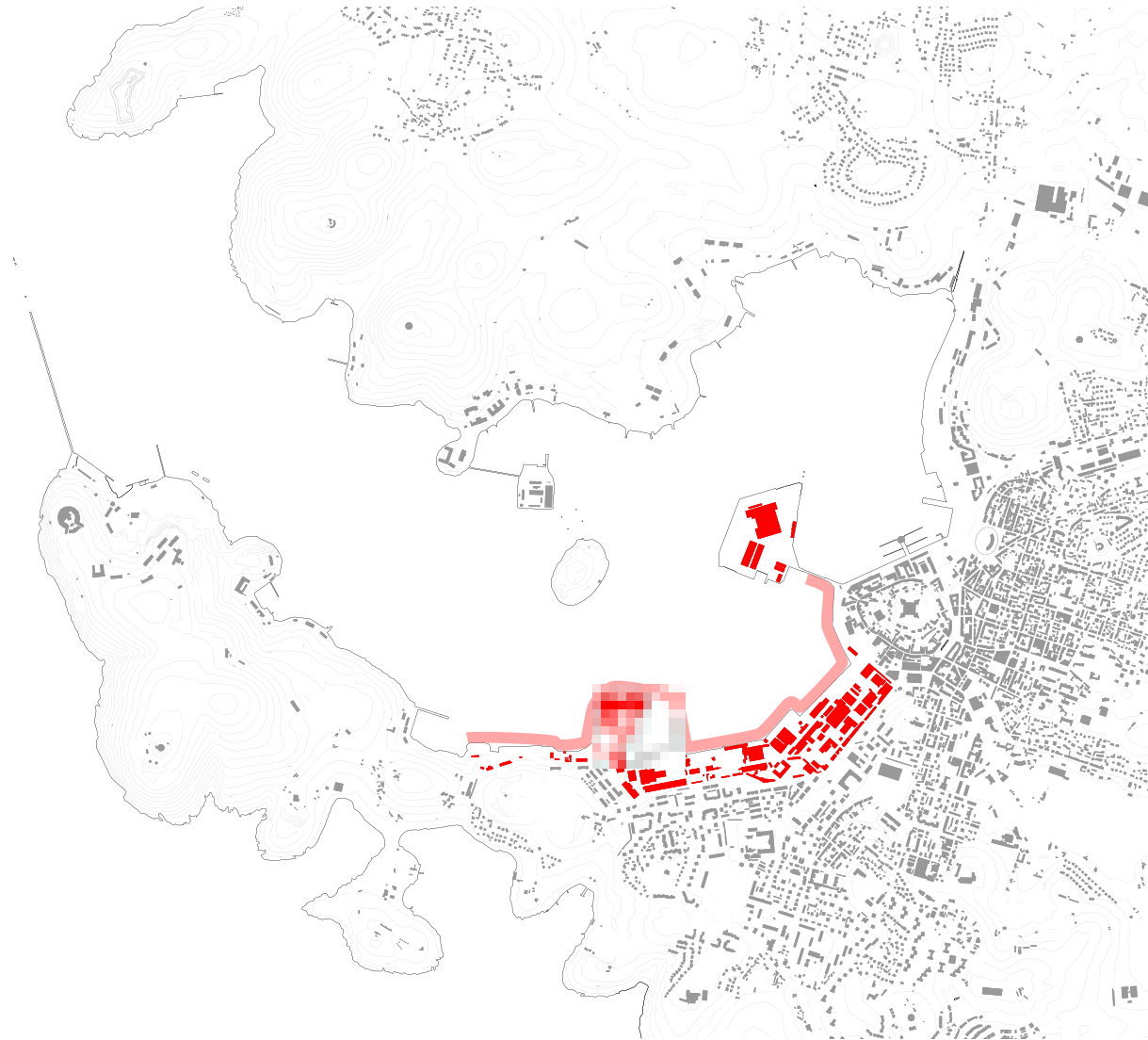




02: OLD RAIL STATION

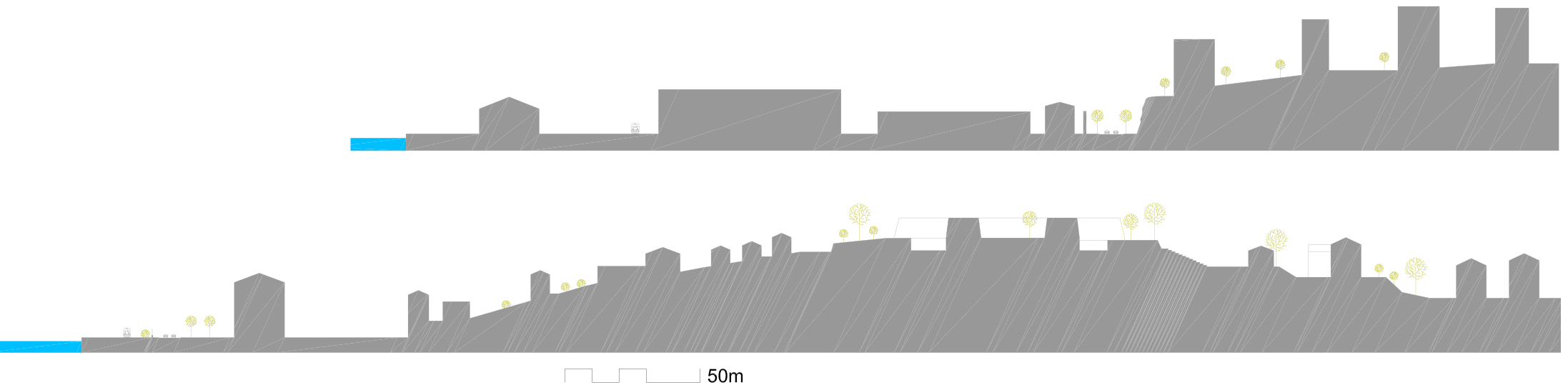
The northern part of the public waterfront, from the passenger pier to the military zone of Valelunga is characterised by the railway station and its services. As the last station of a week communication corridor and having lost the commercial activity in the port the rail services in the area have mostly been abandoned or they are not using their potential. The waterfront is occupied by the road leading from near villages directly into the city center, and illegal dockings. Behind the railway plateau, on the feet of the hill “Monte Giro” and on the hill itself there is a residential qartier in the southern part and a semi abandoned commercial storage area marked by the high concrete building of the ex grain mill and tank. On the hill the main cementery of Pula is situated and surrounded by the woods.

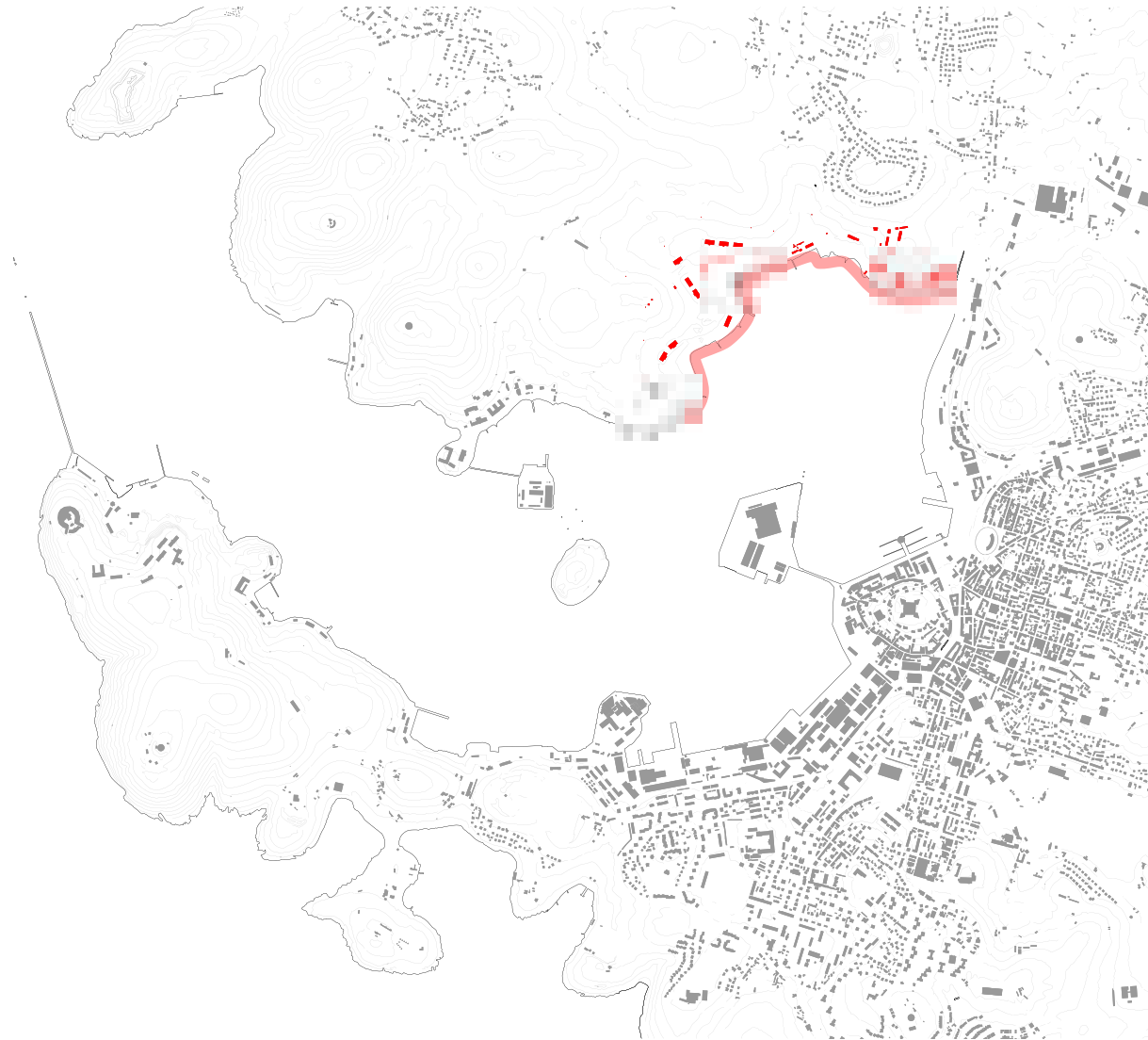




03: INDUSTRIAL ZONE

The industrial zone of Pula is mostly occupied by the shipyard “Uljanik” and it is mainly erected on an embanked area. The shipyard got the name from the island with olive trees on which it has started. The whole enclosed area is around 900 000 square meters large and occupies around 5 km of coast the bay’s coast, designing the industrial skyline of cranes that became distinctive for the city of Pula. Beside the main shipyard there are other two small shipyards and a concrete factory. In the part near the city center the fence is partly transparent, but it becomes a high stone wall clearly dividing the city from the industry on the coast. As the territory for the arsenal was partly cut plane from a hill and surrounded with a high wall, the road that runs behind offers no view on either side. On the hills in proximity to the industry the working quarters have been erected.



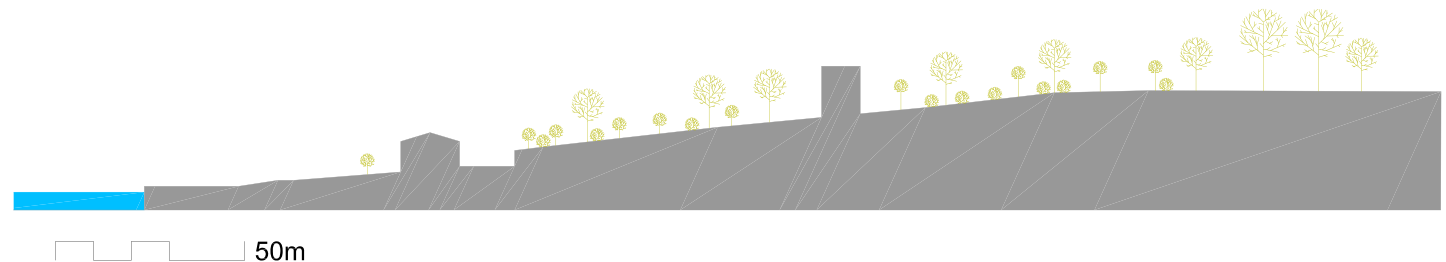


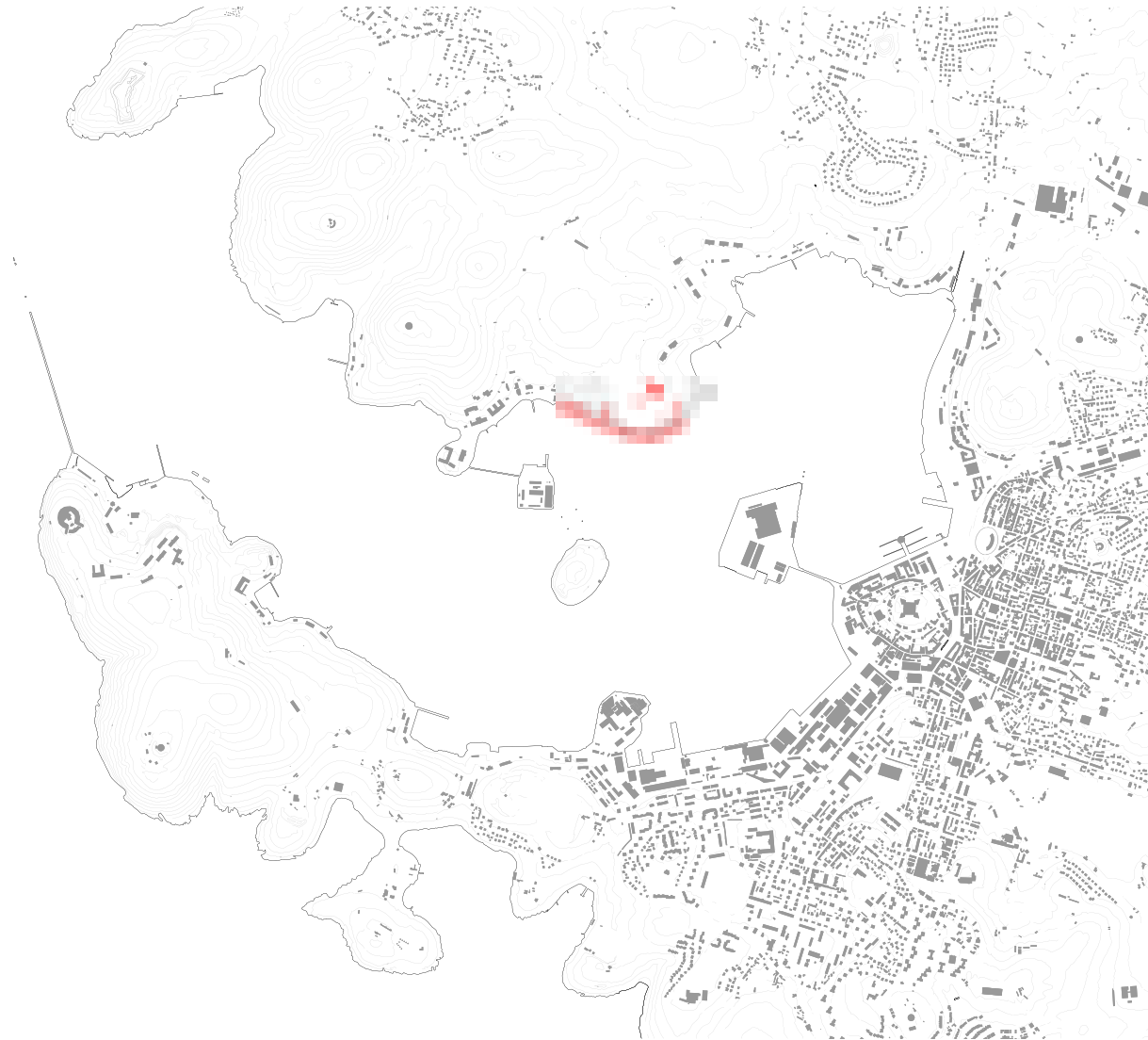
04: VALLELUNGA

The zone that used to be the access to the sea for the upper suburban settlement of Veli Vrh has been entirely used for military purpose from the beginning of the XX century. The enclosed coastal area is dividing the city center and the railway station from the northern coast and settlements, whose development toward the city was denied.

During the Austro Ungaric period a pier for loading and unloading of ammunition was built as the central storage of ammunition for all types of artillery weapons for ships and fortifications, and later bombing aircraft, was founded. Beside some smaller objects on the coast the main warehouses were built in the woods, on an underground level. The zone was officially demilitarized in 2011 and is now submitted to the temporary storage and management of the City of Pula, until permanent solution of the property rights.

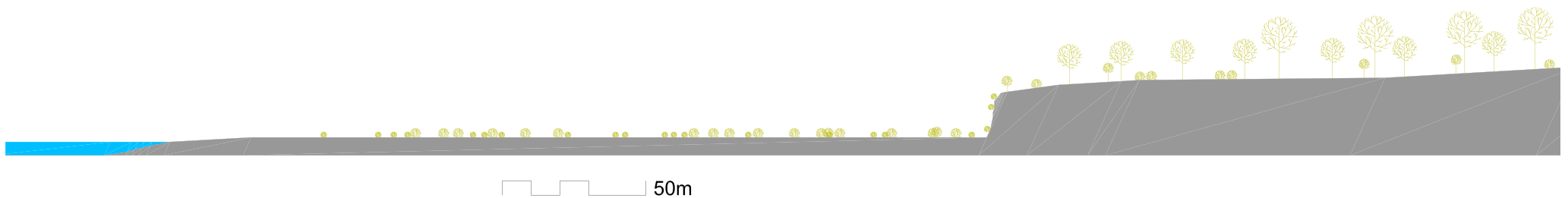
The demilitarization of Vallelunga is an important step toward the city development on the northern coast of the bay. The south orientation of the coast, the view in direction of the city center and its vicinity to it make the area extremely attractive in terms of potentials for the growth of Pula. Naturally the area is characterised by typical mediterranean woods and shallow water suitable for beaches.

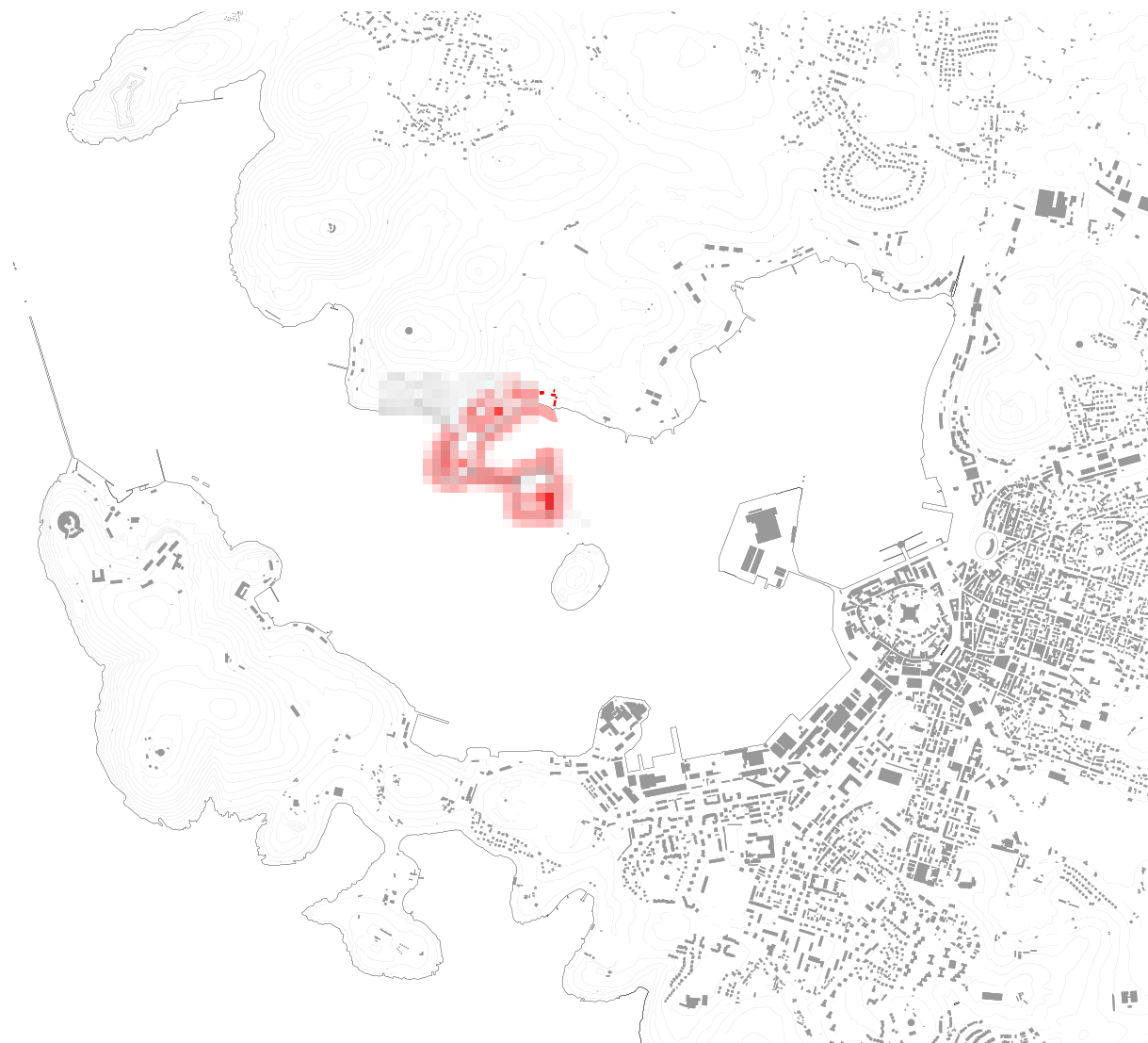




05: QUERY OF MONUMENTI

The quarry instaurated during the Austrian dominance together with the one on Muzil, to generate construction stone for the large construction works in the bay, especially fortresses and the breakwater. As not in use since almost 100 years, the vegetation in form of the typical mediterranean maquis, recovered the plato.





06: MONUMENTI AND ST.KATARINA ISLAND

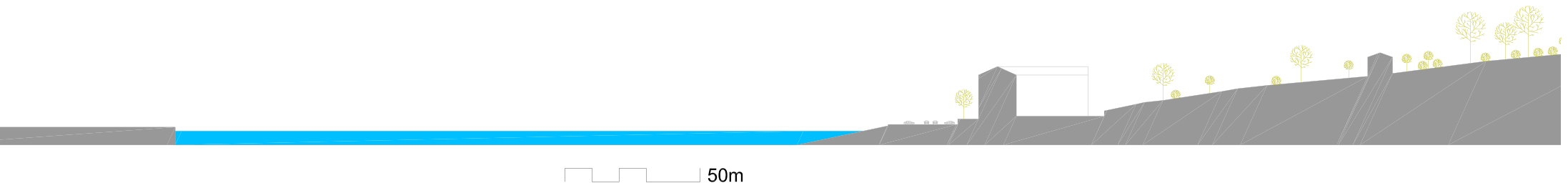
In the bay “Monumenti”, so named for its numerous Roman monuments, during the first years of Austrian dominance, several piers, were constructed. On the small islad of St. Katarina, in the early 20th century, the navy constructed hidroplane Naval Station as a new tool for warfare at sea. On the island was firstbuilt a trial, then a permanent hidroplane station and then with hangars it offically becomes the Aeronautics arsenal.

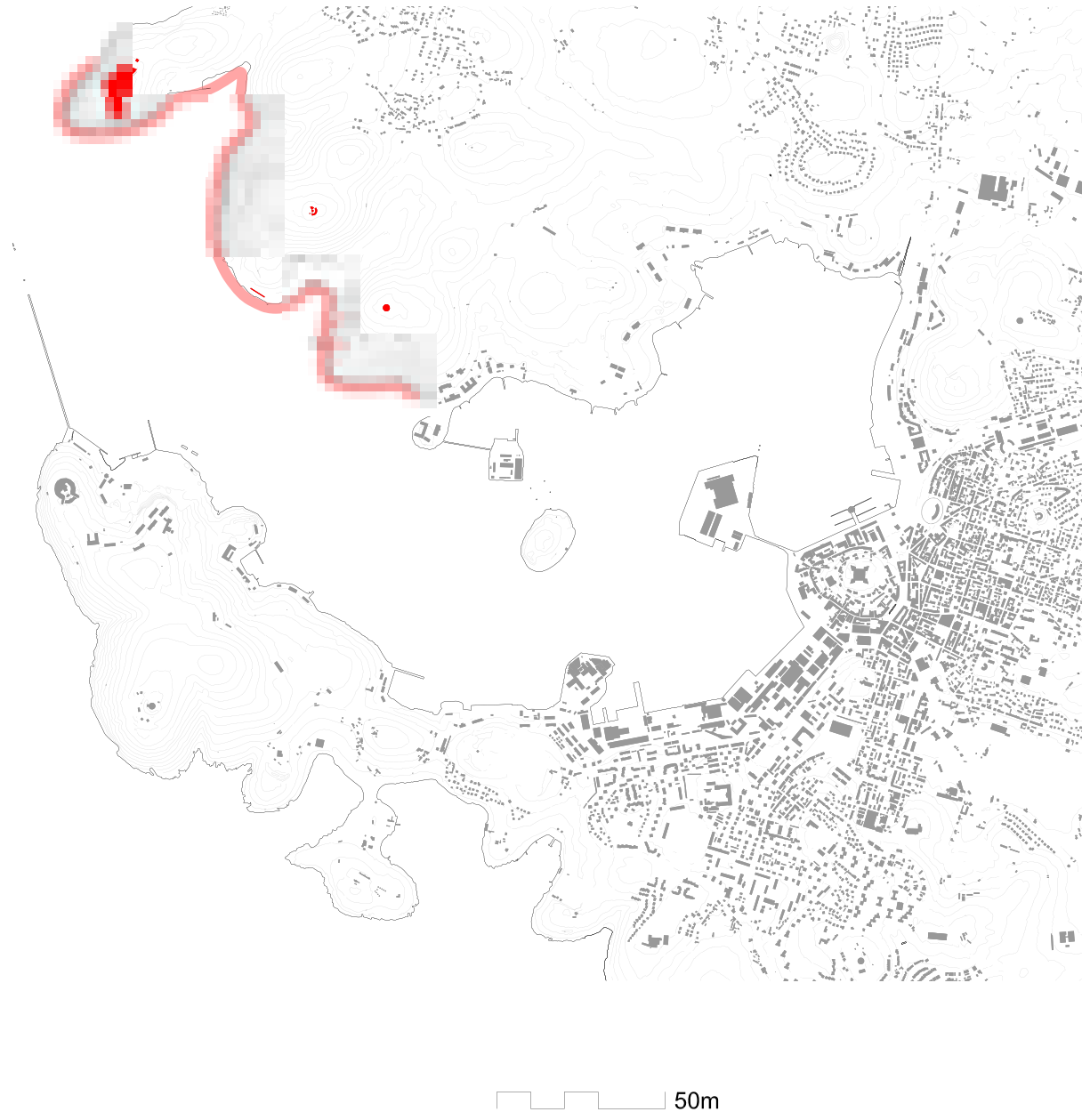
In the year in 1917 and 1918 on “Monumenti” there are naval Aviation command, offices, flight staff, the departments of administration, construction, maintenance and Aircraft.

Under the rule of Italy St. Katarina is connected to the mainland by a concrete bridge to the peninsula “Monumenti”, where Italian submarines were bound.

The whole area were abandoned in the late '90s and devastated during the years.

Informally, some spontan reuse occured in the area as on the island of St. Katarina medium fishing boats started tu dock, and some music festivals started to take place between the abandoned buildings of Monumenti.

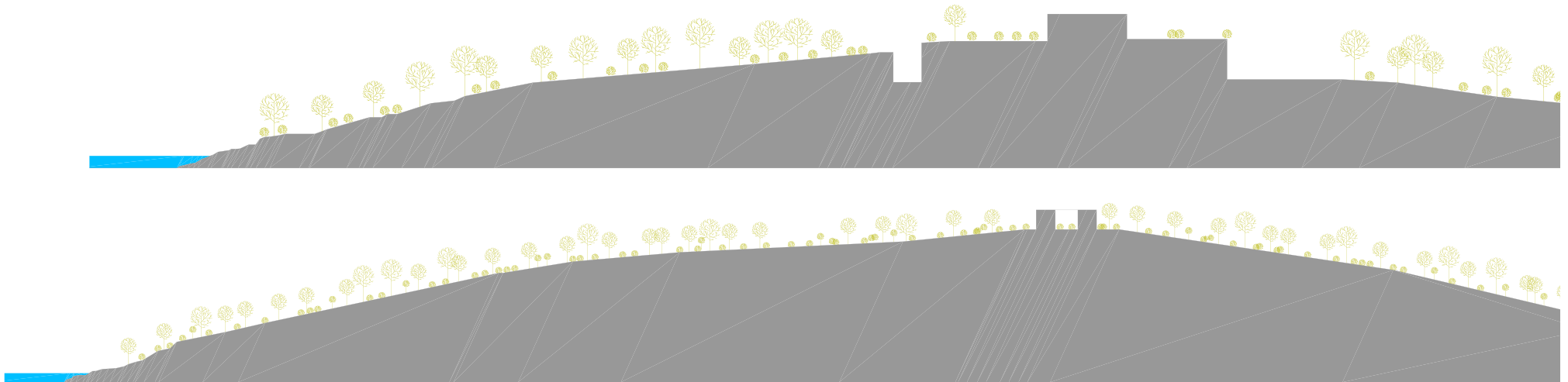


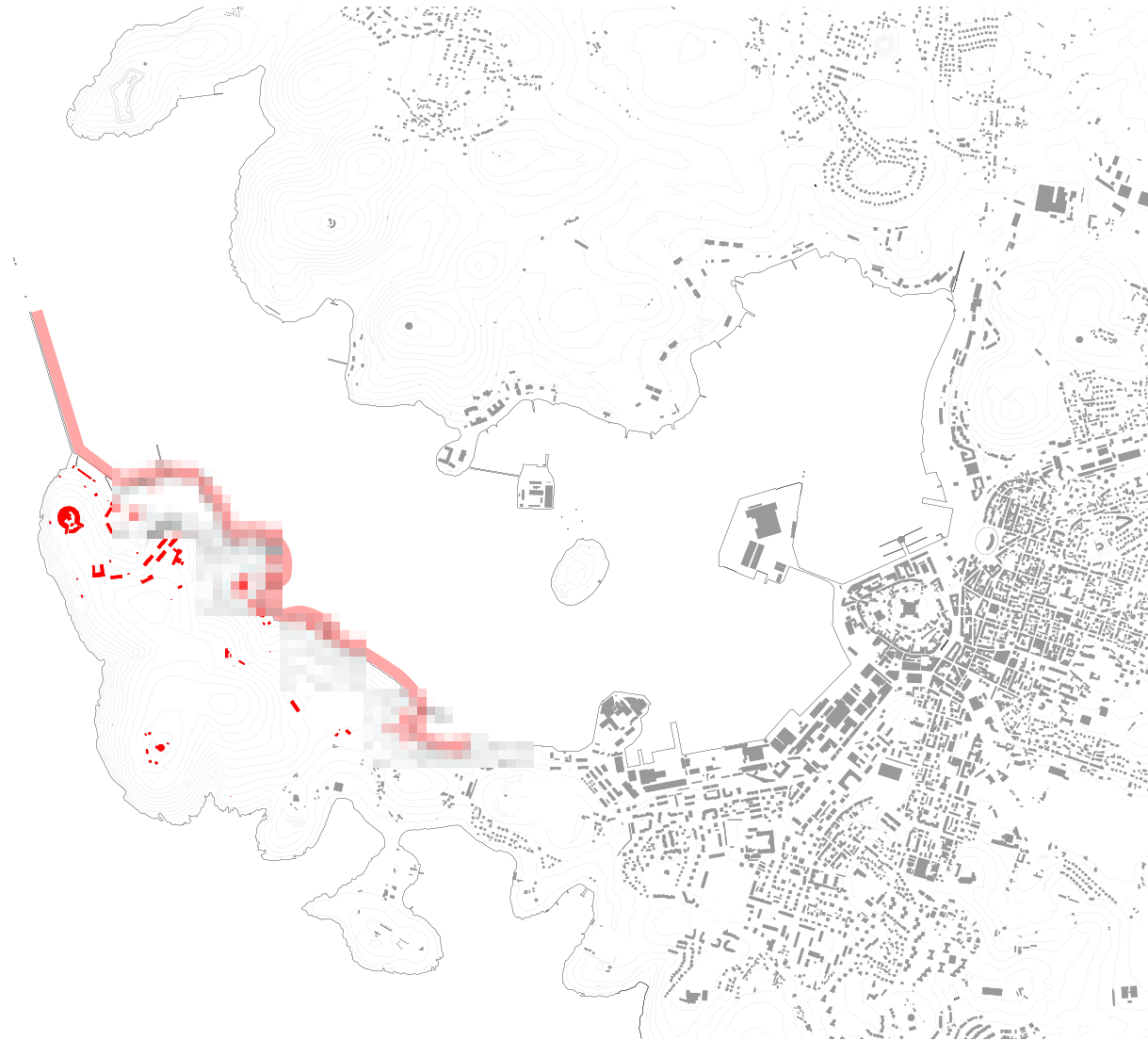


07: ZONKI AND STINJAN

The large forest area that encloses the on the southern side, is together with the Muzil an important natural resource for the territory of Pula. The Austrian navy has built on the high areas three fortresses, from which two are abandoned, and one, Punta Christo, cleaned and managed by a group of local enthusiasts is an example of temporary use for a military complex. Started with small summer music events and festivals is today hosting some large festivals with more than 30 000 visitors at once. All of them are very attractive as they present a magnificent view of the bay, of the city, the Briuni Islands and of the fields surrounding the city. Besides of those fortresses and some small isolated objects the area is completely covered with dense holm oak forests that stretches

themselves to the suburban settlement of Stinjan, and pine trees in proximity of the coast. In the northern parts, in vicinity to the residential areas and far from the coast, some farming and agriculture is practiced in the fertile lands.





08: MUZIL

The around 180ha large peninsula that is enclosing the bay by beeing it's complete souther coast has been a military area for almost 200 years. The peninsula becomes a naval strategic point after the Fall of Napoleon in 1813 with the return Austrian authorities on the eastern coast of the Adriatic. Untill than the area was used for pasture purpose for the horses from the town, as on the plain area on top of Muzil there are exel-lent pastures.

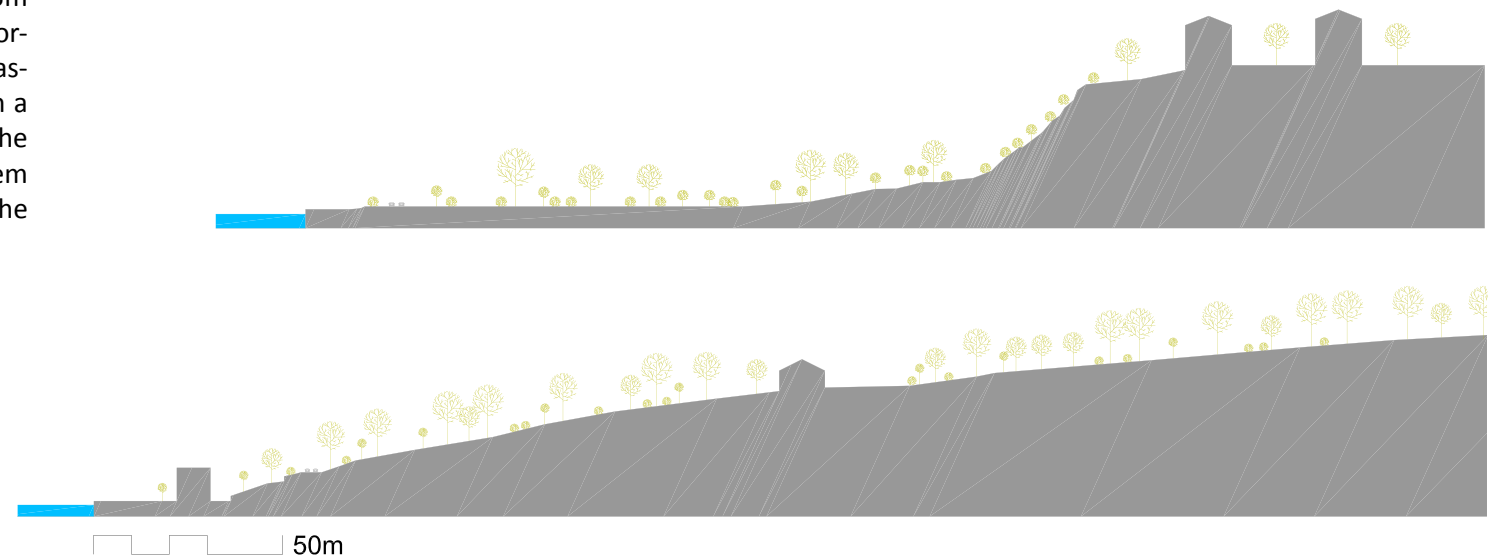
By moving line of defense at the entrance to the Pula Bay in 1820 Muzil, as the most readable and the highest Point in the bay, gets the strategic importance and the defensive structures. Fort Marie Luis was the first of them, and later, with its final form, it became the largest circular fortress in the Adriatic Sea, and beyond. Also, a large number of smaller fortresses were erected, the 1,225m long breakwater, together with underground storages, buildings and workshops were built to assure even more security to the bay. More than a century later, under the rule of Yugoslavia at the end of WWII, by digging the underground system of artillery batteries on the south side below the

costal artillery battery Muzil became impregnable also by the open sea.

Beside building the infrastructure, the 200 years of military use has preserved the natural resources of the area.

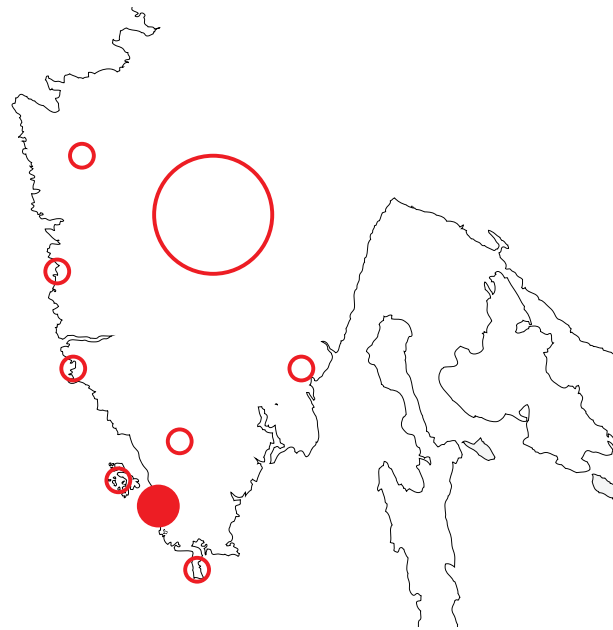
The objects on Muzil are surrounded by dense holm oak and pine forests and almost impenetrable underbrush that extends on the slopes of the western side of the peninsula.

The forests of the Territory, together with the Stinjan forests of on the other side of the bay present a very valuable urban Green Shield assuring on the one side space for recreation and development of active and rural tourism, as well as conservation of biodiversity in therms of species, ecosystems and landscapes.

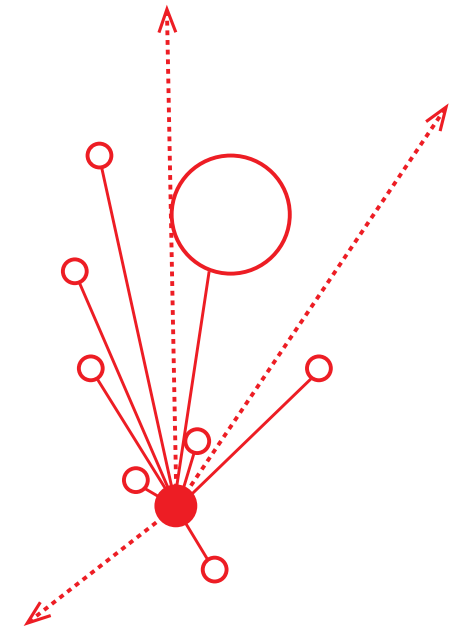


DEVELOPMENT PLAN

AIMS AND OBJECTIVES



















MAIN REGIONAL CENTERS, COUNTRYSIDE



— INFRASTRUCTURAL AND PROGRAMMATIC
..... INFRASTRUCTURAL

In terms of functional programs in the new masterplan, it is important to take in consideration the role of Pula as the regional financial, educational and infrastructural center. The new activities in the bay have to consider the needs and potentials of the brighter area, instead to just maximize fast profit with merely touristic content. Especially, new forms of activities have to promote, educate and valorize the countryside, to avoid further litoralization and monocultural economy based on tourism.

To function as a network of various poles the region has to invest into a strong infrastructural center. Air, sea and land transport has to be unified in one central hub to assure fast and effective exchange of people and better connections to the rest of Europe.

-  LIVING
-  HOTEL
-  OFFICE
-  STORAGE/PRODUCTION
-  EDUCATION
-  SHOPING, MARKET
-  GASTRONOMY
-  PARK
-  SPORT
-  GARDEN
-  MARINA
-  CULTURE
-  MONUMENTS
-  BEACH
-  MARICULTURE
-  FARMING

After analyzing the problematics and the potentials of the city, and the role it could assume in the region, the guidelines for the creation of a master-plan for development inside the bay can be clearly drawn. They present the cornerstone for creating a series of strategic projects on the coasts of the bay to expand the city onto areas it had never had the possibility to expand and open itself to the bay by making it a social, economical and natural resource.

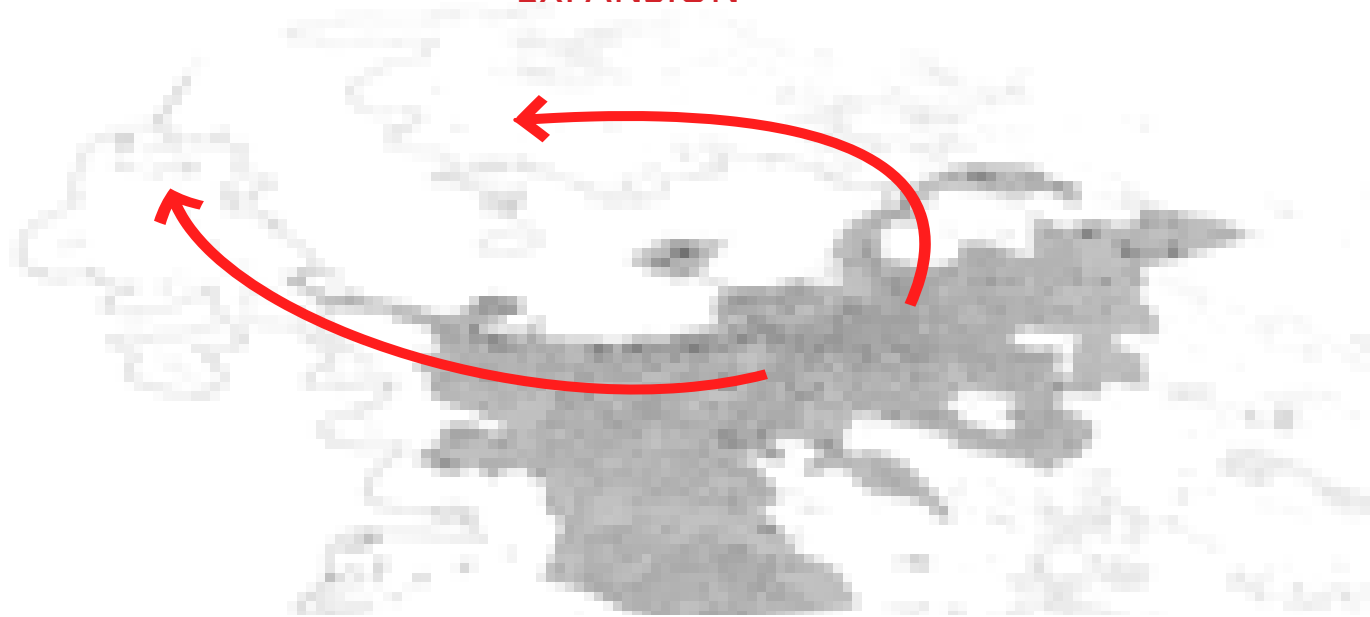
(1)Not to make the mistake of a fast urbanization to maximize the profit through real-estate and tourism, the strategy is to design a patchwork of mixed functions, a net of nucleus that would become functional units in the dynamic development of the city. Various functions like tourism, production, leisure, education and living have to coexist in the bay to complement each other, to improve diversity of life and landscape.

(2-3)To maximally preserve the natural environment, that has been preserved in the past due to the presence of the army, the aim is to start from the military bases, as they already present some infrastructure. Those objects need to be subjected to transformations of the built substance to satisfy the needs of the contemporary city and to gradually give life to the enclosed areas. Similar actions already happened in the examples of some areas

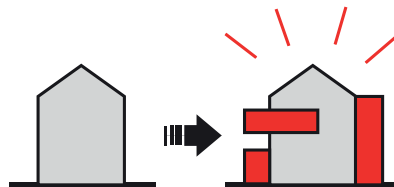
being reused, mostly by members of independent cultural movements, to host manifestations and various festivals. In this way large areas of green are used for farming, leisure and forestry. (4)Improvements of the infrastructure in terms of public transport, rail and maritime transport functionality and pedestrian routes creation, have to follow the transformations in order to assure a natural and functional growth. It is extremely important to make the new areas easily accessible from the city, but also from outside the city.

Also, to create a continuous trama of different events on the water, the existing waterfront of the city has to be retought as it becomes the focal point in the new bay.

EXPANSION



MIX USES



REUSE

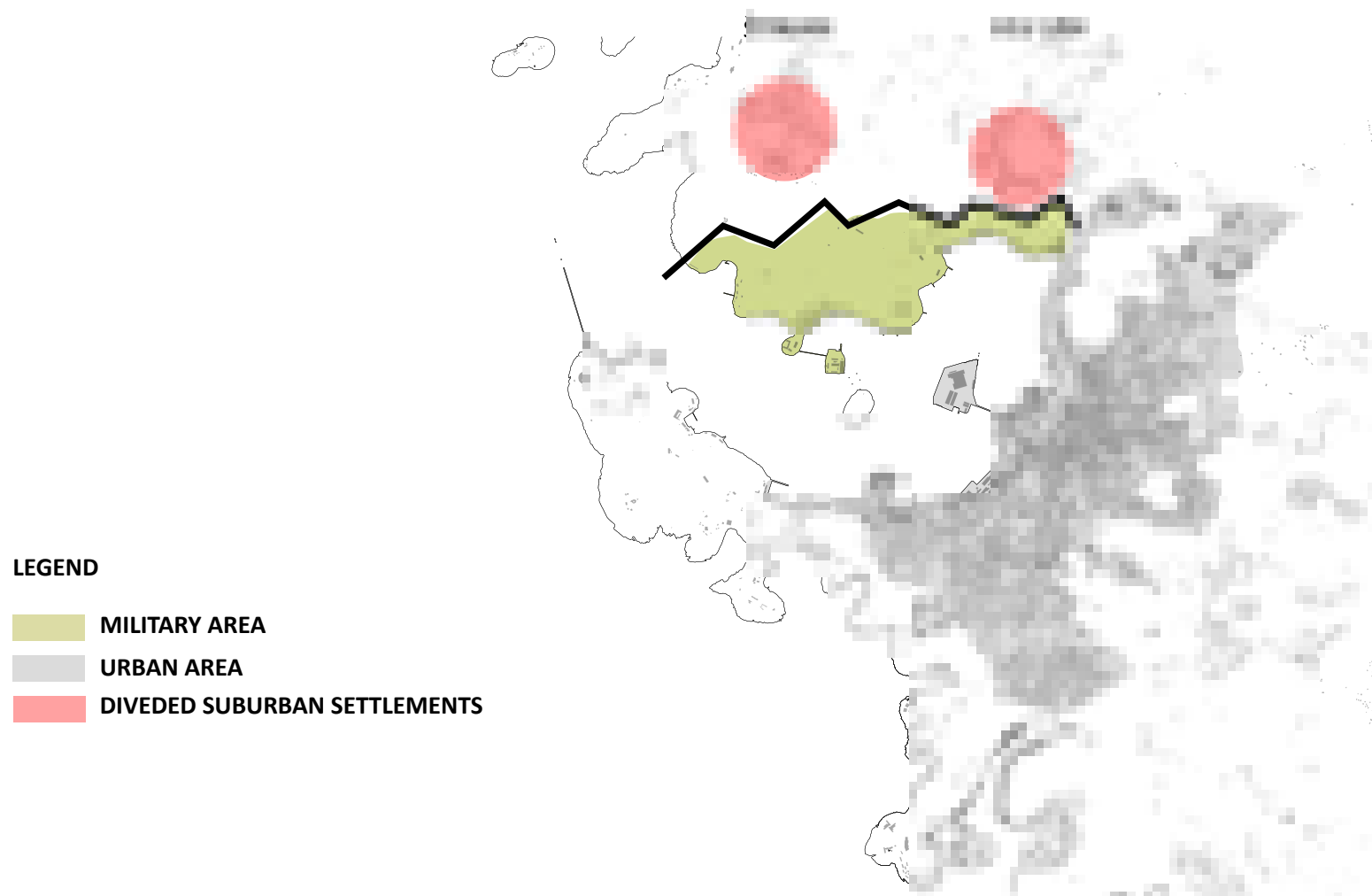


PRESERVE

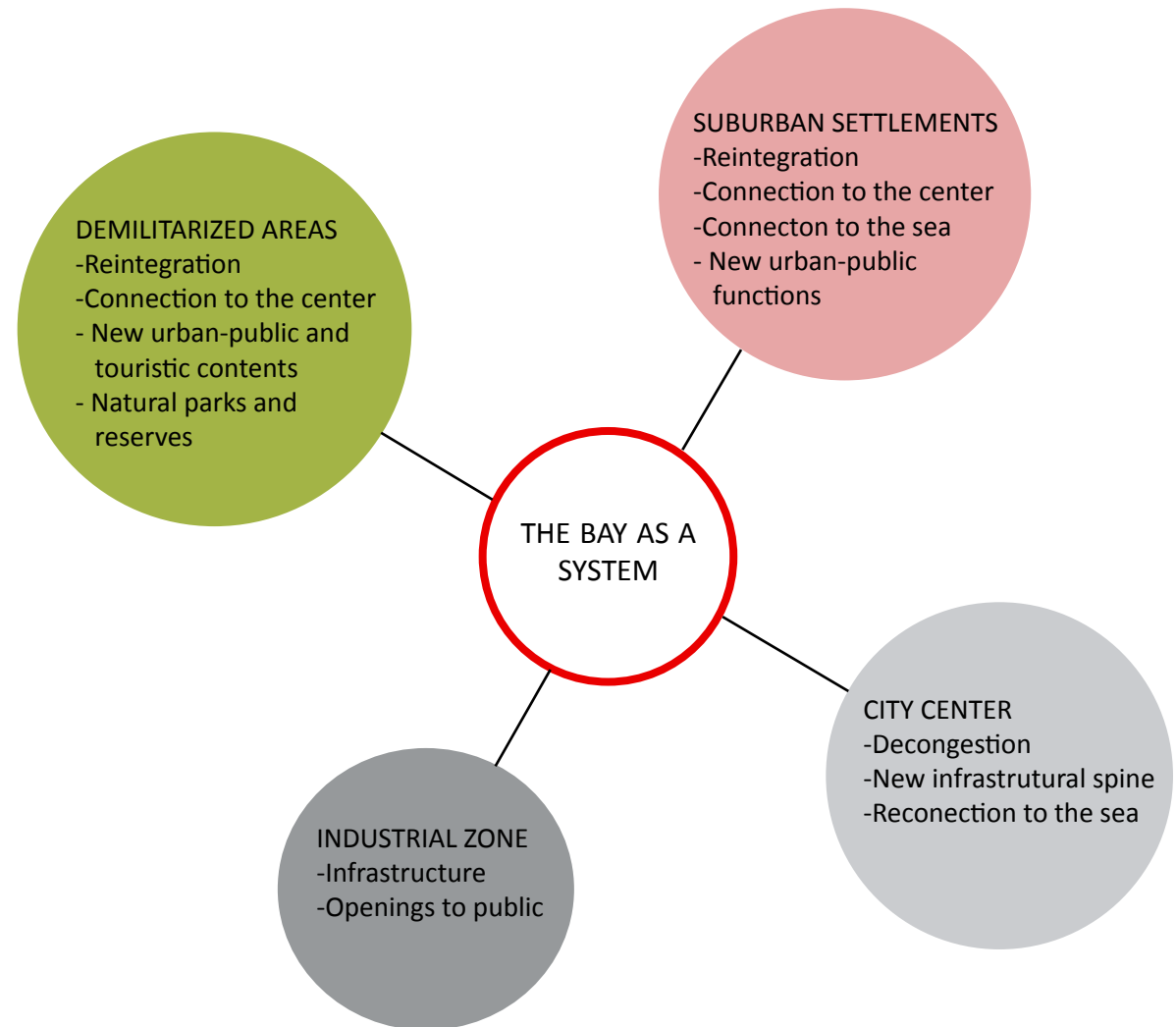


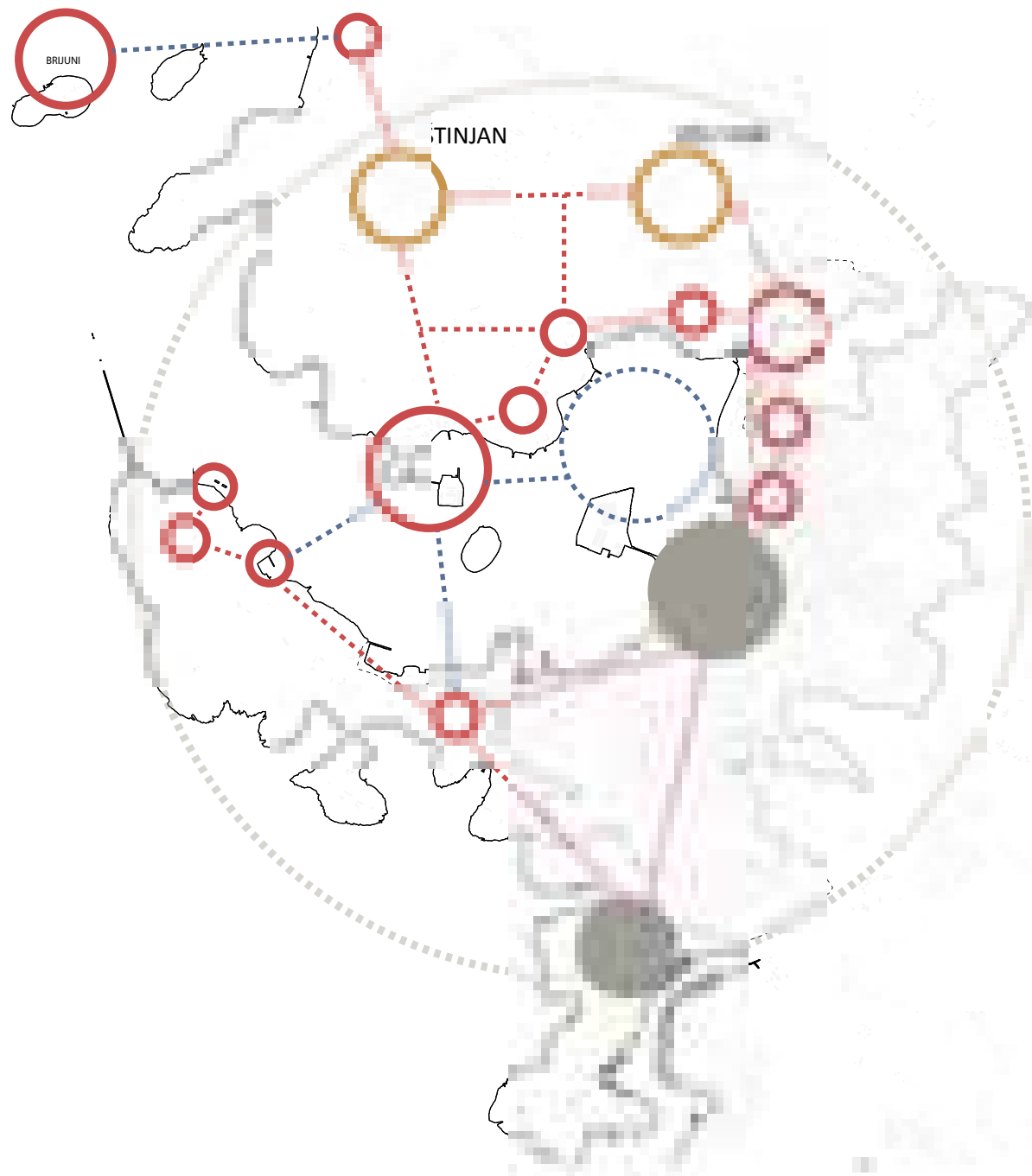
CONNECT

PRESENT SITUATION



FUTURE GOALS





NETWORK OF CENTRES

legend:



bay system



historical centre



new subcentres



existing subcentres



sea-program

The historical centre of Pula, developed and expanded gradually and radially eastwards, trying to avoid the coast, to the north, and the hilly landscape to the south. These areas were eventually also included in the settlement but this occurred in times of rapid and energetic urban development, for instance during the Austrian occupation or the Yugoslav reconstruction after the II world war.

The expansion to east was redirected towards south in the 1960s, with the intention to provide new access to the coastline in Veruda, a modernist neighbourhood organised around a linear avenue. This planning decision produced a partially completed centre separated from the historical centre and the bay.

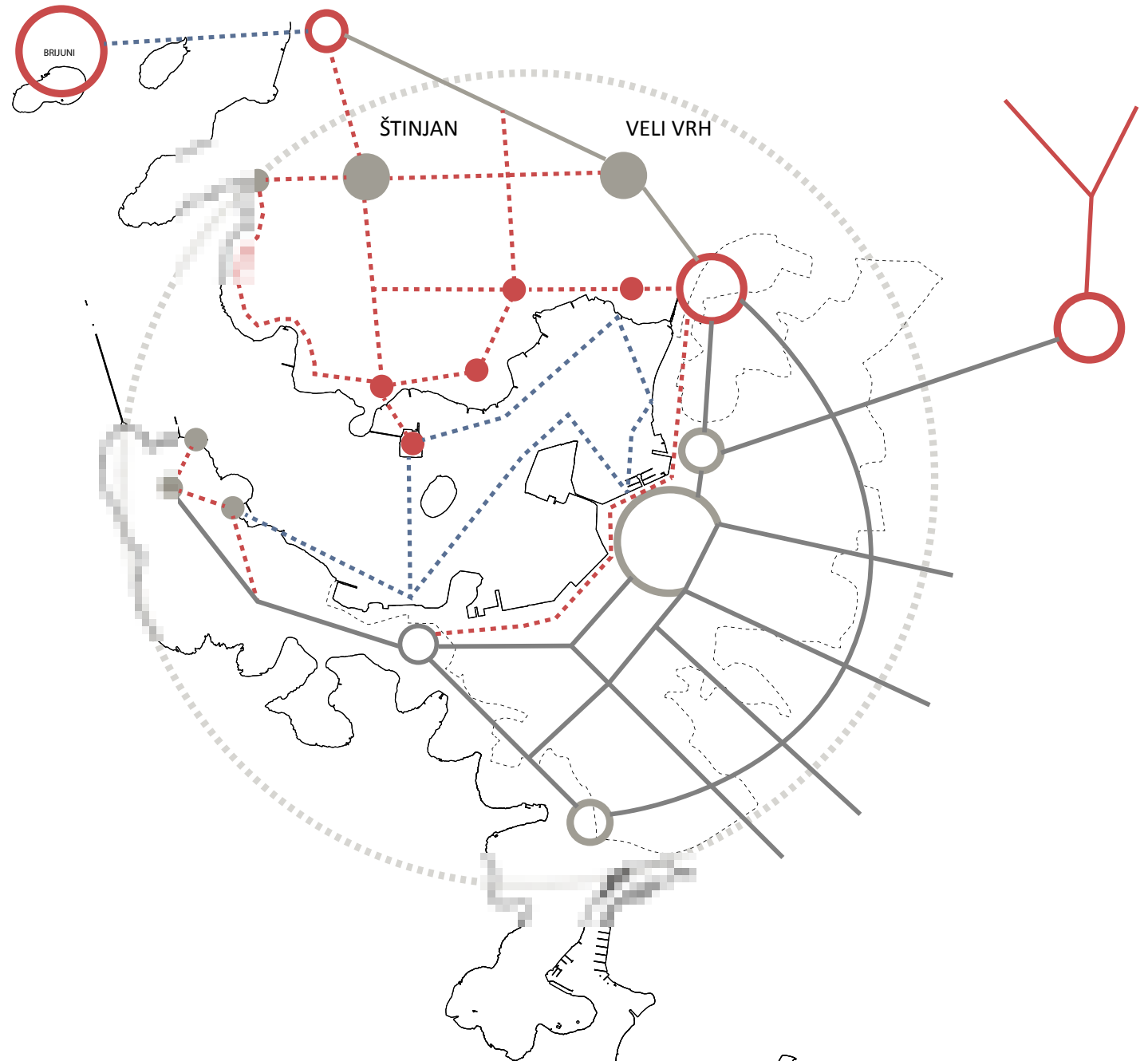
The positioning of a city's centre in a complex topographical contest of the bay constituted even for the romans an awkward task, in fact the intersection between the cardus and decumans, usually identified the centre and the main public life square a city, in this case lies on water, at the edges of the bay.

Given the intention to plan the bay as a whole, and stop the continuous sprawl to the east, a model of growth with a network of centres has been proposed.

Repositioning the main interest of Pula next to the sea and in the middle of the bay, like the romans did, we are able to gather and connect around it different poles and each with a more or less specialized character: traffic, fishing, recreation, education, housing, education, tourism.

The polycentric model of development permits to abandon a linear model of urbanisation concentrated usually on the coast and to leave green parts of intact nature between the different poles, additionally the possibility of different paced developments and therefore the phasing of the plan is also increased since every part can evolve separately.

This solution enables more possible connections between the different poles themselves and the surrounding settlements offering an idea of city made by multiple centres and occupying its hills, islands, coast and sea.



CONCEPT OF NEW TRAFFIC SYSTEM

legend:



highway



existing traffic



Entrance to the city



new traffic axis



new sea traffic

The most significant elements in the proposal of the traffic system are the two transport “entrances” to the city:

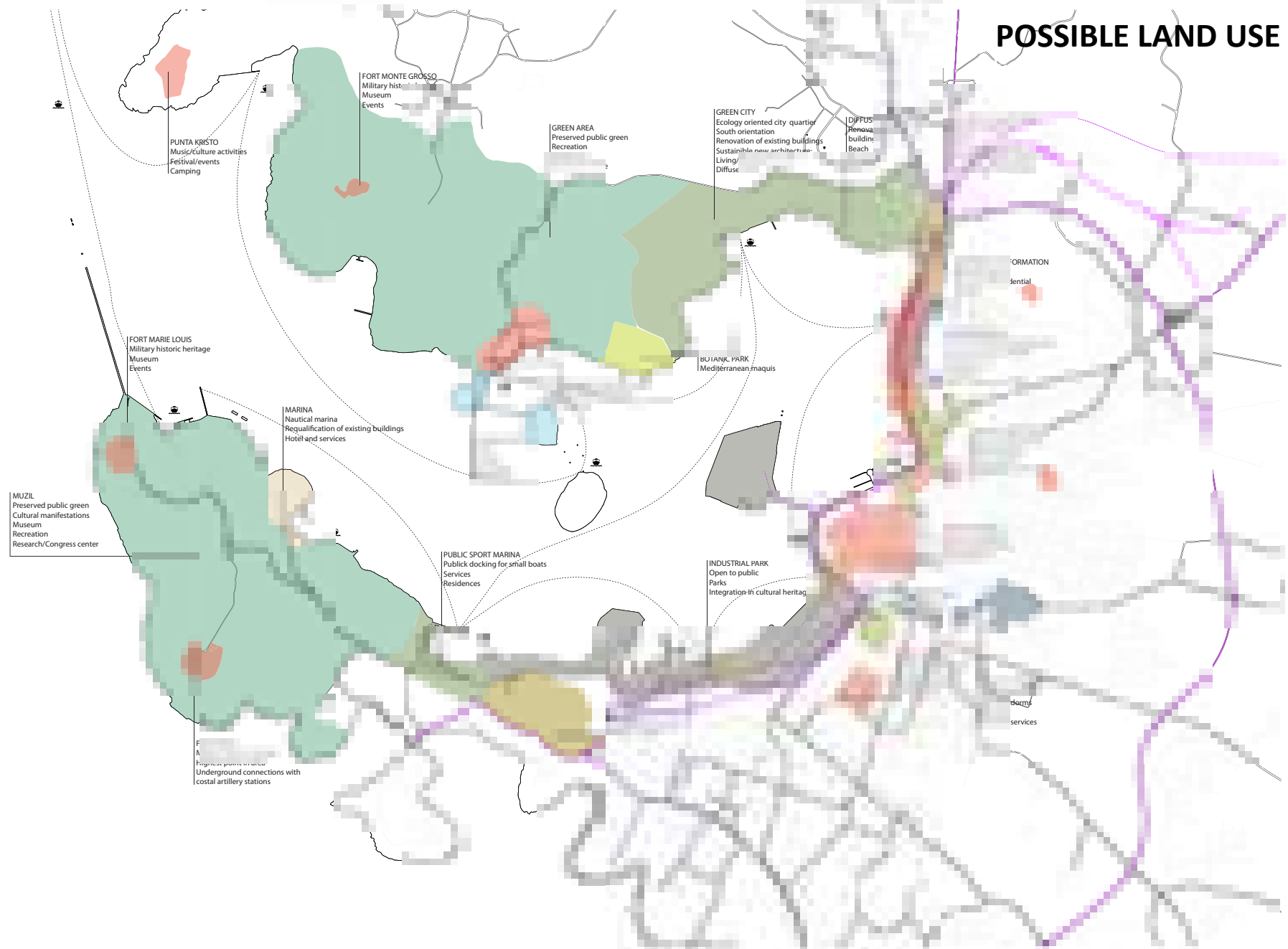
The first one is situated to the north, in the proximity of the Veli Vrh crossroads, it will permit a link to the existing city roads, that run parallel to the coast towards the historic centre and most importantly it will make possible to extend the already present city roundabout to the settlement of Stinjan and in this way connect completely the territory with one single road. From this new roundabout road other smaller traffic lines will run, where necessary, to the poles located on the coastline. This traffic solution interconnects all the different programmes on the coast, in the northern part of the bay, to the main road Veli Vrh - Stinjan, freeing the coastline from car traffic and making possible its usage as a pedestrian zone.

The second “entrance” is located in the east and it is connected to the international airport and the “Istrian Y”, a highway that will link Pula to Trieste and to Rijeka. This will produce a decrease of pressure on the northern entrance to the city and the town’s infrastructure in that part of the bay, additionally this intervention will connect Pula and in particular the planned transport hub, where an international ferry terminal and railway station are going to have place, to an outside road

leading directly to a highway and the international airport.

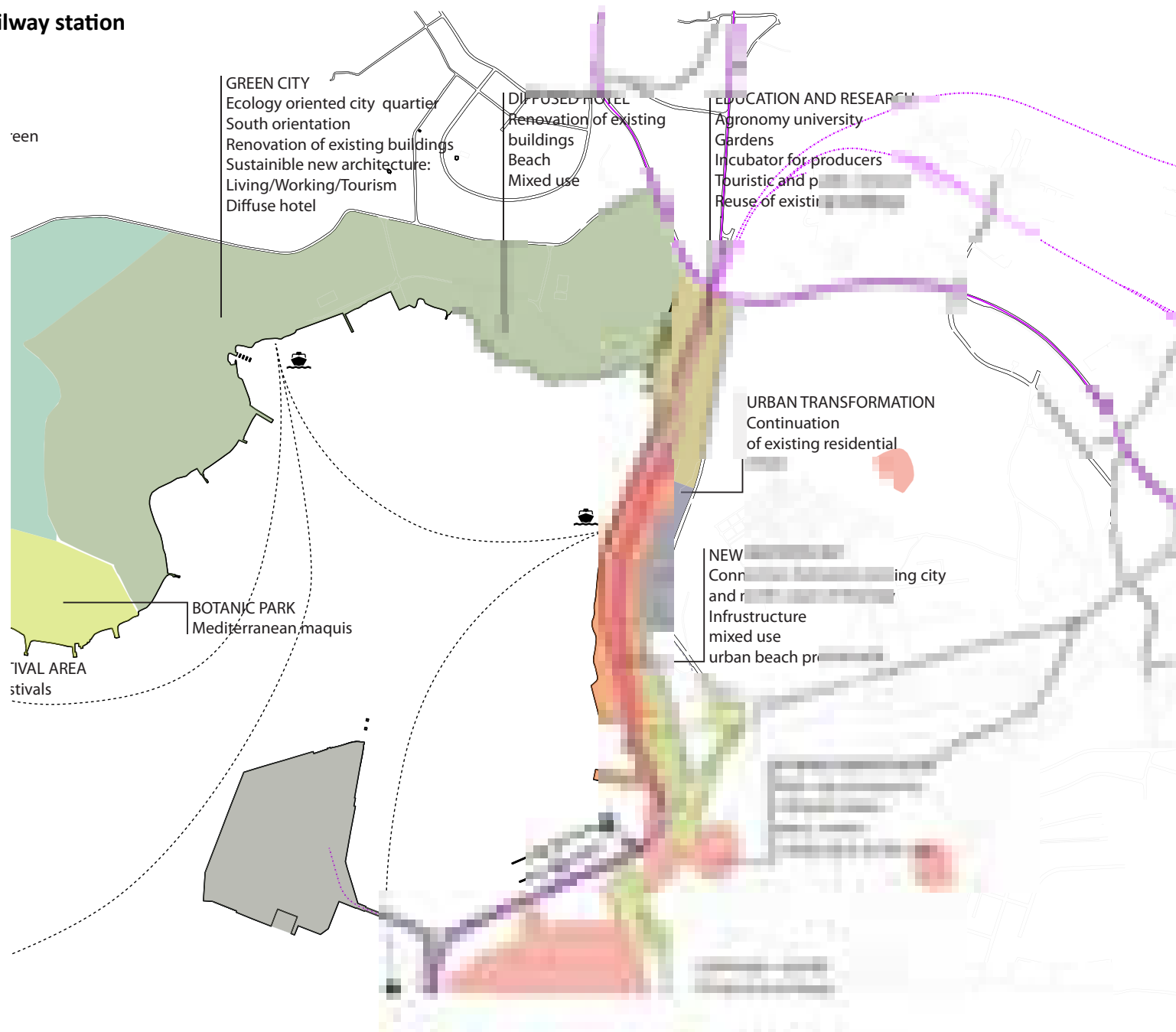
It will be possible to integrate the road traffic with the traffic on sea, which offers a more direct and rapid connection between the different poles. If the amount of sea traffic will increase, as a result of the planned Marina, sports marina, Fish and grocery markets and other functions in the different centres along the bay, it’s not difficult to imagine a public sea transport between the main points on the coastline. The infrastructural base for this idea could be realized using mostly existing piers.

Apart from the road and sea traffic, a continuous pedestrian path will be realized along the whole bay of Pula interconnecting areas of different urban intensities and landscape characters and permitting the citizens and tourists alike to enjoy and to finally access the diversity of the whole bay.



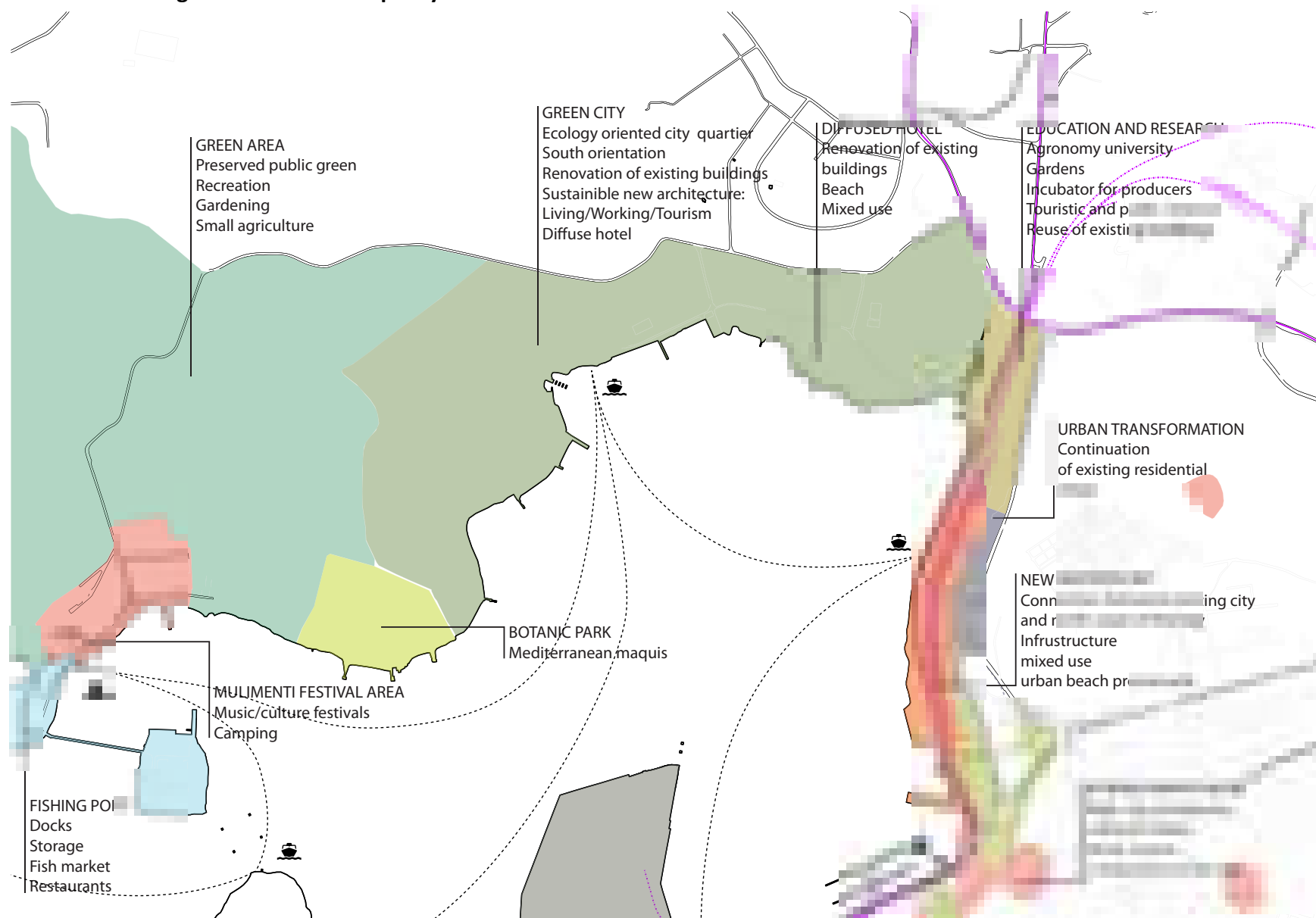


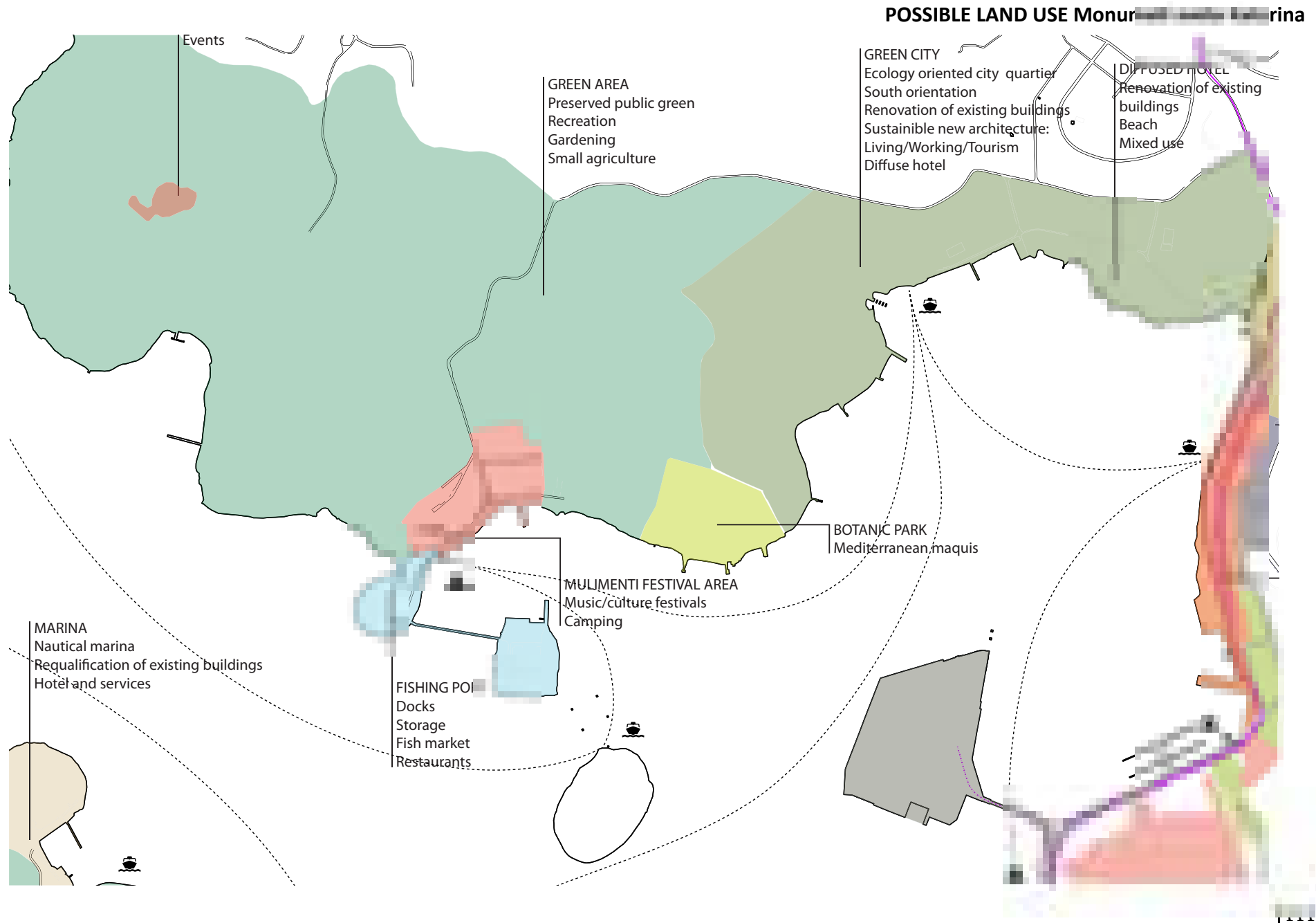
POSSIBLE LAND USE old railway station



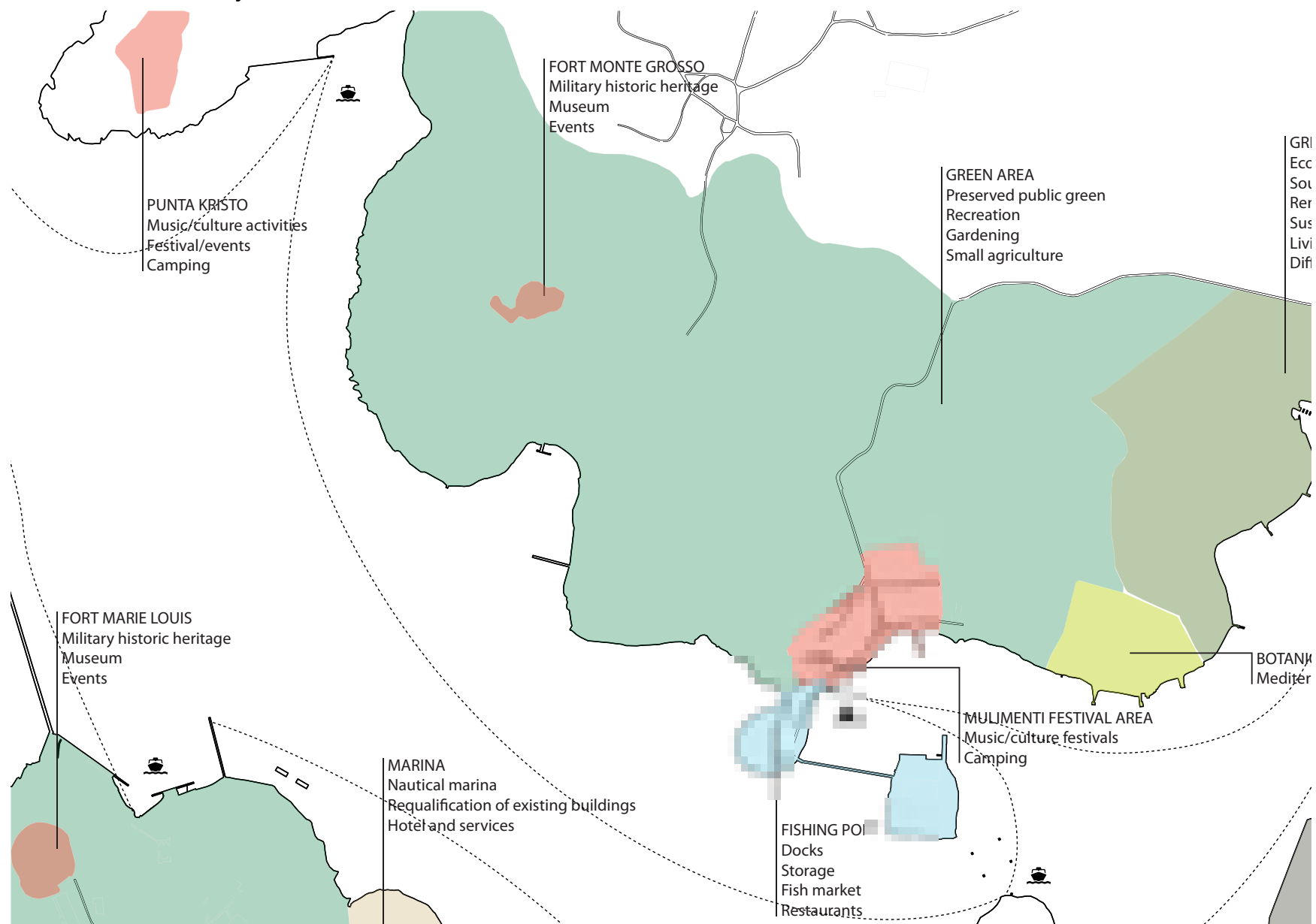


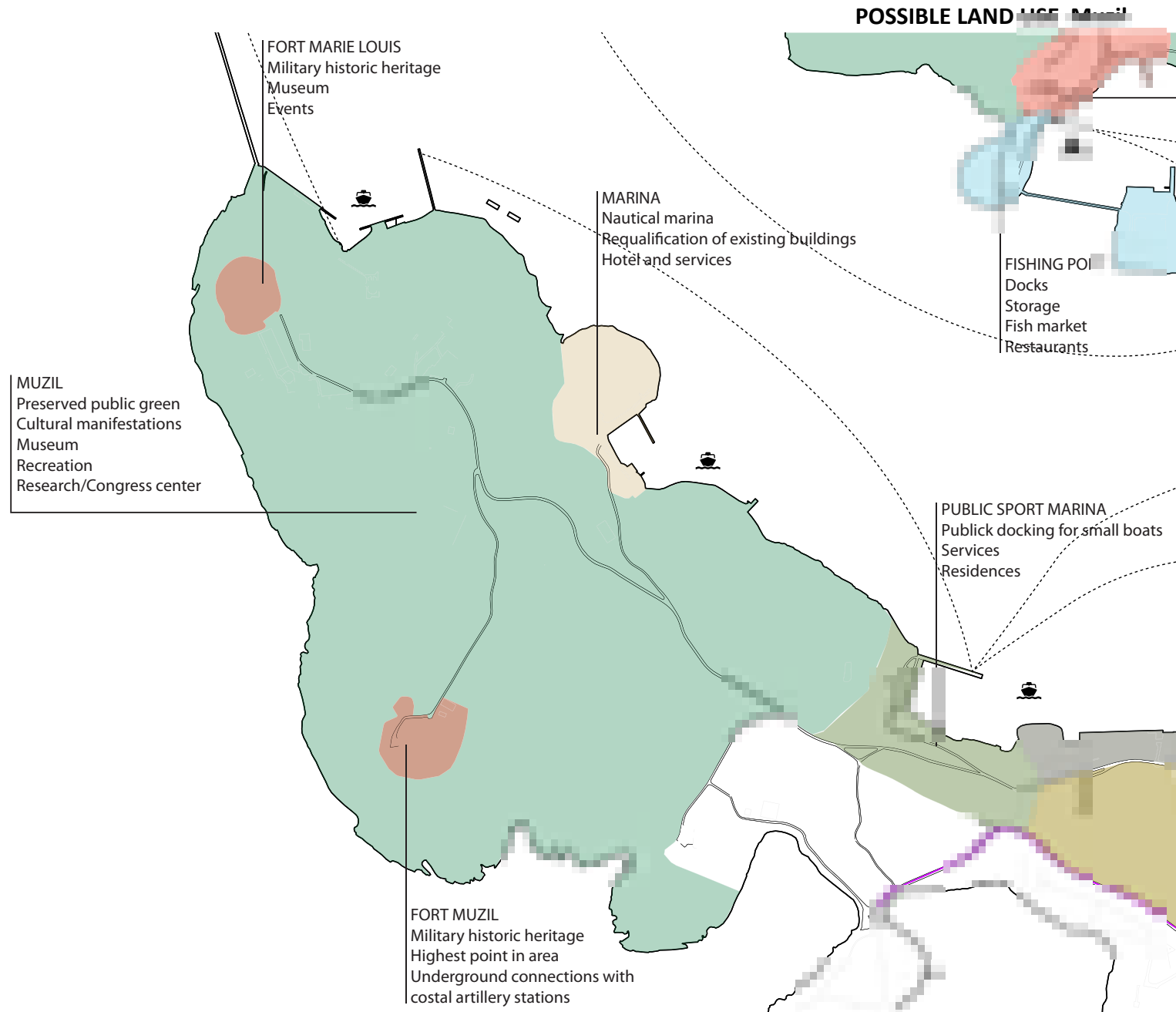
POSSIBLE LAND USE Vallelunga and Monumenti quarry

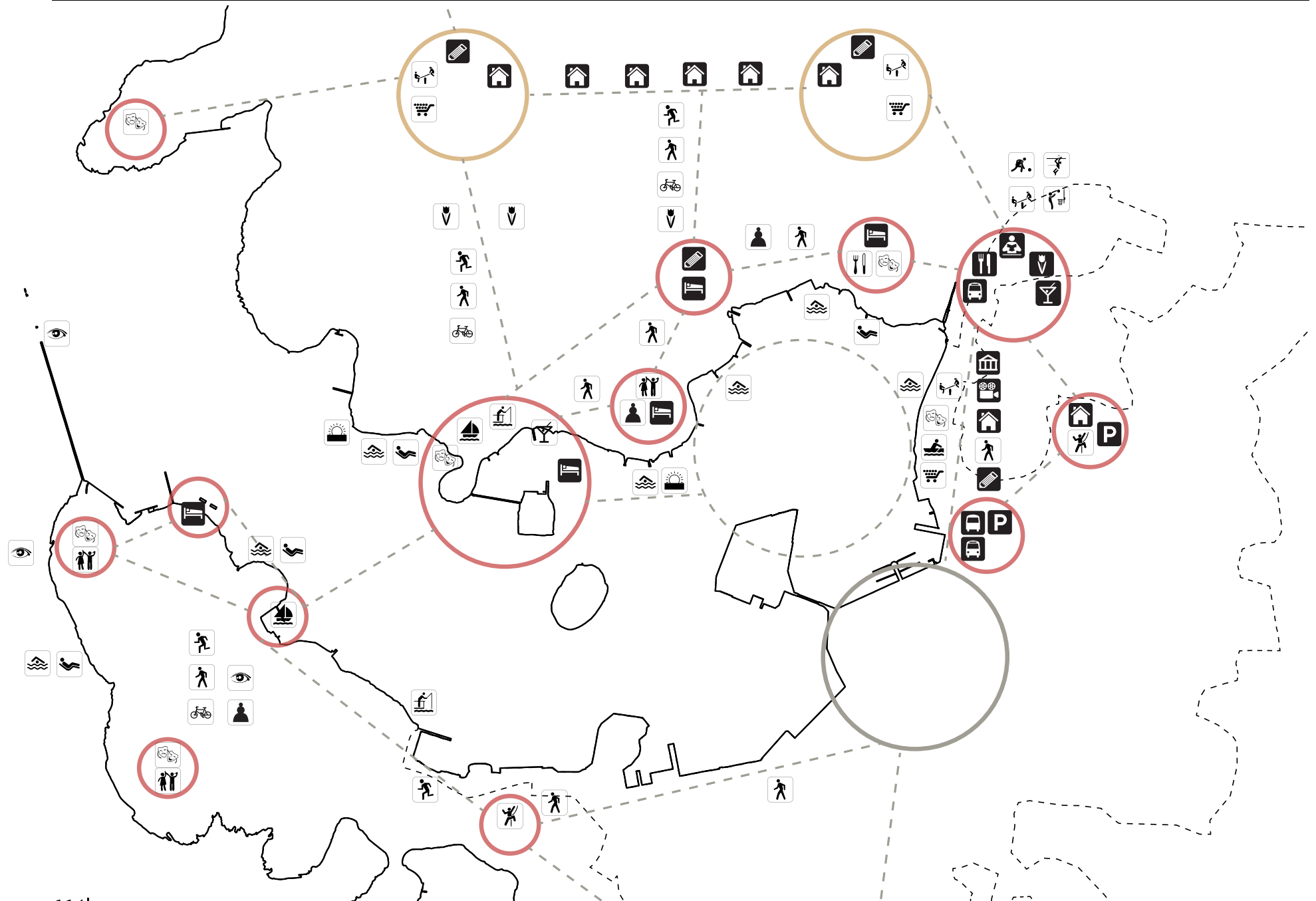




POSSIBLE LAND USE Zonki and Stinjan


































CONCEPT OF PROGRAM PROPOSAL

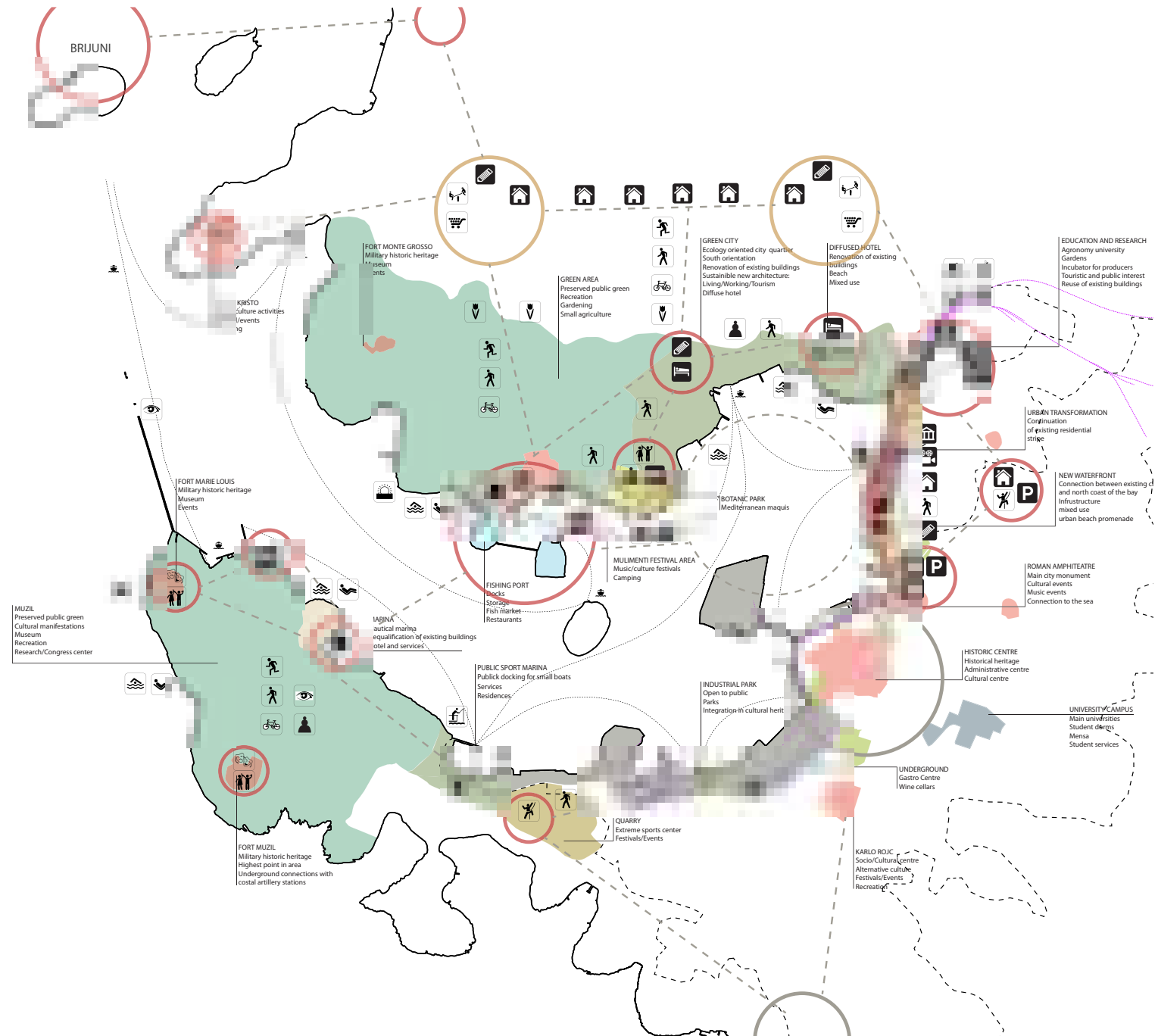
legend:

Outdoors activities

 ROWING	 SITTING
 SAILING	 LAYING
 JOGGING	 SUNBATH, SUNSET VIEW
 WALKING	 VIEW, PANORAMA
 BIKING	 OPEN SPACE ART
	 FISHING
 DANCING	 WATER SPOT
 GROUP PRACTICING	 OPEN EVENT SPACE
 SKATEBOARDING	
 SKATEBOARDING	
 VOLLEYBALL	 DRINKING
 BASKETBALL	 EATING
 BASKETBALL	 READING
 CHILDREN PLAY	 BUYING
 SWIMMING	
 CLIMBING	
 GARDENING	

Indoors activities





























 HOTEL	 MUSEUM
 BAR	 CINEMA
 RESTAURANT	
 PARKING	
 SPORT	
 NIGHTCLUB	
 SHOPPING, MARKET	
 KINDERGARTEN	
 STORAGE	
 EDUCATION	
 GARDEN	
 PUBLIC TRANSPORT	
 LIVING	
 LIGHTHOUSE	
 OFFICE	
 TRAIN	



CONCEPT OF PROGRAM PROPOSAL and USE OF LAND

legend:

Outdoors activities

	ROWING		SITTING
	SAILING		LAYING
	JOGGING		SUNBATH, SUNSET VIEW
	WALKING		VIEW, PANORAMA
	BIKING		OPEN SPACE ART
	DANCING		FISHING
	GROUP PRACTICING		WATER SPOT
	SKATEBOARDING		OPEN EVENT SPACE
	SKATEBOARDING		DRINKING
	VOLLEYBALL		EATING
	BASKETBALL		READING
	BASKETBALL		BUYING
	CHILDREN PLAY		
	SWIMMING		
	CLIMBING		
	GARDENING		

Indoors activities

	HOTEL		MUSEUM
	BAR		CINEMA
	RESTAURANT		
	PARKING		
	SPORT		
	NIGHTCLUB		
	SHOPING, MARKET		
	KINDERGARTEN		
	STORAGE		
	EDUCATION		
	GARDEN		
	PUBLIC TRANSPORT		
	LIVING		
	LIGHTHOUSE		
	OFFICE		
	TRAIN		

VISUALISATIONS

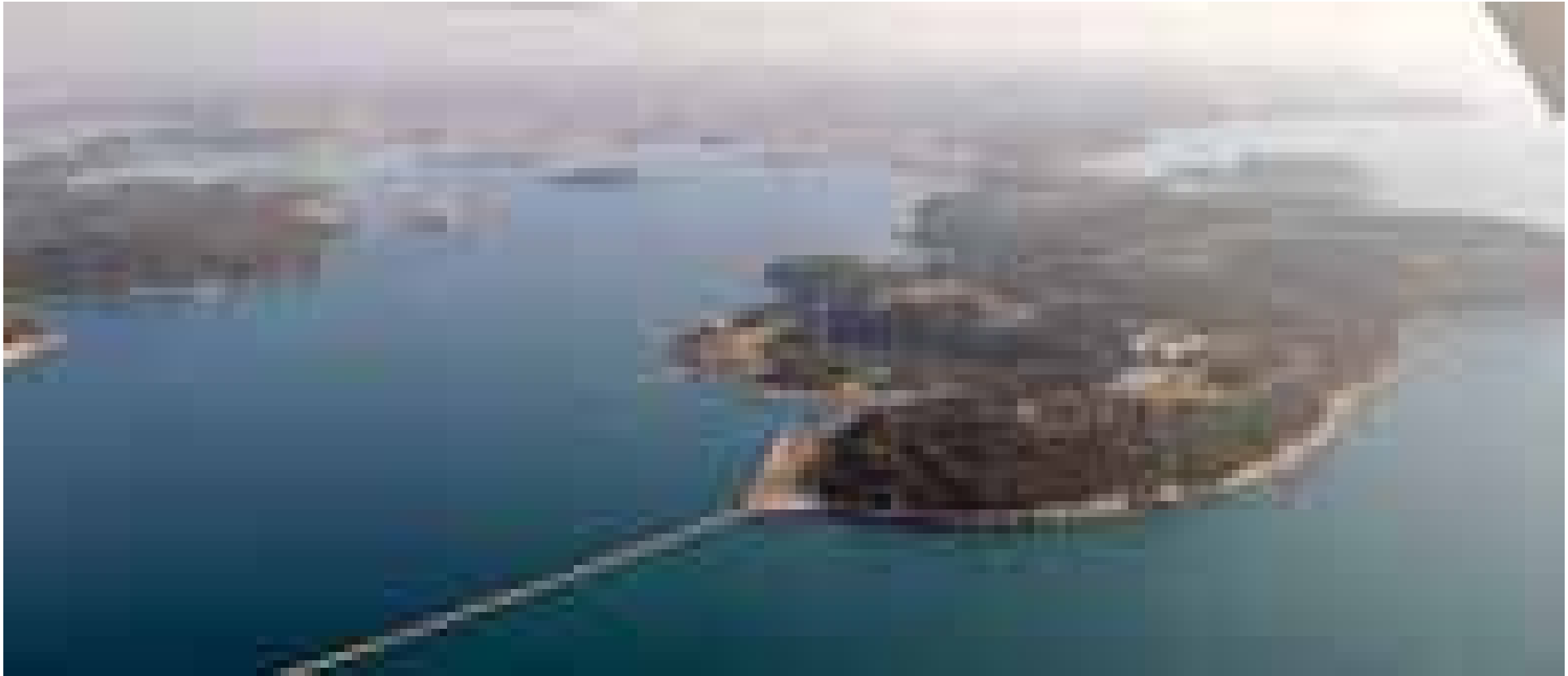












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