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# DIPLOMA

# Yacht Marina Ragusa

## Executed for the Purpose of the Acquisition of the Academic Degree of an Engineering Graduate

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Intro

Basic Features of Tourism and Nautical Tourism

Nautical Ports - Marinas

Types of Ports

Historical development

Meaning in Tourism and Economy

Facts/Croatia

Conclusion

## NAUTICAL TOURISM

#### Intro

Croatia is typically Mediterranean country. Its Adriatic region covers a third of the area and population. Attractiveness of the Croatian coast offers a variety of landscapes, traditions, influences and heritage.

Sea size is almost big as the mainland, making it one of the few countries in the world. The entire Adriatic coast is an attractive and ideal base for the development of different types and forms of tourism, especially nautical tourism. Nautical tourism is the result of growth trends and the achieved level of the economy. The focus is on man, his working time reduction and technological progress that with tourism as psychological component allows many changes, not only in the area where the activities carried out, but by their holders. In this case the city of Dubrovnik and everyone involved directly with the Marina.

Planning the construction of seaports in the cities and towns in the immediate vicinity of the already built area of public ports is particularly important for the island area.

Nautical port as a dynamic company with a modern system of creating value can increase the wealth of human and social harmony and possibility to adapt to different spatial and economic conditions.

As for the chosen location, Croatia has very rich coastline with over 1000 Islands and is very popular nautical destination. City Dubrovnik became very popular among big motor and sailing boats and a regular part of cruising routes. They named it "Pearl of Adriatic" for a reason. City itself is an architectural monument dating from year 900 and the entire old town is under UNESCO protection. Beautiful and popular as it may be, Dubrovniks infrastructure didn't follow that rapidly increasing number of tourists and is now facing many problems that come with mass tourism.

This project main focus was to gain better flow, connection and dynamic within the city by increasing its offer with a modern but still well incorporated sequence to the surrounding heritage.

## Landscape



Fig.01 Plitvička Jezera, National Park



Fig.02 Motovun Town, Istra



Fig.03 Kornati, National Park

## Tradition



Fig.04 Alka, Knight Games



Fig.05 Dubrovnik Summer Festival - Libertas



Fig.06 International Children's Festival, Šibenik

## Heritage



Fig.07 Diocletian Palace, Split

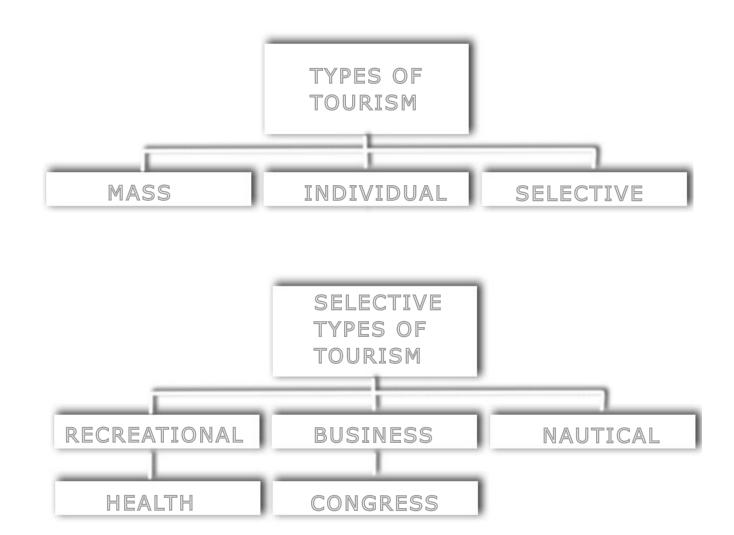


Fig.08 St.Donat Church, Zadar



Fig.09 Amphitheatre, Pula

#### **Basic Features of Tourism and Nautical Tourism**

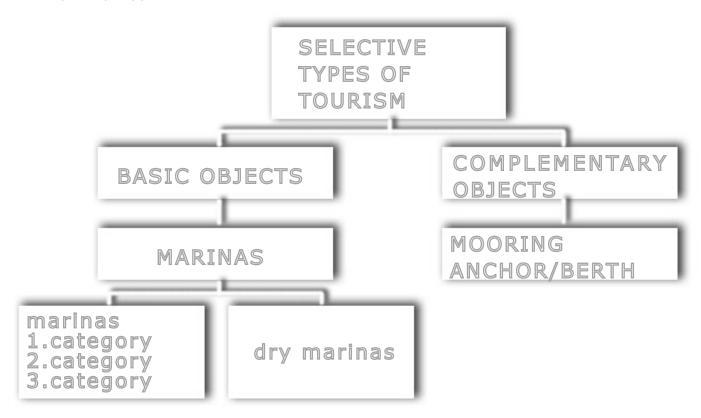


#### - Term Tourism and Nautical tourism

Tag nautical terminology derives from the Greek word nautas (sailor), and indicates the skill of navigation, marine science.

Nautical tourism includes all fun, recreational, scientific, sport, fishing, and refreshing sea surface movement with all sorts of boats, yachts, motorboats and cruises.

This form of tourism is very attractive because it represents a dynamic form of travel offers, and its share in total flows of tourist traffic is getting bigger.



Marina - the main object of nautical tourism

Concept marina is Italian origin, and indicates a small port for the reception of recreational boats. Marina as a modern port facility for the acceptance of sport boats has been described in professional literature since 1928. The National Association of engine and boat manufactures incorporated of America defines marina as place where yachtsmen can moor the boat properly, launch into the sea, repair, provide fuel and other shipping utensils, have a hot shower, dine on the coast and be close to shopping, communication and transportation infrastructure.

Marina is specialized port or modern architectural wave protected structure designed for needs and purposes of nautical tourism and recreation. Marina is defined as a port that provides connection services and storage vessels, but it can provide services and maintenance from servicing contractors who perform these activities or services located at the marina and beyond. Experience of some Mediterranean countries indicates that it's better to organize service in remount shipbuilding companies, while minor repairs may perform better in almost every marina.

Marina is the dominant type of tourist port in the world; it is the ultimate range of nautical tourism offer, because its composition has a number of different attractive and lucrative related elements of service for participants in entertainment navigation.

Marinas are classified into 4 categories; each of them represents the number of stars.

The degree of marine equipment can be divided into the primary-standard comfort, luxury with a high degree of comfort, with the possibility of recreational use of sport and entertainment facilities.

The types of marine construction are divided into an American, Atlantic, Mediterranean type.

U.S. marine type is characterized by its simple and standard-quality and relatively cheap construction, the functional arrangement of facilities, good equipment and efficient organization of work.

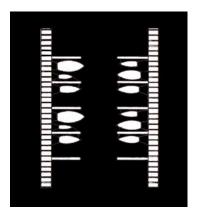


Fig.10 American type

Atlantic marine type, and all European marine, in architectural terms there is no unique type of construction, is less equipped in the average and has less capacity than the American type marine. Styles depend on the construction areas, and may be pyramidal, stepped, ambient and high.

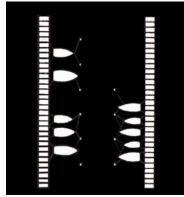


Fig.11 Atlantic type

A relatively small land area with solid construction of infrastructure facilities characterizes Mediterranean type. These types are linked with marine tourist resort or are often part of it. Have a limited number of berths and are intended mainly for guests in a short summer season, which reside in the port.

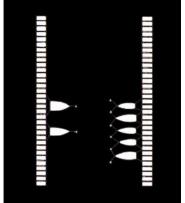


Fig.12 Meidterranean type

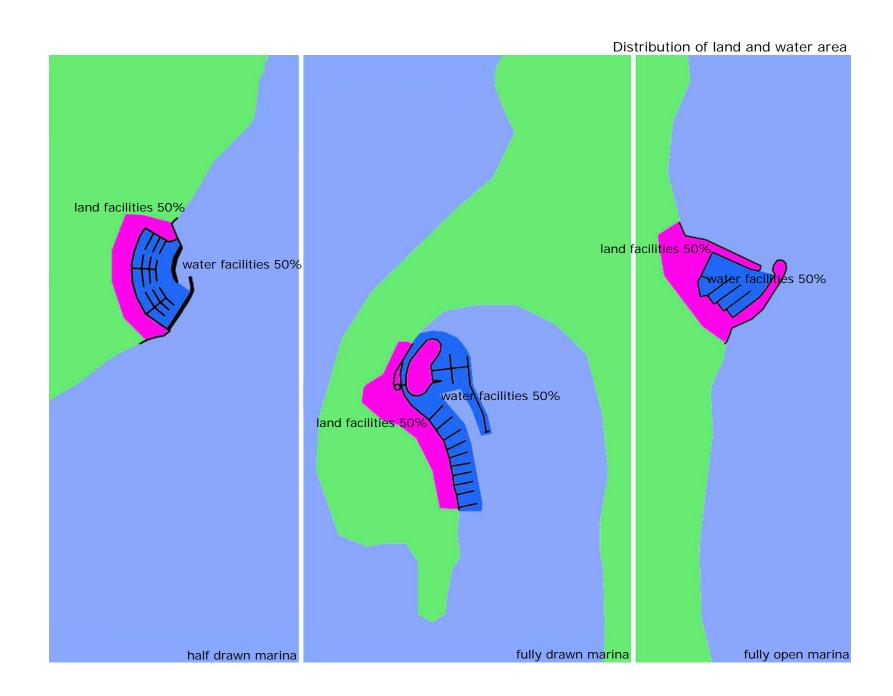




Fig.13 Finike, Turkey

Fig.14 Marina di Varazze, Italy

Fig.15 Sant Feliu, Spain

With respect to the position of the waters in relation to the terrestrial environment,

there are four basic types of shape:

- open
- half drawn
- drawn
- fully drawn

Each of these types are adapting to the surrounding terrain and conditions of the construction.

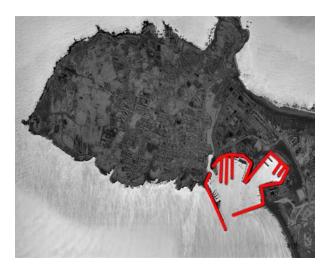


Fig.16 Porti de Peniche, Portugal

### Types of ports for Nautical Tourism

Ports for nautical tourism are classified per type. The type is being determined by the services rendered at a certain port. Each type of the port for nautical tourism,

depending on the rendered services, must comply with prescribed minimal and special standards regarding its construction, appearance and equipment.

Ports for nautical tourism are classified as:

- Anchorage
- Mooring
- Dry storage marinas
- Marinas

Ports for nautical tourism must comply with minimal conditions prescribed by there above mentioned

Regulation, unless differently prescribed for a certain port by the same Regulation. Minimal conditions are regulated as general and special minimal conditions.

General minimal conditions refer to:

- Proper operation and functioning of appliances/installation and equipment
- Electric energy supply
- Supply of sanitary safe wat

- Basic services offered in the port (use of telephone, facilities for refuse and waste materials disposal, warden and reception service)
- Premises for personal hygiene of tourists boaters
- Facilities and equipment for environmental protection
- Fire safety
- Personnel
- Rooms for personal hygiene of personnel

Some ports for nautical tourism depending on its type must satisfy special minimal conditions, and they refer to:

- Obligatory structure of installation and equipment
- Minimum of basic services that must be offered
- Minimum additional services (shops, catering etc.) that a port must provide for its tourists-boaters

Ports for nautical tourism belonging to the type anchorage, mooring and dry storage marina, in order to be classified, must comply with general minimal conditions and special minimal conditions. These types of ports for nautical tourism are not being categorized.

### Historical development of Nautical Tourism

Basic feature of the origin and development of nautical tourism is spontaneity and lack of interference by state authorities through planned initiatives and appropriate investments. Present situation, as a result of spontaneous development is, increasing its organizational and planning frameworks, but there are still elements of basic development present.

Tourism nautical history can be linked with the history of maritime navigation and navigation, but only with those boat trips, which have tourist character. This follows from the assumption that the sea journeys were taken in the past, not only because of wars, but out of curiosity, adventure and fun.

The history of nautical tourism is linked with nautical sports, sailing and rowing. As early as the 16th century the Dutch organized yachting

competition. The beginnings of nautical tourism in England are found in the 18th century when King Charles 2nd from exile led the Dutch yacht, which sailed for recreation.

Early 18th century in England was established first yachting club and in Italy in the late 19th first century Race Society (Societa share of race). Classical period of nautical tourism, which was limited to a narrow circle of wealthy people, took a relatively long time. Birth of modern nautical tourism is in

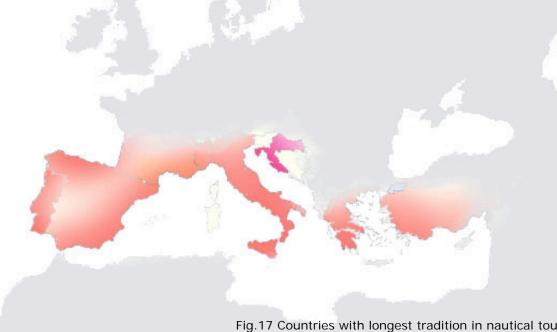
direct relation with the first cruise, which were organized mid of 19th century. Until the end of the 2nd World War II maritime tourist developments cannot hold a special form of tourism, because they have no mass character.

1960's, the dynamics of tourist developments on the waterways for recreation facilities is increasing rapidly. Bigger crafts are being built which are

constantly changing content, participants, and forms of nautical tourism. Sailors are increasingly staying in the tourist ports and are using different facilities and services.

Nautical tourism in the modern sense first appeared in the USA and Canada. Growth rate is almost fantastic, the annual disburse for boats today crossed the worth from \$ 20 billion. How much significance for the national economy has the development of nautical tourism, confirms the fact that federal law regulates the leisure interior design and use of the free surface of the sea and coastlines for the purpose of nautical tourism.

Nautical tourism in Europe has the longest tradition in the Mediterranean, but also very dynamic development. There are three zones in its position: the Mediterranean, the Atlantic coast region, and the area of internal European waters. Dynamics of development as a result of the favorable natural climatic, cultural and ambient opportunities are particularly pronounced in some Mediterranean countries (Italy, France, Spain, Greece and Turkey). Because of its comparative advantages and development activities Croatia joins the circle of these countries.



17

Fig.17 Countries with longest tradition in nautical tourism

### The Meaning of Nautical Tourism in Tourism and Economy

Nautical tourism ranks among the fastest-growing types of tourism, which have the characteristics of recreation. It represents a new socio-economic phenomenon in our society, whose future is yet to come. Its multiple effects contribute to the wealthier and versatile quality of life, urbanization and adjustment of surfaces, and it achieves a number of other effects that are directly or indirectly related to the complete humanization of tourist space.

Exceptional economic effects and the high profitability of nautical tourism, and many multiplicative effects speak in favor of increasing interest in the maritime industry. Increased interest in investing in nautical tourism and port development derive from its high rate of return (general and individual), which is the result of the positive impact of many functions that are generating in these activities and are effectively implementing and interweaving in a high nautical and tourist spending by boaters and vessel. On average their consumption is two times higher than the "classic tourist". Nautical tourism has a high social and significant individual profitability. It occurs as the result of a certain level of general social development, and a certain degree of development of coastal and island tourism.

Paramount importance of nautical tourism is in stimulating the development of the overall economy of the country and is reflected in the following benefits:

- 1) Nautical tourism has the highest and strongest multiple effects, whereby it would definitely, in the shortest period of time, become the first Croatian competitive product in the world.
- 2) To the tourism sector which provides minimum 180-210 days a year business and trade investment capital in relation to the hotel capacity is much more dynamic.
- 3) Small investments for the same number of accommodation units.
- 4) Return on invested capital is up to two times faster than in other branches of tourism
- 5) Leads financially stronger and a better clientele, which encourages and reinforces the quality image, (for that was initially enough to build three marinas, each with a capacity for about 350 commercial boating berths where 20% of berths were intended for boats and yachts from 15-40m, which on the Croatian coast is almost none).

6) Comparative advantages, and there are many of them, are almost crucial for the development of nautical tourism in relation to our direct competitors in the Mediterranean.

Guests, who annually hold the 30m boats, usually built their summer villas in the same city. It's been noted that the last few years the Germans, who for the past fifteen years (with a house and boat stationed at 180 days per year) in Spain, are now looking for new attractive destinations.

An important factor in the development and improvement of nautical tourism are the natural conditions and material basis, resources and ongoing investment build. One of the basic tasks of infrastructural building is the appropriate construction of tourist ports. If the tourist port wants to fill the requirements of users, it must be organized to enable the provision of basic and additional services. These are the services that are being provided to the participants in nautical tourism, and therefore to the sailing units.

Through consumption of sailors, particularly overseas, numerous direct and indirect effects are realized for individual businesses, and the country's economy as a whole. For example, a marina, a complex of buildings that offer a range of services, often achieve a higher rate of return of capital invested in their construction than other types of investment in tourism. Furthermore, there are builders, shipbuilders and others who have a direct impact from the sale of its products through retail and catering services to sailors.

Nautical tourism was very long not given the appropriate meaning in shaping the tourist offer; a major determinant of tourism development was the construction of conventional accommodation and orientation to mass tourism. Today's characteristics of tourism demand are orientation on individualism, exploring ambient values and adventure. To meet these market requirements, it is necessary to develop nautical tourism as the most promising, given the ideal natural geographical and maritime conditions.

By some estimates - nautical tourism in Croatia has the greatest prospects for growth and because of the possibility of pleasing the needs of tourist visitors from highly developed countries of Europe.

Croatian coast is full of bays, which go deep into the land, gravel beach, rocky shores, cliff coast, and somewhere sandy. Large number of natural harbors and bays with favorable maritime features allows the construction of maritime ports, and security means the acceptance of smaller and larger ships. A small fleet, which is used in nautical tourism in Croatian area, can use 704 of the country's coast ports and bays, 414 is mainly inhabited, and 290 fully or partially built, permanently or temporarily inhabited. From Inhabited ports 137 is on the mainland and 153 on the islands.

The 390 ports of which the sailors get information cover nautical travel guide for the Croatian coast. Specified numbers of ports, only 57 are listed as marine or nautical ports that offer organized embroidery, supplies and other tourist services, and 333 are classified as anchorages. Differences in addition to offering are safe berth in marina while the berths in ports are designated as temporary anchorages. In 57 ports, identified as marine, in year 2003 offered a total of 14 730 berths and 4910 on the land. Today these capacities are larger.

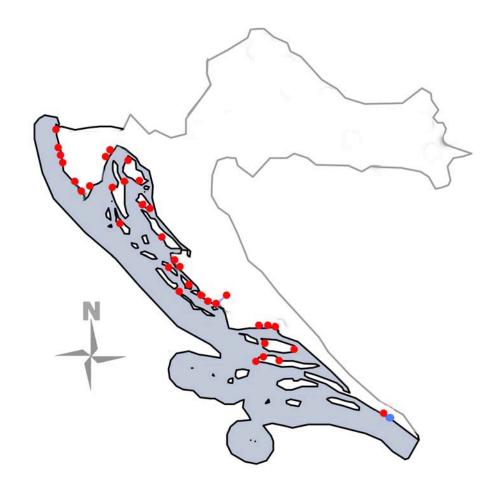


Fig. 18 Map of Marinas in Croatia

Nautical tourism as a phenomenon ranks among the growing tourism activities, which have characteristics of recreation. It represents a new socio-economic phenomenon in the society, whose future is yet to come. Its multiple effects contribute to the new, imaginable quality of life, urbanization and adjustment of surfaces, and a number of other effects that are directly or indirectly related to the complete humanization of space tourist.

Exceptional economic effects and profitability of nautical tourism, with many multiplicative effects speak in favor of increasing interest in the maritime industry. Through consumption of sailors, particularly overseas, numerous direct and indirect effects are realized for individual businesses, and the country's economy as a whole. Marina, a complex of buildings that offer a range of services, often achieve a higher rate of return of capital invested in their construction than other types of investment in tourism. Furthermore, there are builders, shipbuilders and others who have a direct impact from the sale of its products and services at restaurants and shopping facilities and the actions of the sailors.

Nautical tourism was very long not given the appropriate meaning in shaping the tourist offer and the main principal of tourist development was the construction of conventional accommodation units and orientation to the mass tourism. Today's characteristics of tourism demand are orientation on individualism, exploring ambient values and adventure.

Nautical tourism, as one of the youngest economic activities, is specific for its uneven spatial development. In certain areas, because of their tourist attraction, was built a number of marinas and tourist port while on the other areas ports of nautical tourism were not planned.

Proceeding from the principle of selective and sustainable development, which today is imperative in tourism, pontoon berth may, in the context of the development of nautical tourism, complementary contribute to the overall structure of nautical networking function balanced development.

Concept of sustainable development of nautical tourism has become a reality in order to minimize the effects of mass tourism and wild, where they lose their proper criteria of human action and behavior, and where decisions are made for individual interests. Taking into account the efficiency of operations, special attention should be paid to the preservation of the Adriatic ambient characteristics and natural ecosystems. Nautical tourism is a subsystem of maritime services, and other economic activities and has the characteristics of dynamic and open system that interactively communicates with its environment.

Ports of nautical tourism and nautical tourism in the whole of the maritime system and its economy have become one of the branches of the tertiary sector which is the fastest growing.

History

Growth of Nautical, Cruising and Congress Tourism

Places of Interest

Problem Zone

# **DUBROVNIK**



Fig.19 Old Town



Fig.20 Gruž Harbour

#### The Establishment of Dubrovnik

Dubrovnik was founded in the first half of the 7th century by a group of refugees from Epidaurum (today's Cavtat).

They established their settlement at the island and named it Laus.

Opposite of that location, at the foot of Srđ Mountain, Slavs developed their own settlement under the name of Dubrovnik (named by "Dub" - type of wood). The settlements were separated by a

channel, which was filled in 12th century, present Placa or Stradun, and since than the two settlements have been united. At that time the city walls started to be built as a protection from different enemies (Arabs, Venetian, Macedonians, Serbs, etc.), who wanted to conquer Dubrovnik.

### The Origin of the Name Dubrovnik

The today's name of Dubrovnik is derived from the Croatian word Dubrava, which means oak woods as, in the past, oak trees surrounded Dubrovnik. The Latin name Ragusa - Rausa, in use until the 15th century, originated from the rock (lat. Lausa - meaning rock) where the first settlement was established.

#### The History of the Dubrovnik Republic

From its establishment the town was under the protection of the Byzantine Empire that helped Dubrovnik in the wars against Saracens (886- 887), Bulgaro-Macedonians (988), and Serbs (1184). After the Crusades Dubrovnik came under the sovereignty of Venice (1205-1358), and by the Peace Treaty of Zadar in 1358 it became part of the Hungarian-Croatian Kingdom. Having been granted the entire self-government, bound to pay only a tribute to the king and providing assistance with its fleet, Dubrovnik started its life as a free state that reached its peak in the 15th and 16th centuries. In 1526 Dubrovnik acknowledged the supremacy of the Turkish Sultan (annual tribute was paid to the Sultan). A crisis of Mediterranean shipping and especially a catastrophic earthquake on the 6th of April 1667 that killed over 5000 citizens, including the Rector, leveling most of the public buildings, ruined the well being of the Republic.

With great effort the Republic recovered a bit, but still remained a shadow of the former Republic. In 1806 Dubrovnik surrendered to French forces, as that was the only way to cut a month's long siege by the Russian-Montenegrin fleets (during which 3000 cannon balls fell on the city). The French lifted the Russian-Montenegrin fleets and saved Dubrovnik for the time being. The French army, led by Napoleon, entered Dubrovnik in 1806 In 1808 Marshal Marmot abolished the Dubrovnik Republic.

#### The History of Dubrovnik from the End of Republic until today

In 1809 Dubrovnik become part of the Illyrian Provinces. In 1815, by the resolution of Vienna Congress, Dubrovnik was annexed to Austria (later Austria-Hungary), and remained annexed until 1918 when it became part of the Kingdom of Serbs, Croats, and Slovenes. In 1929 the Kingdom of Serbs, Croats and Slovenes became the Kingdom of Yugoslavia and was divided into 8 districts. Until 1939 Dubrovnik was part of Zetska district and then was included in Banovina of Croatia.

At the very beginning of the World War II Dubrovnik was first part of the Independent State of Croatia. From April 1941 until September 1943 Dubrovnik was occupied by the Italian army and after that Germans occupied it.

In October 1944 Partisans liberated Dubrovnik from the Germans. In 1945 Dubrovnik became part of the Federative People's Republic of Yugoslavia. In 1963 the Federative People's Republic of Yugoslavia changed its name into Socialist Federal Republic of Yugoslavia and was consisting of 6 republics. Dubrovnik was part of the Socialistic Republic of Croatia. In 1990 the republics of the Socialistic Federal Republic of Yugoslavia reached their independence. The Socialistic Republic of Croatia was renamed into Republic of Croatia.

At October 1, 1991 Dubrovnik was brutally attacked by the Serbo-Montenegrin army. The Serbo-Montenegrin siege of Dubrovnik lasted for seven months, and in May 1992 the Croatian Army liberated Dubrovnik and its surroundings, but the danger of Serbo - Montenegrin sudden attacks lasted for another three years. Today, Dubrovnik is a free and safe town, worldly known, and the most popular tourist destination in Croatia.

Dubrovnik got its own Statute as early as 1272 and, among others, codified Roman practice and local customs. The Statute included the town planning and regulations of quarantine (hygienic reasons). The Republic of Dubrovnik was very inventive regarding laws and institutions that were developed very early:

- Medical service was introduced in 1301.
- The first pharmacy (still working) was opened in 1317
- A refuge for old people was opened in 1347
- The first quarantine hospital (Lazarete) was opened in 1377
- Slave trading was abolished in 1418
- The orphanage was opened in 1432
- The water supply system (20 kilometers) was constructed in 1436

#### The naval power of Dubrovnik

The history of Dubrovnik is directly connected with the history of its navy.

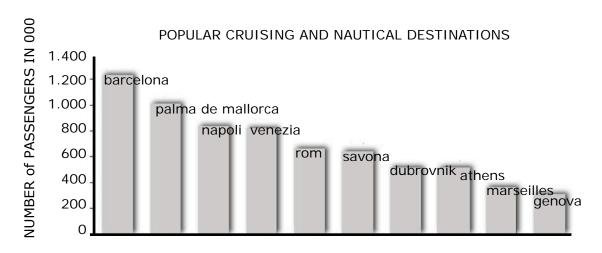
The Dubrovnik Republic and its government managed to use its closeness to the Sea in the best possible way, ensuring growth and freedom during centuries. Without its naval power, Dubrovnik would probably have never become one of the most important

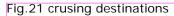
cultural and merchant centers on the Mediterranean, especially from the 16th to 18th century.

The beginning of the Dubrovnik navy can be traced back to the 9th century and it reached its highlights between 1580 and 1600. In that time Dubrovnik merchant navy had more than 200 ships that sailed in all the seas. Numerous documents testify about the merchant industry in Dubrovnik, since the laws of the Dubrovnik Republic required that every ship had to have a writer. That way, all information's were archived, showing ownership contracts, names of the captains, information's about the ports etc. The diplomacy skills of the Dubrovnik Republic are unique in the naval world history. Business was conducted under very favorable conditions with numerous countries along the Mediterranean, turning even enemies into trading partners.

## Growth of nautical, cruising and congress tourism

In accordance with the increasing number of cruises and passengers on such journeys in the world and in the Mediterranean, Croatia shows significant increase of foreign ships cruises. This increase is particularly pronounced in the number of passengers on these trips, which has in the past four years more than doubled. Cruisers are mainly visiting those ports and towns on the coast, which have requirements for their anchorage, and are also very attractive to visitors (Dubrovnik, Split, Korcula, Zadar and others).





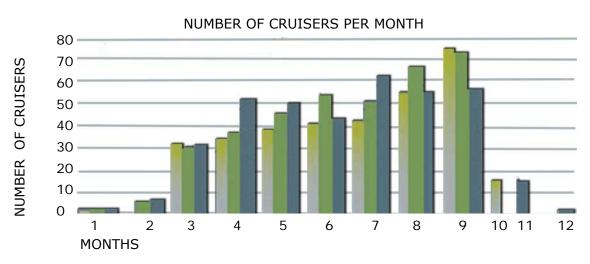


Fig.22 number of cruisers

Fig.23 demand structure of cruising trips

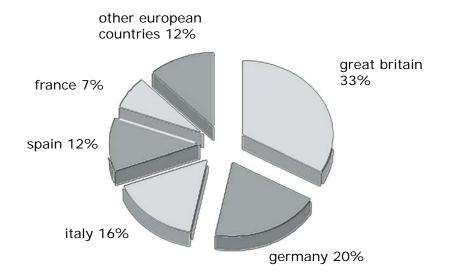


Fig.25 frequency arrival to Croatia

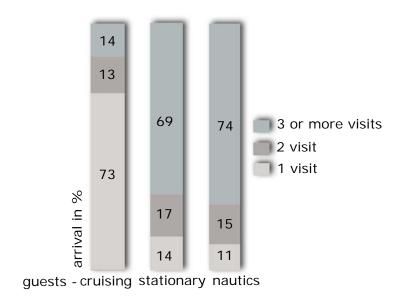


Fig.24 destination structure of european sailing

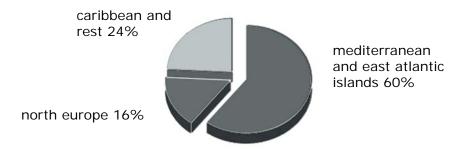


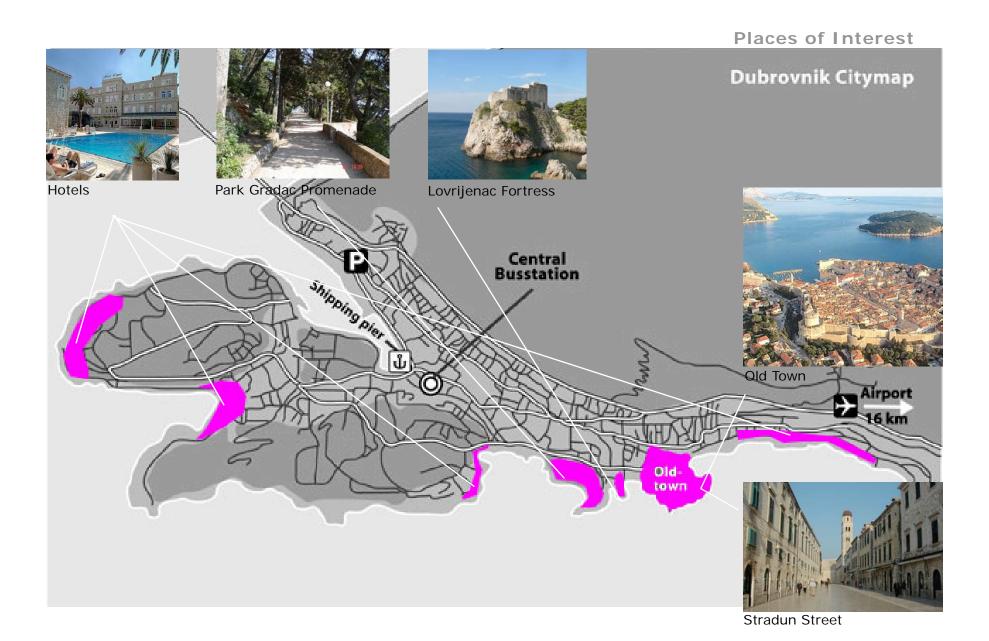


Fig.26 Cruisers in Gruž Harbour

#### Cruising ships effect

In the past five years turnover of tourists on cruise ships has changed the structure of tourist traffic in Dubrovnik. Tourists on cruise ships are not the only factors affecting the transformation of the historical center, but their influence is considerable. Knowledge of the process is little known, and specific studies have been conducted to date. The study by the Institute for Croatian tourism shows that cruising in this sense does not contribute to knowledge about changes in the area that is visited by big masses of tourist, which of course refers to the historic city of Dubrovnik. This study is still an open question; precisely the impact of tourists on cruises to the historical core transformation by their visit. Present problems of historical core with the arrival of tourists on cruises are growing. Therefore, this study wants to comprehensively examine and evaluate the impact of this phenomenon.

From 2001 tourists intensively visited Dubrovnik from the cruise ships, since then historical core experiences radical changes and keep changing faster than ever before. Due to the short time spent in the destination, of 5-7 hours consumption and speed of service and other contents which are offered to tourists on cruise ships, we're talking about the product, "high speed". This study reveals effects, good and bad that are caused by cruising ships. According to data obtained by the Port of Dubrovnik in year 2007 cruise ships average retention is 8.1 hours in Dubrovnik on the berth.



#### **Problem Zone**

Main focus of this project was creating new and better city dynamic. Easier access to the Old town by connecting it to the Gruž Harbour with a promenade. An Overture to the Old Town.

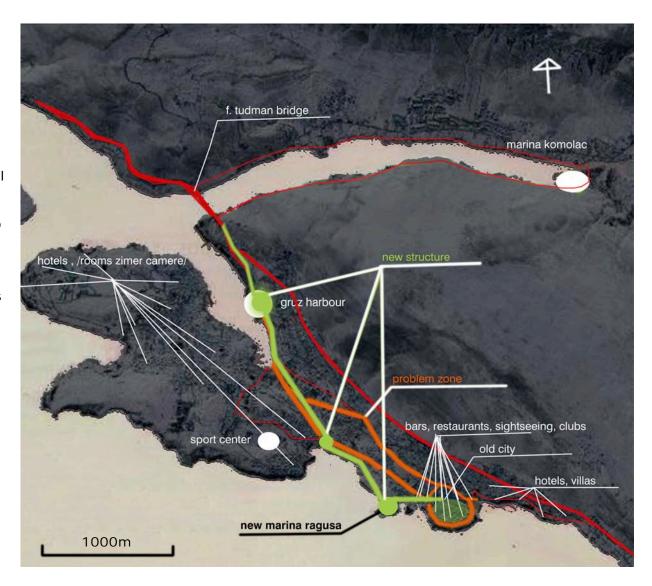
Promenade was planned as a topical and functional way to draw tourist from cruisers and simultaneously to

people that arrive from the ships.

It would provide new working places for the city and improve the communities with the new included offers or so called Hot Spots.

create easier flow of large mass of

Hot spots were designed to provide free and exciting motion of tourists and locals.



## Future planned city development



Fig. 27 Future pedestrian zone in Gruž Harbour



Fig. 28 Historical core of Boškovićevo block



Fig. 29 Gruž Harbour with ship terminal



Fig. 30 Reckreational zone, Big and Small Petka



Fig. 31 Sport-recreational centre



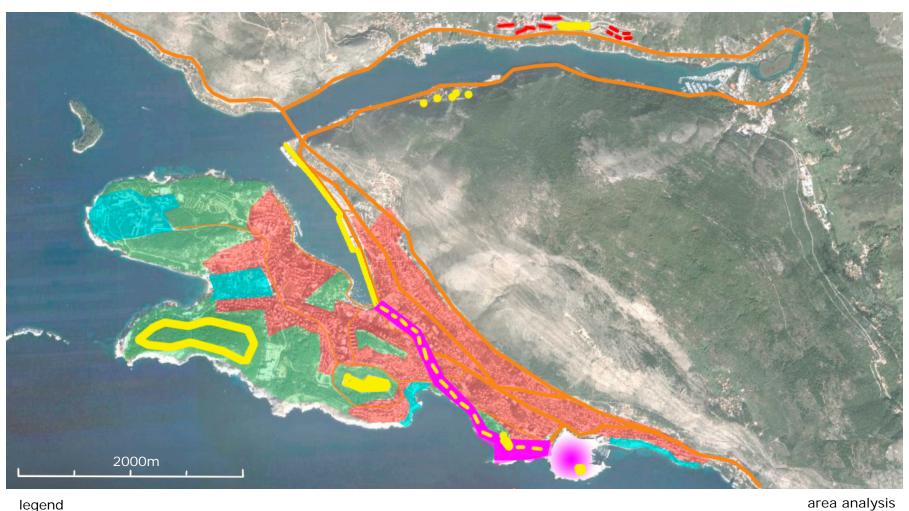
Fig. 32 Park Gradac



Fig. 33 Centre Mokošice



Fig. 34 Countryside villas, Rijeka Dubrovačka





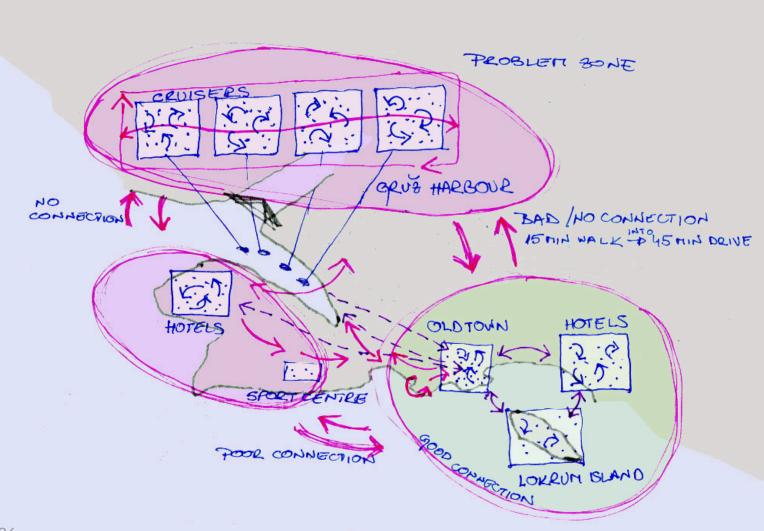
New City Hot Spots

Merging with Nature Landscape

Merging with Culture

# SITE ANALYSIS

#### CITY MOVEMENT



Hot spots are thought as a relief to already crowded city traffic and a new innovative way of sightseeing and a new place of interests which city can offer.

start point - "gruž" harbour, today under construction, modernization of the entire harbour complex in due to constant cruise ships increasement.

pit stop 1-"the bait" is a lookout with the direct view communication from the harbour, created to draw people.

pit stop 2 - "adventure promenade" is an exciting walk intro into the old city placed on high cliffs, build in coolers every 100m and a beach bar. Beautiful path with interesting facts about dubrovnik which goes along historical park and revives it after many years of not beeing used at all.

pit stop 3 - "Ragusa Yachtmarine" visible from the bait and adventure promenade the new sightseeing multifunctional structure as an implement to the old city architecture and nautical tourism increase.

pit stop 4 - "dubrovnik" a.k.a the pearl of adriatic

#### **New City Hot Spots**

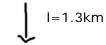


start point: Gruž harbour





pit stop 1: The Bait





pit stop 2: Adventure promenade

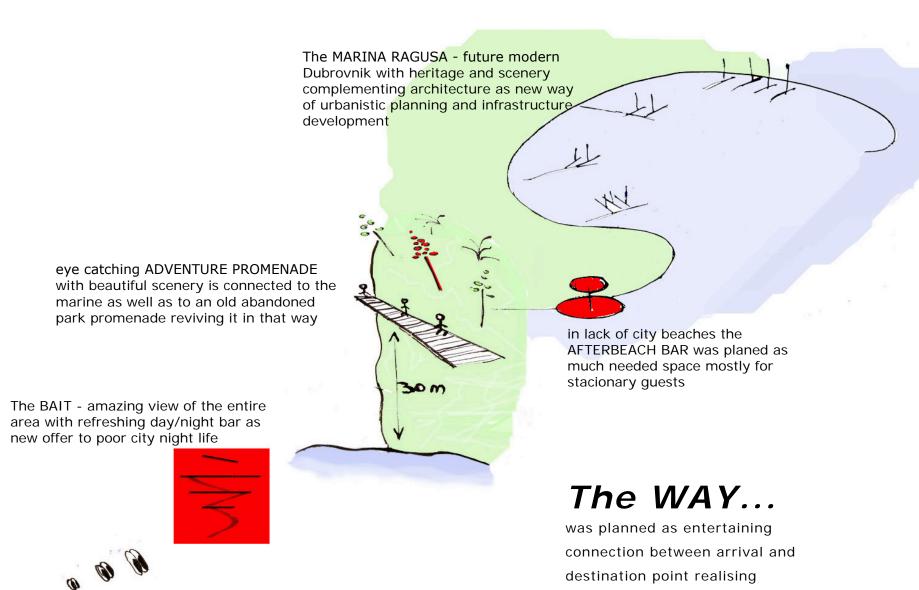




pit stop 3: marina Ragusa



pit stop 4: Dubrovnik, old town total: 2.8km

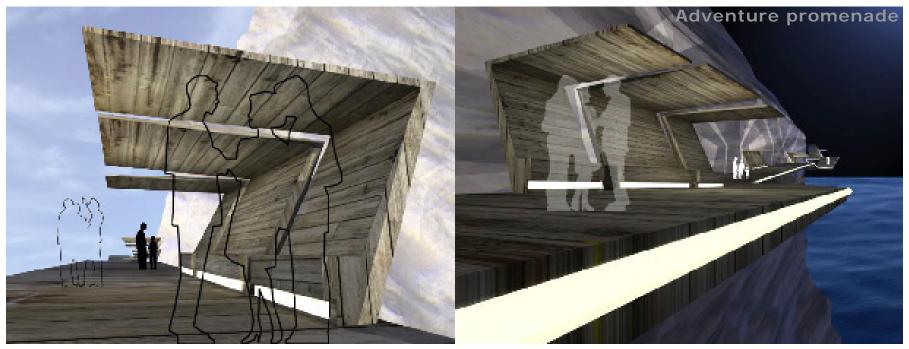


extremly overcrowded old town



THE 60% of TOURIST on cruise ships that stay on board have interesting reachable location in sight distance (the bait) and a street market that leeds to it

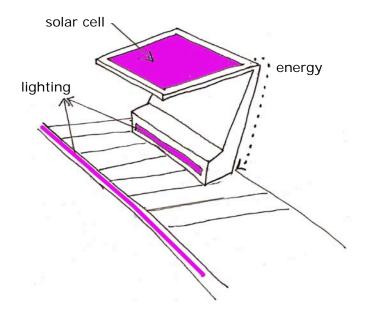


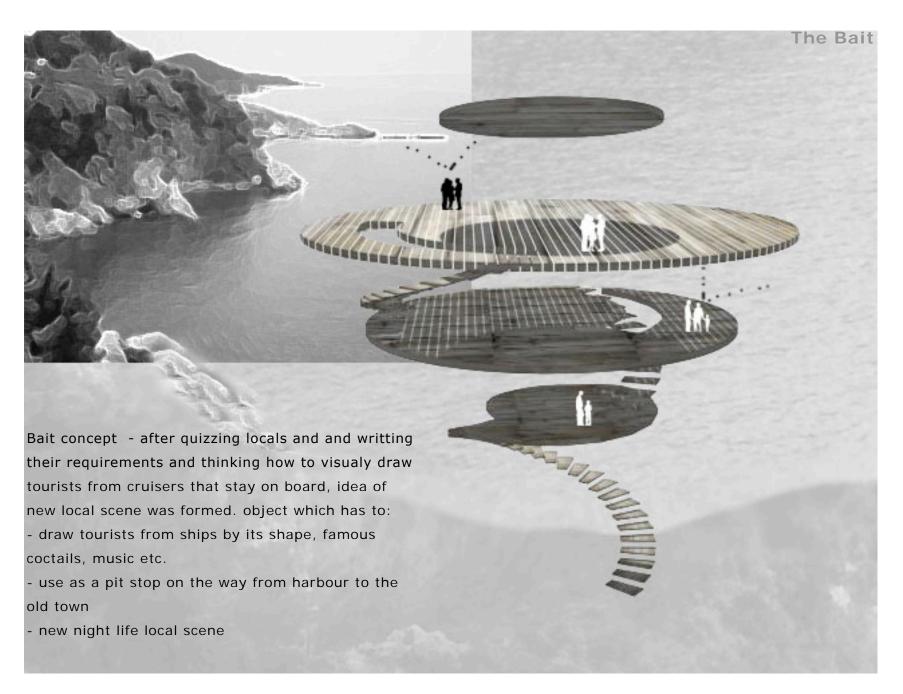


adventure promenade, day/night scene

Adventure promenade is a selfsustainable structure getting power from solar cells and transfering it to promenade lighting. Lights would automatically shine in the night and gather sun energy during the day.

Bench roofing would have wind sensitive mechanism wich would close in case of strong winds. Wooden Teek construction very resistant against salt and different weather conditions.

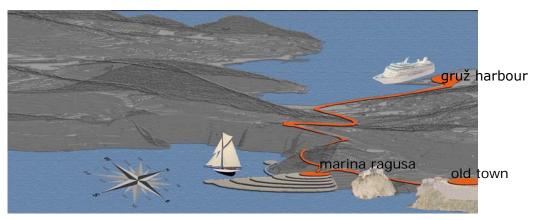




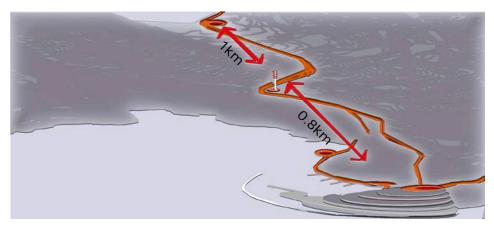
#### Merging with Nature Landscape

#### Focus of the marine is

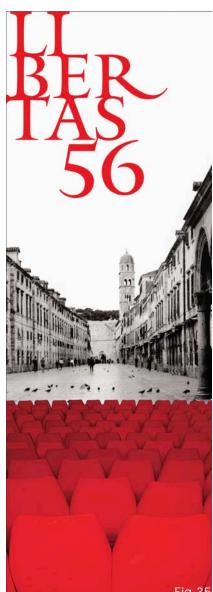
- bringing the nature landscape directly into the building and combining it with expressive architecture, thereby creating new booming and lively landscape catchy for the touristic eye.
- -resolving the communication problem between the harbour and the old town which is caused from underdeveloped infrastructure that wasnt following increasing number of tourists per year.
- providing guests with different services
- creating new dynamics in the city
- better flow of tourist movements



new city dynamic



new pedestrian frendly zone



**Dubrovnik Summer Festival** 

"The history of Dubrovnik Summer Festival was - undoubtedly - conceived during thirteen nights of September 1950, when a real town persistently and uniquely transformed itself into an imaginary Town. Ten years later, French writer Claude Aveline, who had taken part, wrote how he could not surmise that he was attending "the birth of one of the most glorious festivals of our time".

The prehistory of the Festival is not as easy to reach. It seems that its rudiments go back as early ad the rudiments of the Town itself. As if they both grew out of the medieval urban matrix.

Rumour has it that even Reinhardt couldn't resist them at the eve of World War I. And than in 1993, the occasion being PEN World Congress in Dubrovnik, Gundulićs "Dubravka" takes place in front of Rectors palace, for chosen international audience. It was a starry dress rehearsal of the birth of Dubrovnik Summer Festival. But it took horrid expectation in new age martyrdom before the happy moment.

Both history and prehistory from the very first artistic steps of the newborn Festival were at the same time a precious impulse and a limitation. Controversy had been noted a long time ago. And it lasts until nowadays. Because true art will never be a copy of no matter how glorious tradition.

The strategy of this obstinacy was written by no other but a sequence of happy festival nights that Fig.35 divined reality. Nights in which Beauty was won.





Many artist danced the Festival reel. Domestic and foreign. Famous ones and those who will come to fame under Dubrovnik sky. In the course of the half a century names and generations followed each other. But all of them were and always will be enchanted by siren call of the ancient Njarnjas and unrepeatable Dubrovnik, holding in common with its audience, creating at least temporary imaginary Town.

This is history without names or numbers. There is just too many of them, and they are all equally important. For the Festival is nothing but an imaginary parade. And a dream that rounds up that little life of ours."



Dr. sc. Ivica Prlender

Marina as Sequence to Landscape

Common Winds

## SITE PLANING

### Marina as Sequence to Landscape



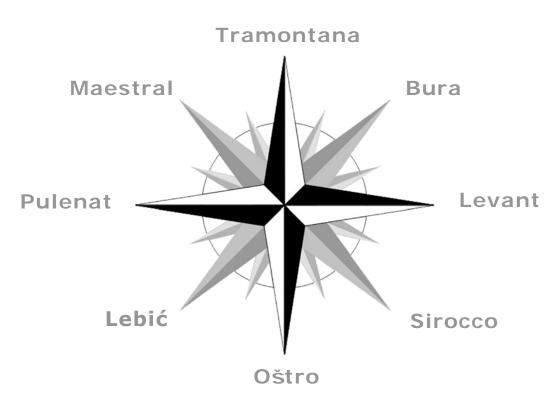


Fig.39 Wind Rose

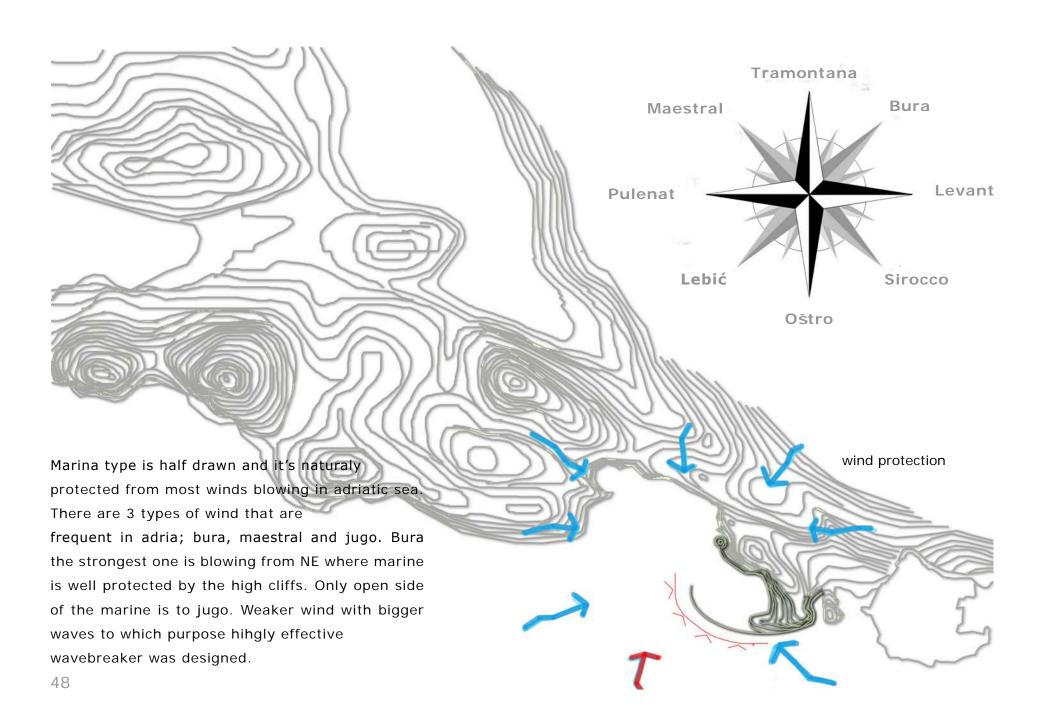
General climatological characteristic. The Adriatic Sea, except its extreme north-west part, has Medterranean climate, characterized by mild and rainy winters, and warm, dry summers. The coldest month is January (average air temperature from 2,8°C in Venice to 8,7°C in Komiza and Hvar), and the warmest one July.

WIND. Predominant winds in autmn and winter are Sirocco and Bora, while in summer the prevailing wind is Maestrale. **Bora** is a cold wind, blowing most often from NE, but its direction can be modified by the extension of coastal massifs.

**Sirocco** is a humid, warm wind blowing on the front of the low pressure area from SE. It usually affects the whole Adriatic, causing heavy seas. It often occurs that while in the south Adriatic and a part of the middle Adriatic is blowing Sirocco, in the north Adriatic is blowing Bora. Bora and Sirocco usually last for 2-3 days.

**Maestrale** is a wind which blows in summer, as a result of the difference in the air pressure above the Mediterranean. It is associated with the nice weather.

SEA BREEZE and LAND BREEZE occur as a consequence of an unequal warming up of the land and sea; the sea breeze blows during the day, and the land breeze by night.



Idea

Form

Influences

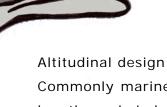
Program

Marina Content

# **CONCEPT**

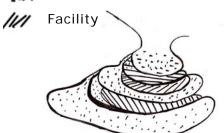


Form of the roof was directly influenced by the form of landscape. Goal was to keep wild natural dynamic of materials and to shape it into friendly public space.



Commonly marine facilities are placed in the ground floor spreading almost always in length rarely in height. Here, facilities were placed both in length and height depending on their function and usage.





#### Function

Marina as variety of different space programs and facilities communicating through public roof landscape.

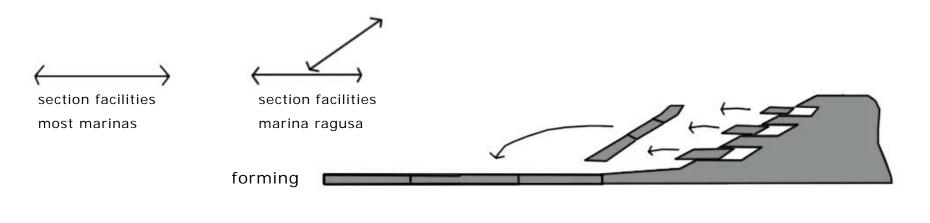
#### Dynamic

Focus was on creating new form with good natural air circulation



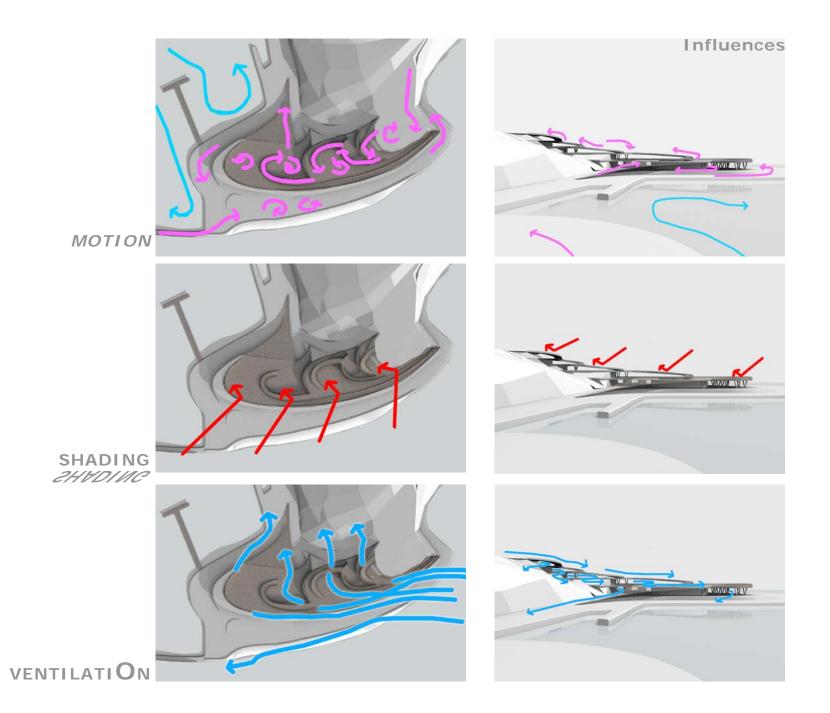
Idea

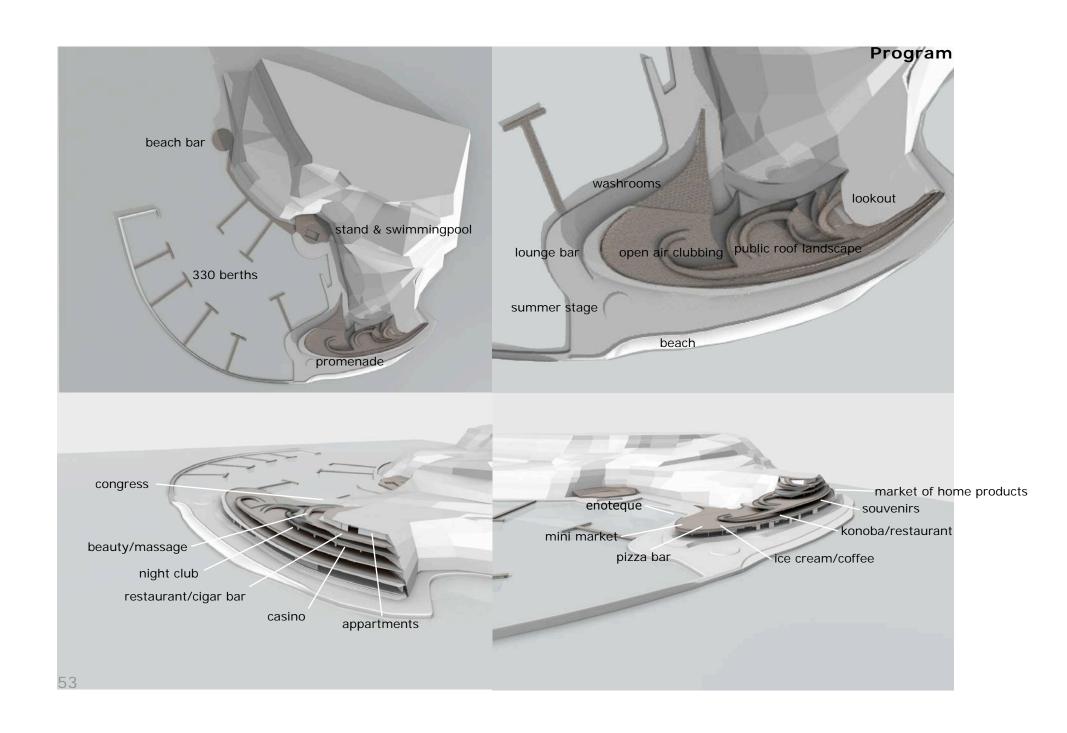
### Form











#### Marina Content

beach bar	night club	medical centre
swimming pool with stand	casino	washrooms
technical support	beauty/massage	water
330 berths	rastaurant/cigar bar	electricity
konoba/restaurant	coffe bar	WC
congress hall	pizza bar	weather
enoteque	mini market	reception
souvenirs/jewlery	laundry	garage
tabacco	catering service	

### Siteplan

Plan Analysis

Site Plan

Basement

Ground Floor

First Floor

Second Floor

Third Floor

Fourth Floor

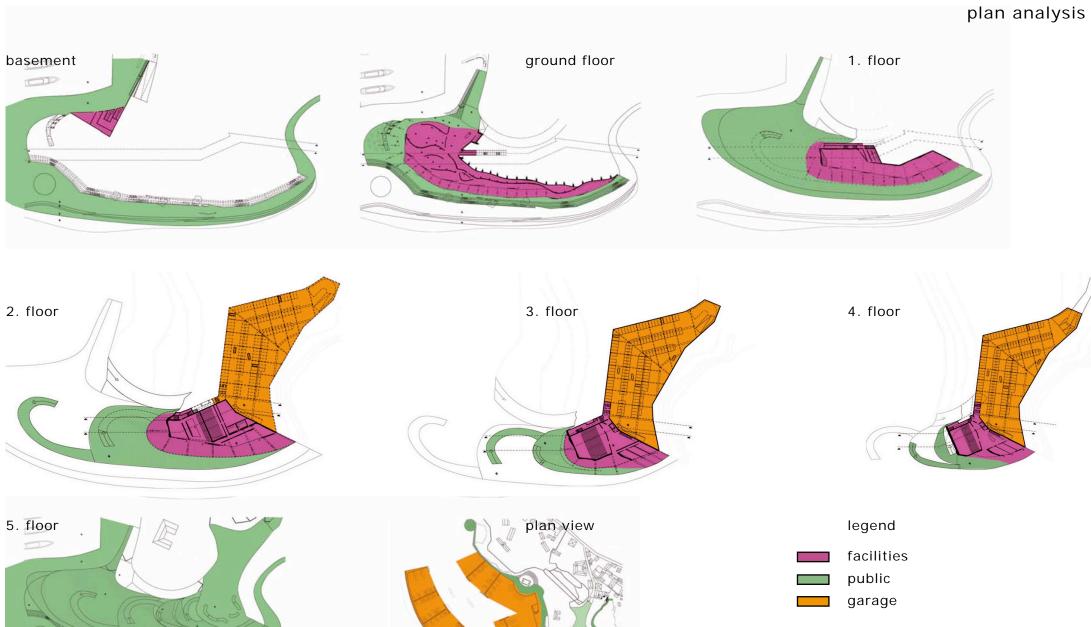
Fifth Floor

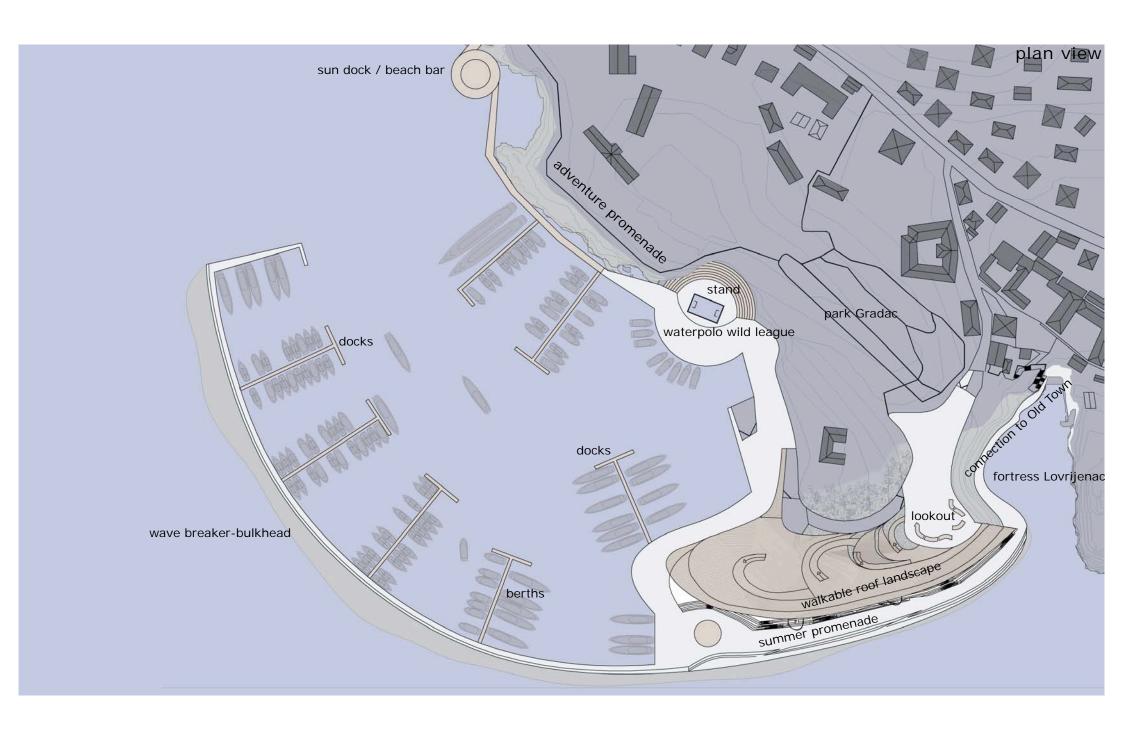
Section 1-1

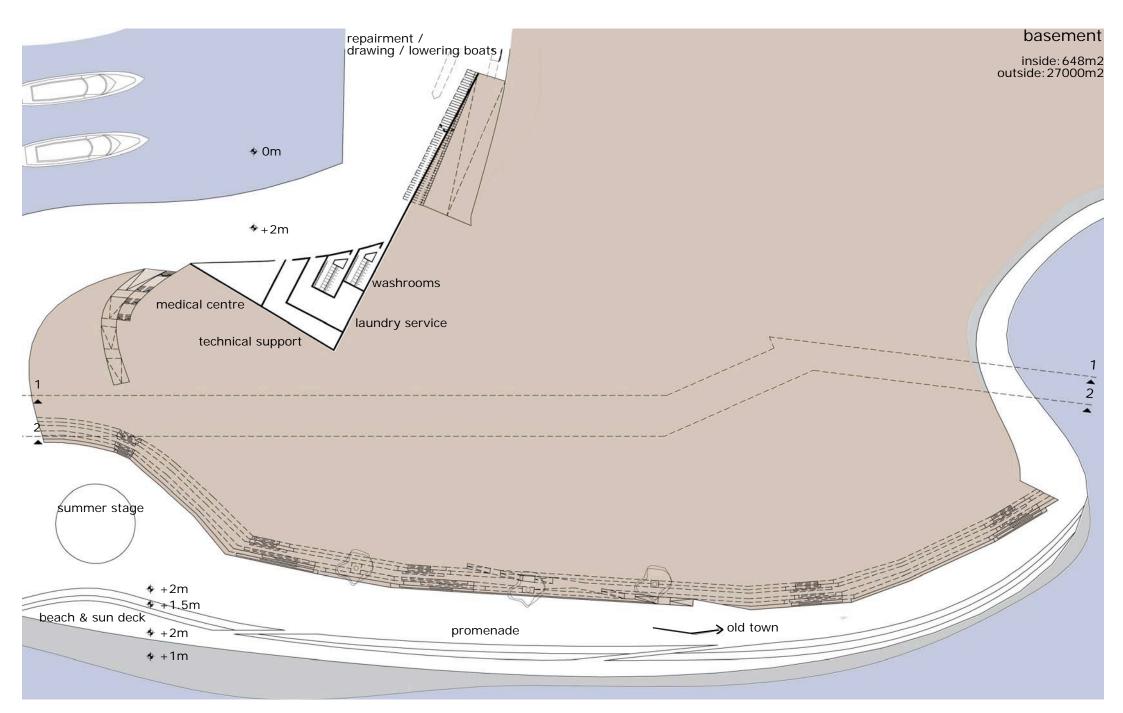
Section 2-2

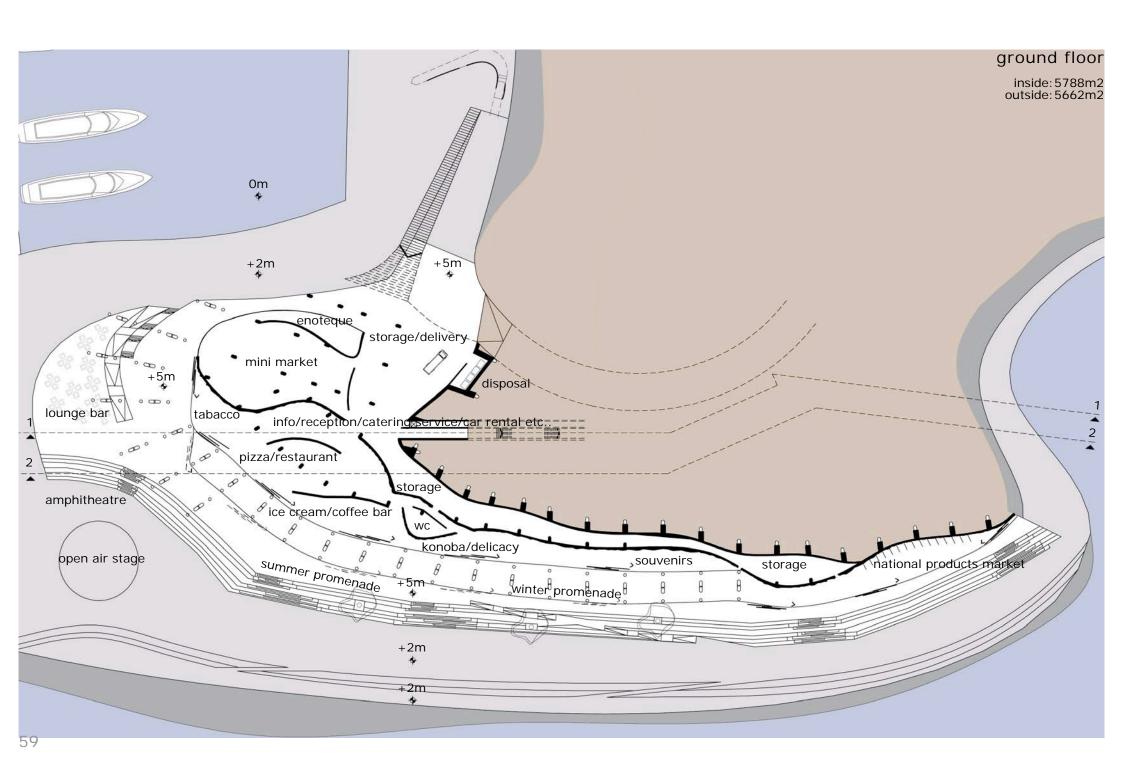
Elevation S

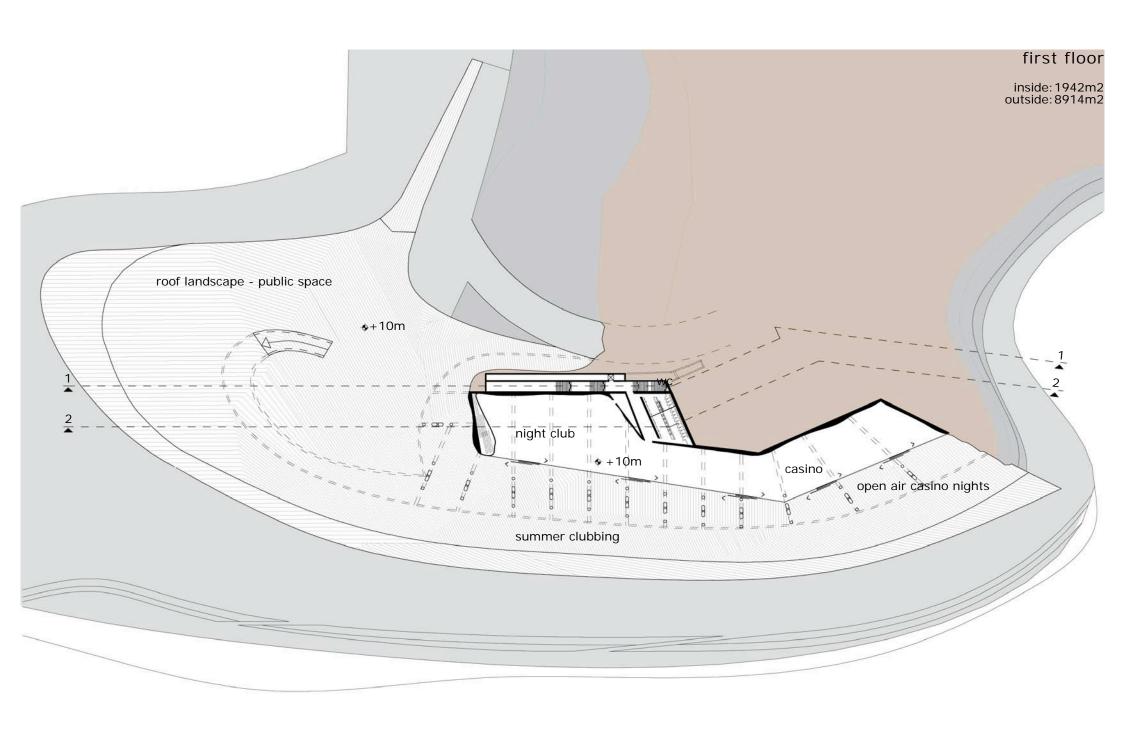


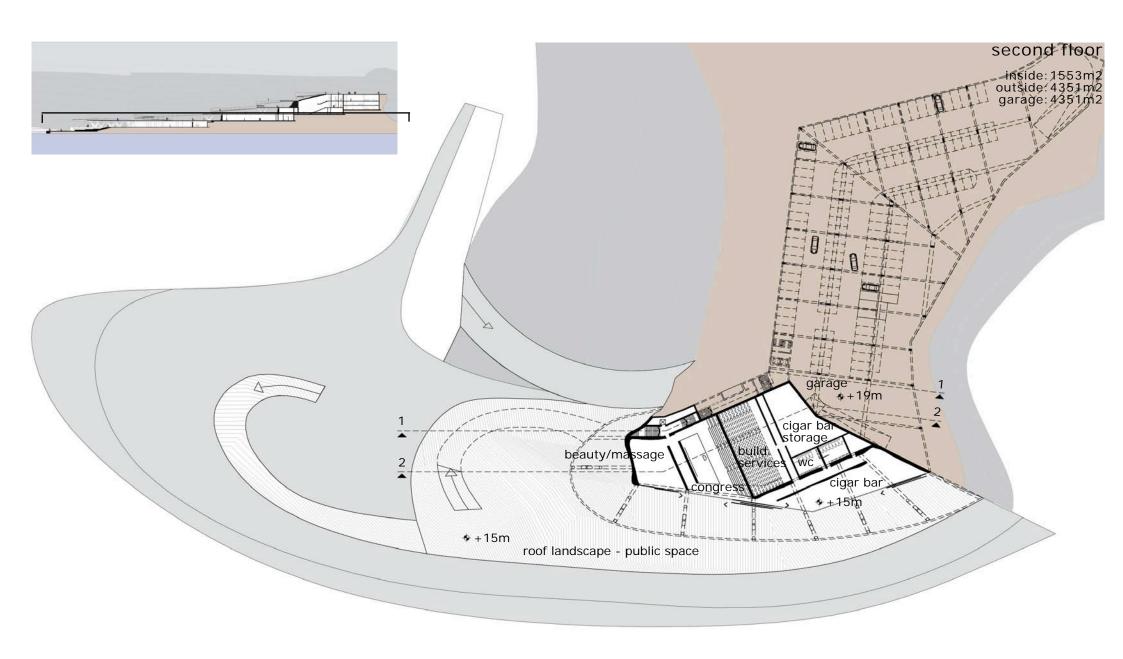


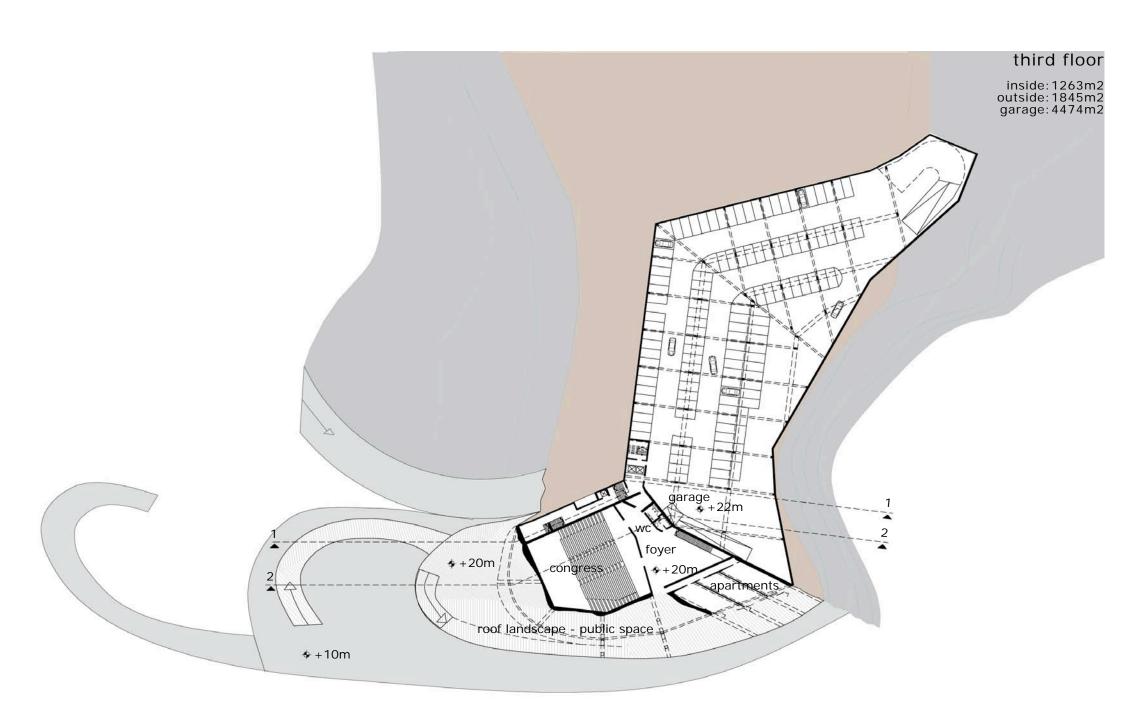


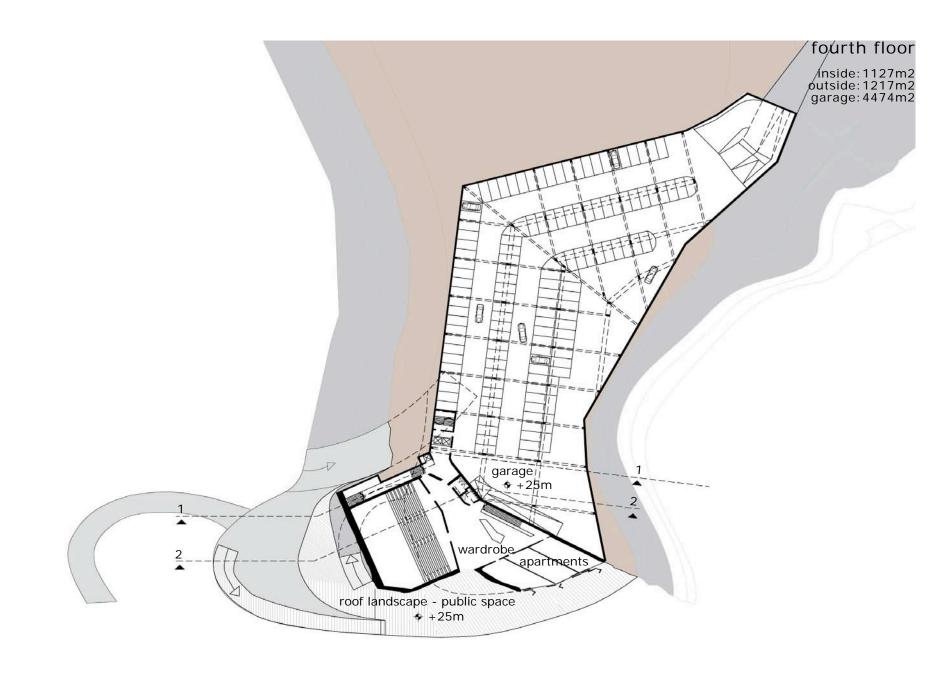


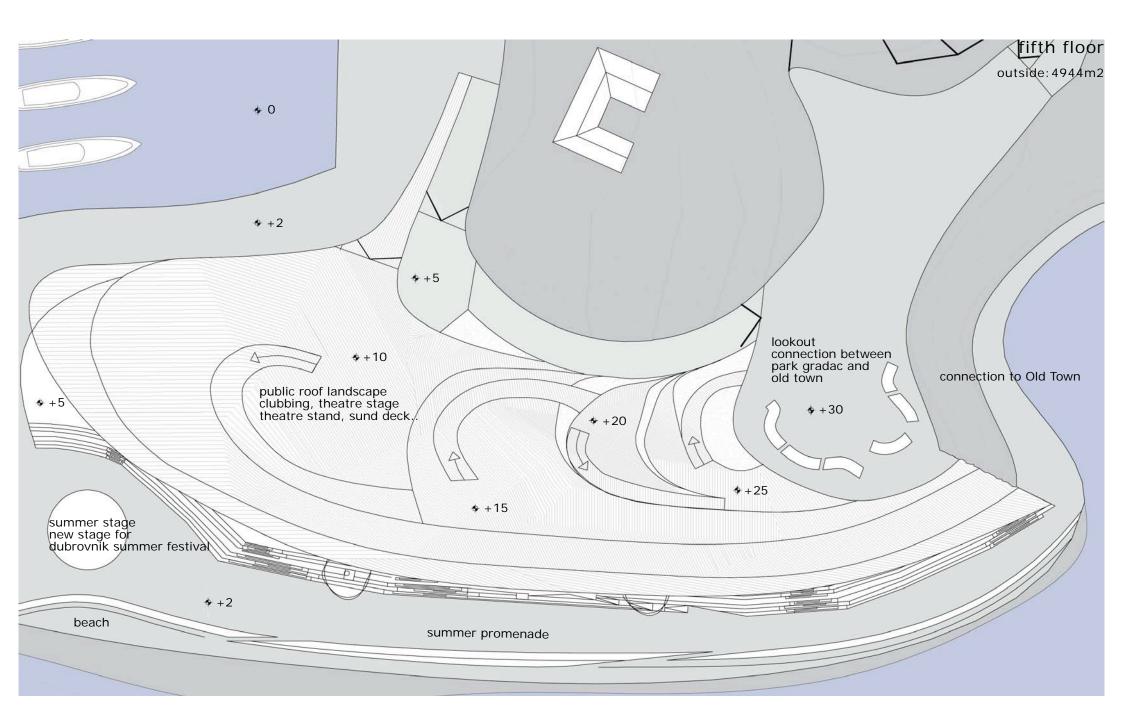


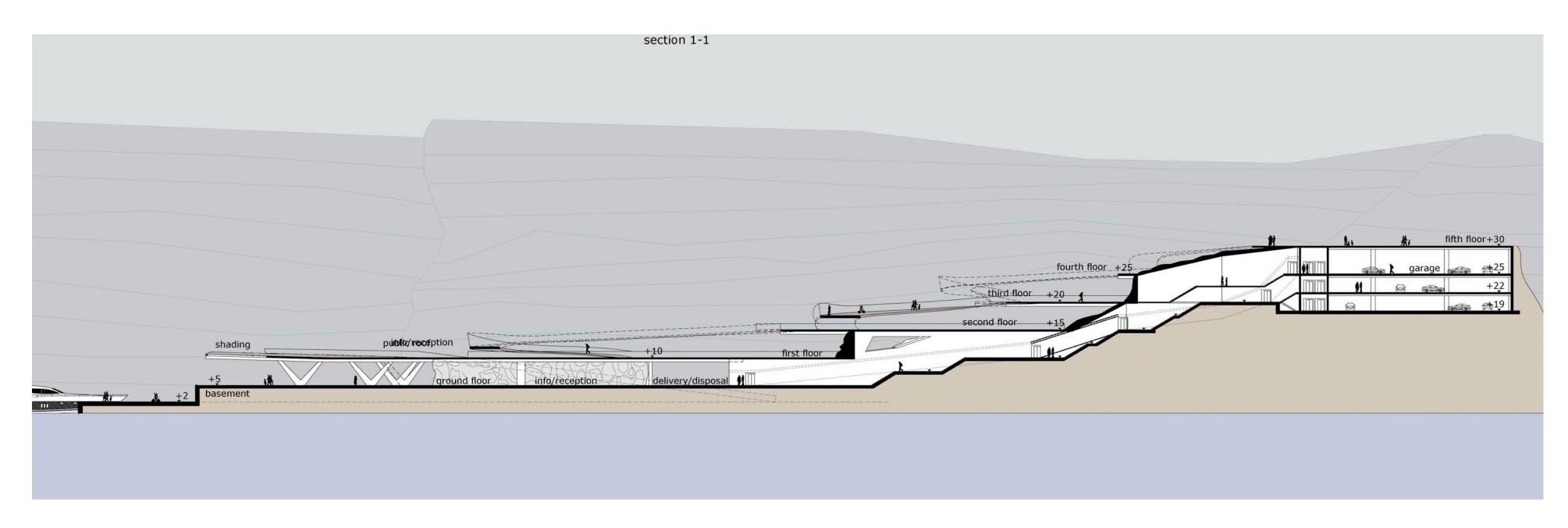


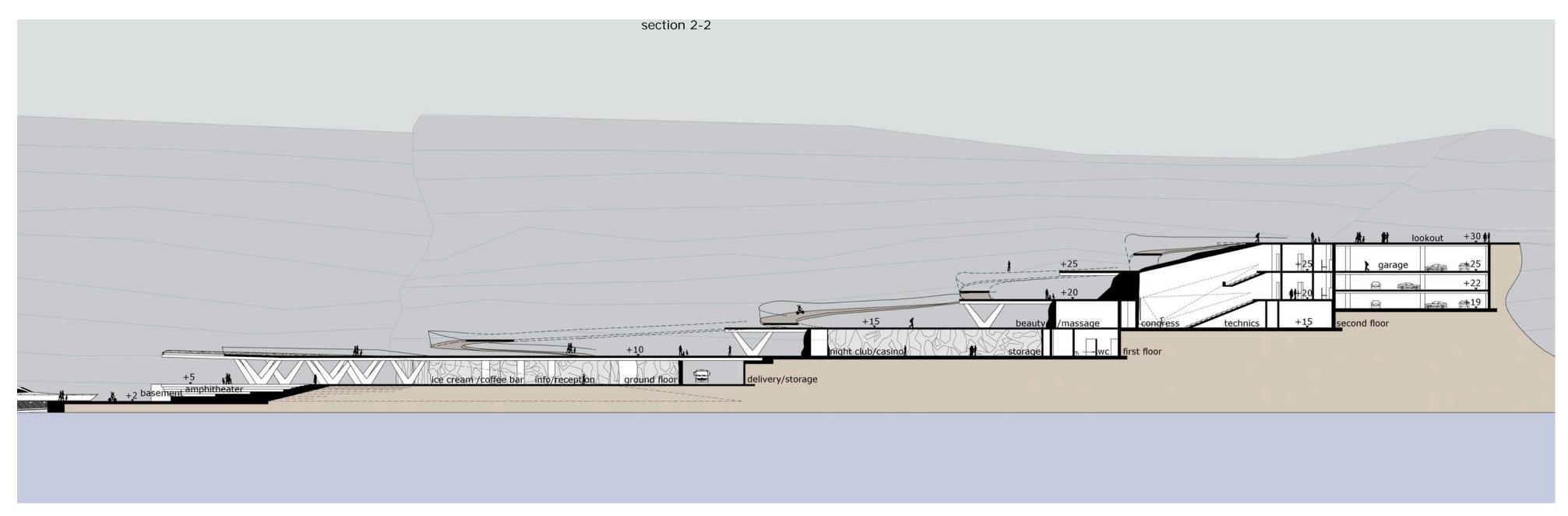


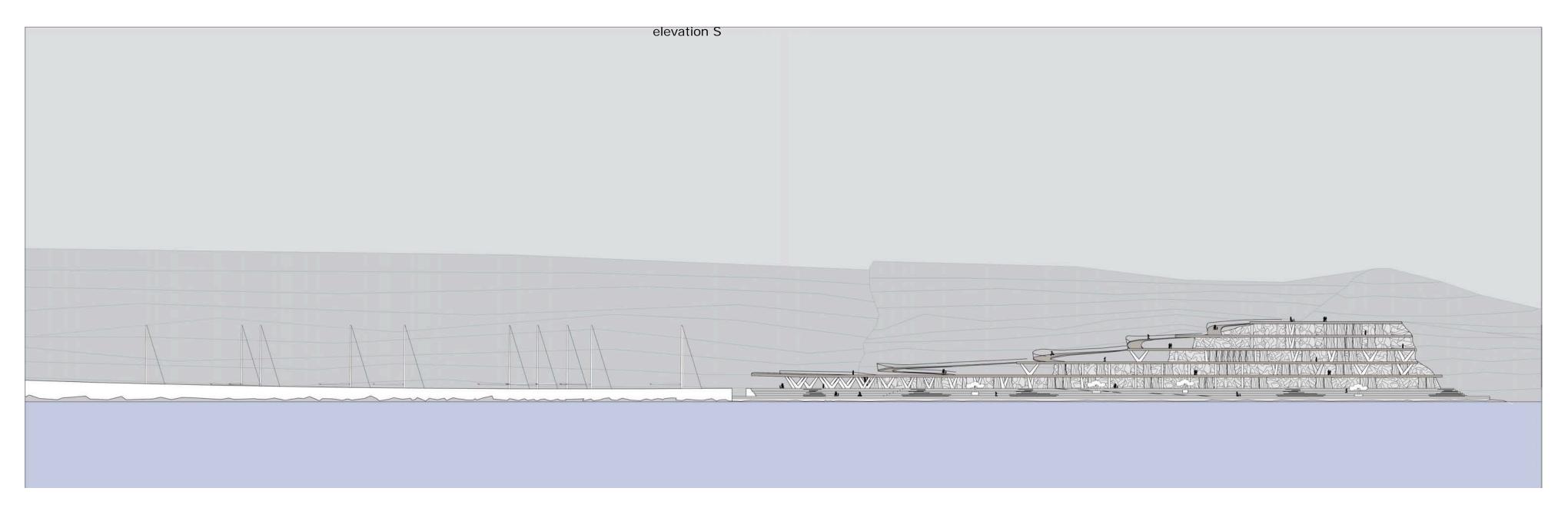


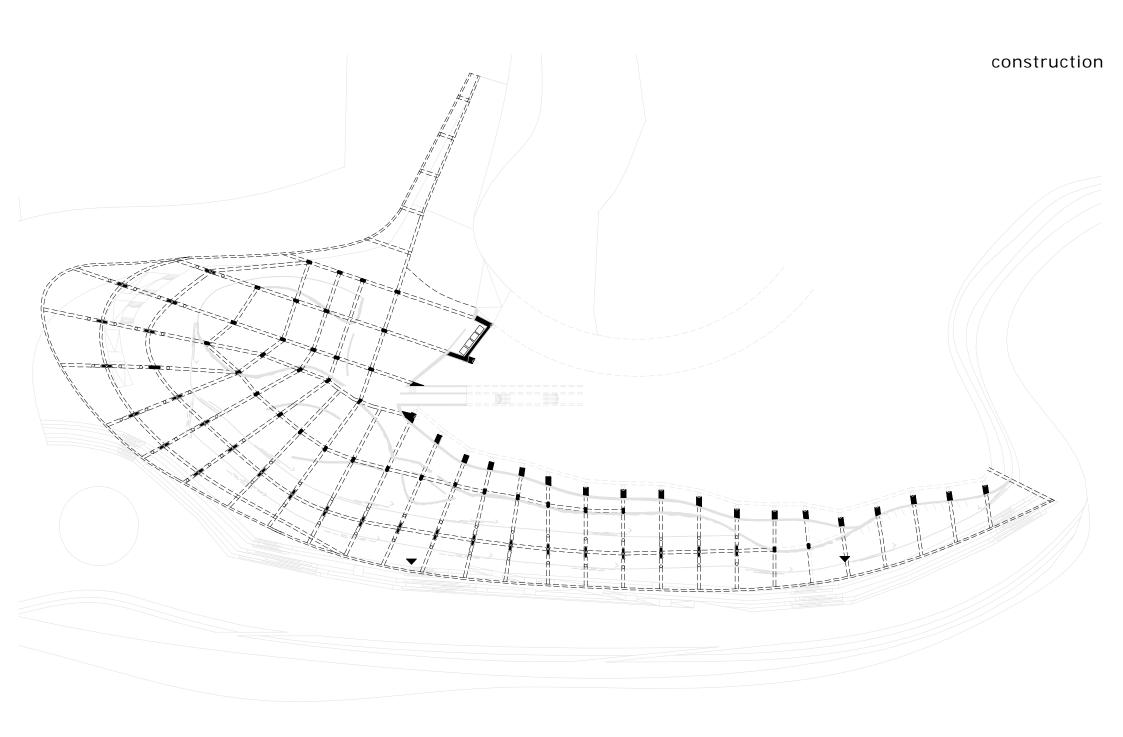












Surrounding

Sea View

Land View

Landscape

Night

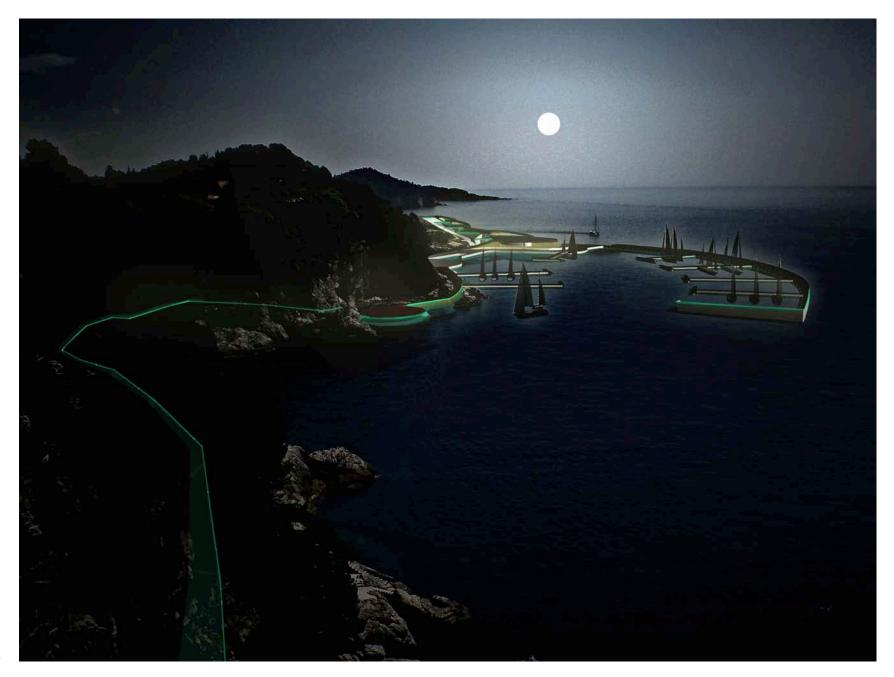
VISUALISATION











Bibliography

Internet References

Illustration References

REFERENCES

#### **Bibliography**

Yachting on the European part of the Mediteranean, Croatian Paneuropean Union, Branch in Split /T. Lukovic/Redak doo/ Split 2002

Conditions of nutical Tourism in Croatia, referat na kongresu 'First european yacht torism congress'/T. Lukovic/Megagraf doo/Rogoznica 2002

Medjunarodna ekonomija i turizam/I. Vukovic/Dalmatina d.o.o./Zagreb 2000

Marketing-koncepcija razvoja nautickog turizma Hrvatske/T. Lukovic/Abel doo Split/Split 1995

Izvjesce o stanji okolisa u Republici Hrvatskoj/Drzavna uprava za zastitu prirode i okolisa Zagreb/Zagreb 1998

Nauticki turizam/V. Jadresic/Pedagoska akademija Zadar/Zadar 1978

Nauticki turizam i managment marina/J. Samanovic/Visoka pomorska skola u Splitu/Split 2002

Nauticki turizam i upravljanje lukom nautickog turizma/A. Dulcic/Ekokon Split/Split 2002

Nauticki turizam Hrvatske, vlastita naklada Novigrad (istartski)/D. Ivosevic/Novigrad 1995

Luka kao slozen sustav-Rijeka glavna hrvatska luka/J. Bozicevic i grupa autora/Akademija tehnickih znanosti Hrvatske/ Zagreb 1999

Hrvatsko pomorsko pravo/V. Hlaca/Pravni fakultet u Rijeci/Rijeka 2001

Tehnologija i organizacija luka/C. Dundovic i B. Kesic/Pomorski fakultet u Rijeci/Rijeka 2001

Pomorski leksikon/Jugoslavenski leksikografski zavod -Miroslav Krleza Zagreb-/Zagreb 1990

Pomorska enciklopedija/JLZ Miroslav Krleza/Zagreb 1983

Studija Razvoja nautickog turizma DIO II/Urbanisticki institut Hrvatske/Zagreb 1997

Strateski menadzment u pomorskom gospodarstvu 21.stoljeca, Nase more, Pomorski fakultet u Dubrovniku/M. Vukcevic i D. Boskovic/Dubrovnik 2002

Ekonomika i politika zastite okolisa/Ekonomski fakultet u Rijeci/Rijeka 2002

#### Internet references

```
http://www.dubrovnik-festival.hr/Default.aspx?sec=344
http://www.mdf-si.org/eng/index.asp
www.portdubrovnik.hr/Dat/Studija%20Dukic.pdf
http://www.portdubrovnik.hr/?lan=hr&action=luka&kat=114&pdl=103
http://www.meteo-info.hr/meteoclanci/meteoroloska_mjerenja_files/10.jpg
http://www.dubrovnik24.com/hr/vrijeme-dubrovnik/
http://www.bestindubrovnik.com/history/31/default.aspx
http://www.hrvaska.net/hr/nautics_splosno_HR.htm
http://www.aci-club.hr/aci.htm
http://www.marinafrapa.com/
http://www.sailingahead.com/information/history_sailing_I.htm
http://www.boatdesign.net/articles/mast-materials/index.htm
http://www.superyachttimes.com/editorial/33/article/id/287
http://www.showmanagement.com/newsletter/59
http://www.tgr-asia.com/jumeirah-phuket-masterplan.php
http://www.privatsea.com/fleet/locs/
http://www.dubaimarinayachtclub.com/en/index.php?__buffer=true&s=exclusive
http://www.turizaminfo.hr/article.aspx?ar=33&to=22&ma=1&no=22
http://www.mijeneonline.hhi.hr/dubrovnik_mj_e.asp
http://www.igy-mandalina.com/marina/overview/
http://www.marinapreko.com/facilities.html
```

#### Internet references

http://www.britannica.com/EBchecked/topic/469795/pontoon-dock

http://www.nauticexpo.com/cat/marinas-beaconing-floating-docks-dock-pedestals/pontoon-gangways-dock-gates-YA-

1220.html

http://gcaptain.com/maritime/blog/ships-in-concrete-best-maritime-inspired-architecture/

http://www.csmonitor.com/2002/0314/p18s01-stin.html

http://www.marinayachting.it/

http://www.yachtmarin.com/marina/

http://www.victoriainternationalmarina.ca/research\_development

http://www.solarishotelsresort.com/marina.asp

http://www.yhg-anguilla.com/marina.html

#### Illustration references

- Fig. 01 http://www.destinacije.com/Slike/Wallpapers/2002/Plitvicka\_Jezera\_2.JPG
- Fig. 02 http://www.croatia-nudistsbeaches-scubadiving.com/images/motovun\_big.jpg
- Fig. 03 http://www.nekretnine365.com/nekretnine-hrvatska/images/listing\_photos/1467\_dugi\_otok\_kornati0.jpg
- Fig. 04 http://www.croatianhistory.net/gif/alka.jpg
- Fig. 05 http://www.dubrovnik-secrets.com/ds/images/img\_events\_festival\_opening\_436x327.jpg
- Fig. 06 http://www.mdf-si.org/eng/index.asp
- Fig. 07, 08, 09 http://www.panoramio.com/
- Fig. 10, 11, 12 Neufert, Elementi arhitektonskog projektiranja, Grafički zavod Hrvatske, Zagreb 2002
- Fig. 13, 14, 15, 16 Google Earth
- Fig. 17, 18 Google Maps
- Fig. 19, 20 http://gallery.dubrovnikbedandbreakfast.com/photos/dubrovnik-warships.jpg
- Fig. 21, 22, 23, 24, 25 www.portdubrovnik.hr/Dat/Studija%20Dukic.pdf
- Fig. 26 http://www.portdubrovnik.hr/?lan=hr&action=luka&kat=114&pdl=103
- Fig. 27, 28, 29, 30, 31, 32, 33, 34 General urbanistic plan of Dubrovnik
- Fig. 35 http://www4.dubrovnik-festival.hr/default.asp?ru=2231&sid=&akcija=&jezik=2
- Fig. 36, 37, 38 http://www.dubrovnik-festival.hr/lgs.axd?t=16&id=86439
- Fig. 39 http://www.meteo-info.hr/meteoclanci/meteoroloska\_mjerenja\_files/10.jpg

# Thank YOU all!!!

