

# LANDSCAPE DAYS



## **International Symposium**

The future of the historic urban landscape of  
Dubrovnik, UNESCO World Heritage  
new methodologies for urban conservation in the context of development  
management

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*draft*

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## INSTEAD OF INTRODUCTION

Recent years have seen more and more efforts on the part of UNESCO to perceive the world that is constantly becoming complex, which is then reflected on the situation in space, due to the merciless expansion of capital. The space is being changed while we watch it, endangering the protected world heritage. That is why the efforts are aimed at prevention, not on action after degradation. UNESCO's Advisory Committee, ICOMOS (International Council on Monuments and Sites) brings out guidelines for HERITAGE IMPACT ASSESSMENT – HIA for World Cultural heritage places. The term of landscape, according to the European Landscape Convention applies to the entire space and comprises natural, rural, urban and suburban areas, as well as inland waters and the seas. The space is no longer considered partially, but as a whole – including urbanized areas, building complexes under protection with their environment. This applies to the world heritage to which Dubrovnik belongs with its immediate surroundings and its wide cultivated environment.

It is both necessary and urgent to start applying new methods in the protection and management of the natural and cultural heritage (with an accent on the legal framework).

However, the Nestor of our Art history, Cvito Fisković, told me long ago that any law is useless, unless heritage is written in the heart!

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## A SUMMARIZED OVERVIEW OF THE HISTORY OF DUBROVNIK AND THE DUBROVNIK REPUBLIC

City of Dubrovnik, a Late Medieval planned city, located in the south part of Croatian coastline has preserved a character of an exclusive urban entity defined by its city walls and its historical nucleus located at the foot of Mount Srđ, its natural defence, which took up a significant post in the history of urban building. Its history evolved under conditions given by its geographical and geopolitical location on the southern coast of Eastern Adriatic on the dividing lines of the Mediterranean space and the Balkan Peninsula, on the frontier between the opposed civilizational forces. The uniqueness of Dubrovnik is manifested in the skill and successfulness of diplomatic art of safeguarding their freedom and independence and continuous striving towards the political individuality of its own, balancing amidst powerful political interests and worlds - Turkish and Christian which surrounded it, its political protection and economical concessions on both sides. Based upon existential foundations of seamanship and trade, the commune in the first place and an organized independent aristocratic state, the Dubrovnik Republic, at its peak (15th/16th c.) was counted among the most developed states of the then world.

Material traces from the Pre-historical and Hellenistic period testify to the continuity of life in Dubrovnik, as well as a number of archaeological and numismatic finds from the period of the Roman Antiquity. The remains of ancient and Late Antiquity fragments, discovered in the underwater of the City port, are a proof of an existing port and a settlement already in the 1st century B.C. The early Christian spoliae unearthed on the southern edge of the town and the architectural structure of a sacral building from the Late Antiquity in the lower layers of the Pre-Romanesque church of the Transfiguration (Sigurata church), confirm the continuity of a Byzantine settlement in the 5th and 6th centuries; the Episcopal complex located to the northeast from Kaštel, on the site of the present Baroque cathedral on the Bunić square testifies to the significance and dynamics of a developing settlement. The existence of an Early medieval cathedral, a three-apse basilica with its narthex and a baptistery was identified there by an archaeological procedure.

Strengthening of Dubrovnik ran parallel with the decline of economical and political power of the neighbouring ancient Epidaurum (Cavtat). In the beginning of the 7th century Dubrovnik gradually took over the role of a centre from Epidaurum thanks to its protected peninsular location even before the incursions of Slavs and Avars. Legendary data on refugees, who upon the fall of Epidaurum escaped to Dubrovnik corroborate the legacy of Epidaurum. The Commune of

Dubrovnik based its political identity and legitimized its ecclesiastical and territorial aspirations.

Dubrovnik continued developing on its Roman and Croatian-Slavic ethnic background under a centuries old Byzantine protection. In the course of the Middle Ages the City owed its economical growth to the shipping, intermediary trade and art of diplomacy, but also to the military forces. It was as early as in 782 A.D. that the construction of Dubrovnik shipyard for war ships was mentioned. As a fortified city encompassed by walls Dubrovnik had resisted in a fifteen month Arab siege in 866/7. A short while afterwards Dubrovnik participated in transportation of Croatian military forces, which along with Byzantine and Frankish assistance liberated the City of Bari from Arabs. During the 11th century the Dubrovnik fleet was in service of Byzantium and Croatian kings, while in 1032 once again they vanquished the Arabs who had broken into the Adriatic.

Dubrovnik has been an important trading and political centre on the Eastern Adriatic coast already from the 10th century. In the beginning it comprised a peninsula with sexteria Kaštel, St Peter and Pustijerna. Due to the gradual rise of the sea level (about 3 m in 2000 years) in the coming centuries the space in between was continuously filled up in order to have the city extended to the north and west, and thereupon a planned building towards mount Srđ slopes in the area of Prijeko was continued. At the end of the 13th century the City perimeter was definitely encompassed by the walls. A new urban grid was defined after the great fire in 1296 in accordance with major 13th century regulations, not only in compliance with the Statute of Dubrovnik, but also adhering to the intense period of European medieval city building of the century.

Economic and political growth of Dubrovnik had an official background. At the end of the 10th century Pope Gregory V upgraded the Dubrovnik diocese to the rank of archdiocese and the metropolitan seat with the diocese of Kotor, Bar and Ulcinj with suffragan bishops . It was in 1022 that Pope Benedict VIII confirmed the jurisdiction of archbishop of Dubrovnik (this is the oldest document from the Archives, the third most important in Europe). In one of a sequence of conflicts against Venetians, which took place in 972 the city secured St Blaise as its patron saint. His figure has been sculpted, carved, painted and embroidered on the banners ever since, thus becoming the symbol of the Commune; later on, during its political independence, the veneration of St Blaise became the cult of its statehood and so the grey-bearded bishop became the most powerful defender and protector of "libertas"(the Feast of St Blaise of the City of Dubrovnik is inscribed on the UNESCO's Representative List of Intangible World Cultural Heritage).

During the 12th century Dubrovnik entered into a number of trading and political treaties with other towns- ports on the Mediterranean, as well as with the rulers of nearby regions, who ensured them free trade and navigation under certain concessions. The first treaty was signed with the city of Molfetta (1148), some time later with Pisa (1164), Ravenna (1188) and Ancona (1199). Citizens of Dubrovnik were approved privileges in Bosnia in 1189 by Kulin ban's charter,

while a document on free trade throughout Byzantium and Bulgaria was issued by Byzantine emperor Angelos .

The charter of special importance on rights of free trade across Bulgaria was issued by emperor Ivan Asen II in 1230, by which the citizens of Dubrovnik reinforced their trading monopoly in the wider hinterland of the Balkans, and ensured boosting of their overland trade which went along with development of maritime affairs. A number of trading treaties testify to the fact that Dubrovnik already traded with Egypt, Tunisia and other regions of North Africa during the 13th century.

During the second half of the 13th and the beginning of the 14th century citizens of Dubrovnik appointed their first consuls who took care of organization of trade in their colonies in the Balkans. Merchants of Dubrovnik were intermediary of various kinds of textiles, timber, cattle, livestock and agricultural products, salt, minerals, silver, gold and other commodities. Due to the growth of trade credits and financial transactions Dubrovnik started minting coins in its own mint (The Sponza Palace) since 1337. In those days the City had a large Fontik (granary), and a naval Arsenal, its shipyard which was also built in the port. Further development was slowed down to certain extent due to great epidemics of plague in 1348, which has almost reduced its population by half.

Likewise some other medieval cities, Dubrovnik has been systematically advancing its independent administrative and judiciary institutions and extended its communal autonomy. The Statute was enacted in 1272, the basic Legal Code in eight books as an evidence of legal norms of life - in which the most important segments of life in the commune were codified, ( administration, family law, as well as provisions governing inheritance, maritime law, craftsmanship, urban planning and building, land ownership in terms of agrarian relations...) Designing of a communal society was followed by its disintegration in which the town patriciate (nobiles) achieved a leading position based upon acquired wealth and reputation in relation to the commoners (populus). The power in the councils of the commune was taken over at the end of the 13th century by nobility of Dubrovnik, and the class group differentiation was also reinforced by the law and "closing" of the Great Council in 1332.

Upon the defeat in conflict with Croatian and Hungarian king Louis I, Venice was forced to give up the entire eastern shore of Adriatic due to the Peace Treaty of Zadar in 1358. It was then that Dubrovnik was the only Croatian city on the coastline which was permanently set free from Venetian domination, since the representatives of Dubrovnik as diplomats skilfully succeeded to procure a special agreement on the status of their city by having ensured the basis for its autonomy and prosperity in general.

The turning point in the history of Dubrovnik was in 1358 and for the city itself one of the wisest political acquisitions. Dubrovnik gained the protection of Hungarian and Croatian crown and became a part of the Kingdom of Dalmatia and Croatia under the Treaty of Višegrad signed with Louis I of Hungary; Dubrovnik was guaranteed independence, territorial integrity of its borders, freedom of trade and neutrality in case of war.

Having acquired all crucial interior elements of power of an independent state, Dubrovnik gained its full political independence within a new national and legal framework, and managed to retain it until Napoleonic campaign in the beginning of the 19th century.

Having gained all attributes of a statehood such as: territory, citizenship, currency, coat of arms, seal, banner, autonomous administration, judiciary and legislation, its own diplomatic missions and foreign policy - the Commune of Dubrovnik began to be called a republic (Respublica Ragusina). Then its territory comprised 1092 km<sup>2</sup>. There were between 5000-10000 inhabitants living in the city, while 25000 - 85000 inhabitants resided throughout the entire territory of the Republic, depending on market situation, outbreak of epidemics and other demographic circumstances.

The Dubrovnik Republic was an unmistakably Catholic state, however a high level of tolerance towards persons of other denominations like Jewish, Muslim and Orthodox was present, but with differences in treatment.

Political power in this small aristocratic state, the City and its Republic, was in the hands of the Great Council (Consilium maius) - which was an assembly of noblemen of age. It was the body which enacted laws, resolved national and legal issues and elected all state officials. Consilium rogatorum, i.e. the Senate, operated as a political body which defined guidelines and drew concrete moves dealing with foreign and interior policy. The Small Council (Consilium minus) was an executive body, which dealt with interior communal affairs. Knez - The Rector presided over all the councils representing the state sovereignty by his function. Due to his impersonal, symbolical role (St. Blaise was the only "ruler"), Rector's tenure of office varied between one year, more than six months up to twenty days, until it became stabilized for a month. Ramified administration in extraurban areas pursued legality and order of the state centre, by means of appropriate and meaningful organization, through its capillary system of countships and captaincies.

The strongest economic, political and cultural rise of the Republic proceeded at the beginning of the 15th century. It acquired its new face thanks to the wealth accumulated in the previous period. We can read the Decision of 1406 stipulating that the rest of all 150 wooden houses which remained on the communal land were to be replaced by the new houses built in stone, as an instrument of social policy, in accordance with its urban, communal, health-epidemiological, hygienic and sanitary, as well as social-care system. Doctor's service was introduced in 1301, the pharmacy existed from 1317, almshouses were established since 1347, the first lazaretto (quarantine) was introduced in 1377 while the first orphanage /house for the foundlings was founded in 1432, first public school in 1435, and in 1416 the slave trade was abolished.

Along with building grain stores (Rupe granary, dry wells hewn from the living rocks), paving of streets by stone, organized prevention of fire and fire-fighting, the communal infrastructure was exquisitely characterized by construction of a sewage system, in particular construction of an imposing public aqueduct from 1436-1438, through which the fresh spring water was conveyed to the city from Šumet within the distance of 16 km, reflected a high level standard of a regulated community.



Urban planning of the City of Dubrovnik was based on rational decisions and a brave vision, planned building with an imperative of regularity and order as a guarantee of social order; establishment of orderly building plots and orthogonal system of streets with defined public and housing facilities, built on functionality and moderation, refinement of plastic ornamentation and restraint (which was a characteristic of a mentality in the first place).

Displaying the art of positioning their representative public edifices, such as: the Rector's Palace, the Cathedral, the Church of St Blaise, the City Hall, the Customs House and public space of the Luža square, dominants of the City were created to which all other buildings were subordinated. The city extension flanked by both, already existing monasteries, the Dominican monastery in the east, and the Franciscan complex to the west, tracing of the Placa, its main street oriented east-west, leading from the Pile Gate to the Luža square, the heart of the public life, by completing all planned street lines of the older southern and more recent northern part, perpendicular to the Placa, thus connecting its two hemispheres, the principal urban frameworks of the city were established.

Planned construction of public, sacral buildings and housing and communal utilities was broadly completed at the end of the 15th century, connecting the East and West city gates, with two public fountains the Great and the Small Onofrio's fountains - Besides the two previously mentioned large monastery complexes and former nine nunneries, twenty located churches and chapels, blocks of the city tissue define structure of housing - in the range from a modest type of a town house on the communal land plot, up to plot connected in blocks, multiplied land parcelling - zoning, what brought about the high rise buildings in a cramped space and formation of a representative architecture in the Renaissance such as the house-palace (Pustjerna) style characteristics in a range from the Gothic and (later on in the Baroque) in the continuity of housing function to this day.

According to the statement of Philip de Diversis a contemporary, rector of Grammar school, a foreigner in Dubrovnik in the first decades of the 15th century "houses looked like as if they were built by the same builder and as if erected at the same time". In this statement a sequence of Plato's, Alberti's and finally Kotruljević's thoughts are revealed "how nice it is for a town that has an aspect of a house, and the house the aspect of the town". Dubrovnik was built as a common house of its citizens indeed, in the spirit of togetherness, thriftiness and a feeling for *m e a s u r e*: symbolizing ideals of the community – *p e a c e* and *h a r m o n y* – being the most characteristic words in Dubrovnik .

Dubrovnik heyday began in the age of the Ottoman incursions. In the beginning of the 15th century the Republic, as an affirmed maritime and trading power was given special privileges by king Sigismund. The Basel Church Council allowed to the people of Dubrovnik *Privilegium navigationis ad partes Orientis* - exclusive rights to trade in all countries under Islamic rulers. Thus Dubrovnik became one of the most important trading intermediary between East and West. Having envisaged the significance of the Ottoman conquests, citizens of Dubrovnik have already established a tributary relation in 1458 through which

they ensured their monopoly and freedom of trade acquired earlier. From 1478 their annual tribute (harač) which included a lump customs fee, became steady in the amount as high as 12.500 ducats.

Following the growth of its merchant fleet the Republic established more than twenty Consulates in the 15th century, mostly in the ports on the Apennine peninsula and in Sicily. Manufactures were specially developed in Dubrovnik for making and dyeing of fabrics, moreover it was a strong textile industry, while goldsmiths, stonemasons, masons, carpenters and many other crafts flourished altogether.

Economic strength has been emerging from their traditional permanent activities: monopoly of salt trade from the salt pans of Ston with lands in the Balkan hinterland, as well as its maritime and trading expansion, in addition to the intermediary overseas trade with mineral products from Bosnia and Serbia, mainly silver – and money earned for buying the Catalan wool and thus the previously mentioned textile industry sprang up. Although cloth manufacturing production successfully progressed only during the first half of the 15th century with a great demand for silver and lead, both branches will have essentially contributed to the fast and substantial strengthening of material forces, which will through their general trading activities make the 16th century the age of the greatest economic prosperity of the Republic.

In 1500 the Dubrovnik Republic had a BDP of approximately. 900,00 USD per capita - or eg. It was 20% higher than in Switzerland (742,00 USD per capita), 25% higher than France (727,00), or England (714,00), 30% higher than Spain (698,00) or Sweden (695,00). It was lower than in the Venetian Republic (1.100,00) only, and almost twice as much higher than in other parts of Croatia (490,00 USD per capita).

Dominant growth of their city took place during the 15th and 16th centuries, in the so called "golden age of Dubrovnik", when the internationally recognized state of St Blaise rounded up its territory: from Klek in the west to Sutorina in the east and reached an envious urban - communal and extraurban European standard of a regulated community, rating among the most developed countries of the then world. Having earned wealth from trade, sown their capital throughout the entire Mediterranean, they created a network of its routes, trading enclaves and colonies in the hinterland, diplomatic missions and Consular officials (more than fifty) – people of Dubrovnik created a basis which they were building up wisely in all spheres of life, such as: politics, brilliant diplomacy, intelligence service, architecture, science and art.

Wealth and wisdom were the two main components of their freedom, which have enabled to make use of a fortunate web of historical circumstances formed Dubrovnik an intermediary between East and West, having enabled to a small state (which was permanently on the verge of anxiety for its own survival) to maintain its independence between the two giants – the Venetian Republic (its severe rival) and the Ottoman Empire. We cannot help but wonder how come that the Turkish superpower spared such a small "ivory" miniature, while it has so easily erased the map of the Balkans just behind Dubrovnik's back. Turkish giant needed (intelligence) services from a small "ant", and it was exactly Dubrovnik that was unveiling Turkish trading continent to Europe which used

to descend to the City to buy luxurious fabrics and fine goods. In a collision between Turkish and Catholic interests in the Mediterranean, the intermediary Catholic Dubrovnik was protected from both sides.

The city walls and its fortresses emerged on its wealth and wisdom, an imposing fortification complex encompassing the entire city nucleus 1940 m long and defined its circumference, regulated by a plan from the 13th up to the 17th century. The city walls are composed of the main city wall, 16 towers, 3 fortresses, 6 bastions, 2 angular forts, 3 bulwarks with a number of turrets, two forefront fortresses, Kaše breakwave and the two city drawbridges. The City is defended by the Lovrjenac fortress in the west, and the Revelin fortress in the east. The mighty fortress of Minčeta has always been standing out (the oldest casemate fortress in Europe, and Fort Bokar, St John's fortress which together with Kaše breakwave defined the City port, where shipyards were located. The walls were built by the most excellent local and foreign builders, while the entire fortification system of Dubrovnik is one of the best preserved in Europe.

Based on riches and wisdom, guided by their motto "to live with everyone in peace" and in a cosmopolitan spiritual atmosphere of receptive and creative flows, these significant cultural and spiritual, intellectual and artistic values were created. Writers Marin Držić and Ivan Gundulić, scientists Ruđer Bošković and Marin Getaldić, Benedikt Kotruljević, the founder of the double entry book-keeping, composer Luka Sorkočević and many others were creating in such an atmosphere.

The disastrous earthquake on 6th April, 1667 was not only a major turning point in the history of Dubrovnik, but it also jeopardized the survival of the city itself. After the earthquake "trešnja" (in the vernacular) which killed its 1200 inhabitants, and demolished the City which was caught by fire that devastated its remains. Aside from the city walls, the Sponza Palace, the Rector's Palace, and a few churches and houses, Dubrovnik was turned into ruins, and the island of Lopud was also severely devastated. Hence, some thirty years fight for survival followed, in the course of which the Republic overcame the most difficult period of its history due to the perseverance and self-sacrifice of all social classes and managed to overcome the most difficult period in its history. Having addressed for help to all European states, its traditional allies came to the rescue: the Pope, Spain, Austria, the Kingdom of Naples and the small Republic of Lucca.

The City has been gradually restored on its preserved medieval grid, while the Baroque morphological and physical spirit and form was given to the city quarters by interventions during the 17th and 18th centuries. The strongest urban intervention into the city tissue, along with the construction of a new church of St Blaise, the emergence of the Gundulić square and house design on the Stradun, was the erection of the Jesuit complex with its monumental Baroque staircase.

Upon the restoration of the city in the aftermath of the earthquake Dubrovnik rose anew in the 18th century creating a large fleet of merchant vessels, while the number of their consular officials exceeded eighty persons. In the nineties

of the 18th century it intended to adapt to the events evolving in France, acquire confidence of its new civil government, and at the same time suppress all revolutionary and democratic ideas in its own milieu. Unsuccessfully. After the fall of the Venetian Republic in 1797 the strategically important area of the Croatian coast was a new target of Napoleonic conquests. In that period Dubrovnik was firstly converted into a scene of diplomatic, and military conflicts thereupon. Facing the danger of Russian overrun, the City surrendered to the French troupes on 27th May, 1806; the city was under siege right away, the French fought against Russians and Montenegrins, ransacking and devastations took place... Damage estimates from devastations amounted in 9 million Dubrovnik ducats! Russians and Montenegrins were defeated by Marshal Marmont and thus the power in Dubrovnik was taken over by the French. The Dubrovnik Republic was totally exhausted by enormous French contributions and taxes levied for the maintenance of their military apparatus. Its fleet was destroyed or seized in the ports of the Mediterranean, trade discontinued, occupation has entirely destroyed Dubrovnik in the proportions of the Great earthquake in 1667.

The Senate was dissolved without Napoleon's knowledge (who had great plans with Dubrovnik) by an order of Marmont on 31st January, 1808 (needless to say, with his subsequent approval ) and Dubrovnik Republic and its independence was abolished by a decree.

After the abolition of the Republic in 1808, the area of Dubrovnik with the Bay of Kotor was submitted to Napoleonic Italian Viceroyalty , and from 1810 until 1814 it was integrated into the territory of Illyrian Provinces. By the decisions of the Congress of Vienna in 1815 the Ragusan Republic ceased to exist in formal-legal terms, and its territory fell to the Habsburg Monarchy.

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There has never been on the shores of the Mediterranean in the past, nor does exist nowadays such an entity as Dubrovnik and its Republic was, which has generated a mighty merchant fleet, in proportion to its small territory and a modest number of inhabitants, developed such strong trading relations and established such a number of consular and diplomatic missions in different states on the Mediterranean, and at the same time peacemaking was pursued, good cooperation with its neighbours and all others, and neutrality in international conflicts were promoted. In this way the state of Dubrovnik, existing as a recognized member of the contemporary international community for more than 450 years – was and has remained a significant and an interesting phenomenon in European history.

Should we add to this the very position of the state of Dubrovnik within the framework of the international community, its wise and meaningful conduct within its own boundaries, then some feats such as urbanizing its population and territory that stood out; and that was organizing a hundred of economic seats throughout its entire territory. Certainly, all those seats were not on equal quality level, but each one in its own way has reflected its belonging to the centre – to the City – as an expression of “ a small measure” in accordance with urban planning of its capital, as a part of its definition. The strength of the

historic Dubrovnik, regardless how small it was, was reflected in the fact that it succeeded to emboss the symbolical image of its order across the entire width of its territory.

This miraculous City, the only one on the Croatian coast, which has during the Middle Ages, grown into a true state - the Republic, that has survived even several years longer than Venice, and was also abolished by Napoleon, was one of the longest duration and most reasonable political entities on our soil. It is exactly there where Jacob Burckhardt's notion "The State as a Work of Art" was realized.



## POSITION IN THE ENVIRONMENT (GEOSTRATEGIC LOCATION OF DUBROVNIK)

The City of Dubrovnik, the administrative and economic seat of the Dubrovnik and Neretva County, and also the seat of the Dubrovnik Republic, developed on a sea cliff, on the East coast of the Mediterranean, where a series of islands of the Eastern Adriatic archipelago cease to exist and the open sea starts. It is placed on an exquisite favourable geographic location which has enabled its position as an inevitable intersection of maritime and land routes. The Island of Lokrum has protected a sandy cove, of a suitable location for protection of the port against breaking waves, while Mount Srđ in the north was a natural protection for the sturdy rock (peninsula) against winds from the south, as well as an abundance of water sources, have offered safety and a refuge to the immigrants. Due to a good land configuration in the hinterland, and mild saddles across the Dinaric relief barrier, Dubrovnik has very quickly become a link between the mainland and the sea, the inland of the Balkans and the Mediterranean.

All these conveniences mentioned which were offered by the site of the town, have been decisive in the selection of a place of habitation from the Prehistoric period, rendering a creation of a settlement of an urban type possible, with some minor building interventions. Additional factors are, undoubtedly, some archaeological finds of water sources (wells-puči), later an exclusive east port with the Island of Lokrum, its natural breakwave, Gruško and Gospino field, fertile areas of the present area of Lapad and Kono, including the fertile slopes at the foot of Mount Srđ and Višnjica, while the possibilities of using the Bay of Lapad and Gruž as a dock should not be rejected.

### **About the strategic location of Dubrovnik**

Placed in the beginning of the middle part of the navigation route, of the East Adriatic, in a place wherefrom the southern series of Dalmatian islands and the open sea begins, such an open expanse was a great threat for attackers, since the wind and the sea could have thrown them against rocks, what has given protection to the town. Standing in such a location, the town had an entire control over passing vessels, while in case of necessity it could make interventions with its galleys. The port of the town offered a complete protection from bad weather, from pirates and any other attackers and persecutors, it is a logical that the port could be a centre and an initial point of the town.

However, Dubrovnik, has always had an important strategic location, what is shown by the fact that many rulers in the more recent history (e.g., Austrian), but also in the times of Napoleon, and in the older period, such as the Byzantine and Venetian, and very possibly even during the Greek and Roman times – wanted to dispose of its space and its port. In his memoirs Marshall Marmont

put in writing about the old Port of Dubrovnik “ Dubrovnik has a special trading port protected by the Island of Lokrum. Imagination cannot conceive a more complete and more beautiful maritime locality” Venice has been a competitor of Dubrovnik in maritime and mainland trade for centuries, always wishing to hamper its development and acquire its port. It was an important strategic point for Venice since Dubrovnik was situated on its long maritime route from Venice towards the Eastern Mediterranean, and the possession of the port of Dubrovnik rendered a shorter connection with its possessions in the Levant possible, but also with Constantinople, the centre of the utmost importance in the maritime traffic.

### **Beginning of the City genesis**

A redout of the beginning of genesis of the town, although not its very core, but of a wider region that has naturally gravitated to it, lacking the first class sources, it has noted artefacts of the Neolithic provenience on several prehistoric sites in the area of Astarea (Močiljska and Vilina Cave in Rijeka dubrovačka), the space of Astarea, the original Dubrovnik territory is “sprinkled” with prehistorical tumuli (Astarea was inhabited in the Neolithic from 3000-2000), especially in the area of Župa dubrovačka: stone mounds-tumuli: Vidovo cemetery above Zavrelje, a hillfort in Čibača called the Mitareva mound.

The prehistoric sites (in accordance with ceramic finds) are the most significant forts on Spilan and Gradac hills.

Žarkovica towards Brgat (Evans): prehistoric tombs

### **History of the area of Astarea with ethnical migrations will be presented in the chapter entitled Growth of Dubrovnik**

followed by:

The Bronze Age:

Ceramics from Vilina and Močiljska Caves above Mokošica, hillfort Čijak in Osojnik;

The Bronze and the Iron Ages:

Župa dubrovačka, Donji Brgat (Zavrtje), mount below Dubac, Čibača- church of St. Mathew (Mačela) typical hillfort ceramics.

The Iron Age :

Prevlaka near Ston (metal sepulchral jewelry, influence from Glasinac), Lokrum (metal jewelry, tombs, fibulae 6th and 5th , century B.C.), Cavtat (Greco-Illyrian helmet, earrings, necklaces from the 6th up to the 1st century B.C.), Čilipi.

Transition period from the Stone Age (Neolithic) into Metal Age (Copper-Neolithic) comprises the first two centuries of the 2nd millennium. Great migrations of Indoeuropean groups on several occasions. Shifting of the neolithic inhabitants towards the Adriatic, mutual infiltrations, formation of the ethnons among Illyrians (Neolithic, Proto-Illyrians, hillforts-around Dubrovnik, Gradac and Mali Gradac, sepulchral remains from the Bronze and the Iron Ages to the east of Bosanka: mounds above Dolić and Gomila, on Rajčevica towards Brgat and Bratitovo - ex-cusite strategic positions!!!)

Illyrians: Pleraei inhabit the area from the Bay of Kotor (Boka Kotorska) to the Neretva River, in the 3rd century B.C. the rule of Ardiaei. The Illyrian state from



Vojuša in Albania to the Neretva River, supremacy in the Adriatic up to the 135 B.C.

This area fell under Rome; the process is finalized at the end of the 1st millennium B.C., until the final fall of the West Roman Empire in the year 47. This process also ends, therefore, at the end of the 1st millennium B.C., it also indicates the end of Prehistory and entry of our region into History.

Epidaurum is the seat of the Roman rule in the surroundings of Dubrovnik, first time mentioned in the year 47 of old era..

The main Roman stronghold in the East Adriatic coast were colonies of the Roman citizens: Epidaurum, Naron, Salona and Jadera.

Our region under a short-lived rule of the Goths.

East Roman, Byzantine emperor Justinian, 535-536 of our era conquered Dalmatia, and leads to the development of the Late Antiquity cultural heritage.

Christianity (The Edict of Milan from 313 A.D.) According to tradition a bishopric was established in Epidaurum in the 3rd century, the first historic data from 530 of our era.

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Systematic archaeological probing within the perimeter of the historical core of Dubrovnik, in the context of the reconstruction of the earthquake damages in 1979 has yielded quite a good deal of archaeological finds relevant to corroborate the thesis about the settlement which had parallelly existed with Illyrian Epidaurum, later on a Roman colony.

List of sites: Cathedral, Sigurata church, breakwave Kaše, Pier Od Ponte, Kneza Damjana Jude Street, church Rosary, church of St. Steven, Od kaštela Street, Ivana Rabljanina Street, Gradac Park.

The oldest report about Dubrovnik/ by a cosmographer from Ravenna

- Epitaurum id est Ragusium-

- Comographia by Anonymous from Ravenna, is one of the most precious geographic sources for the topography of our regions in the Antiquity, in other words, the Late Antiquity, is an anonymous author from Ravenna (we do not know when he lived; he was a priest, the work could have appeared before the second half of the 6th c. /it cannot be younger than 600./ because there was no mention relating to the great penetration of Avars and Slavs and the fall of Roman Dalmatia in the first decades of the 7th century quoting the most elaborate list of names of towns and toponyms which cannot be found in any other source:

Dubrovnik is mentioned by Anonymous under a well known syntagm: Epitaurum id est Ragusium. (Cavat it's Dubrovnik), this is the oldest mention of Dubrovnik which means that Dubrovnik succeeded and replaced old Epidaurum, and Epidaurum did not exist in the 7th century any more as a town. In the communication sense of the word it means that Epidaurum is on the main thoroughfare, with a branch leading from it to Ragusium. -

In context of afore said Dubrovnik is about a series of towns in the south part of Dalmatia – according to Anonymous from Ravenna:

Butua ( Budva)

Decadaron (Kotor)  
Buccinium (Ulcinj)  
Racinium (Risan) – towns which follow after Epidaurum/Ragusium, followed by:  
Asamum (Trebinje)  
Zidion (Mosko next to Trebinje)  
Pardua id est Stamnes (Ston)  
Turres (Mogorjelo next to Čapljina)  
Narona (Vid next to Metković)  
+ toponyms: Biston (Bast near Makarska), Mucru (Makar/Makarska), Gedate (Gata in Poljica), Musaro (a place next to mountain Mosor), Umone (Gračić above Žrnovnica?), Dridum (Drid, west from Trogir), Tabia (hinterland of Šibenik), Impletus (west from Skradin), Decimin (Dicmo), Emanio/ Sarsiteron/ Orba/ Epilentio a series of settlements stretching from Imotski towards Mostar)  
- A series of places which are at the same time station alongside the network of Roman roads, followed by “travel maps” resembling the only preserved Peutinger’s map (Tabula Peutingeriana), see Mithad Kozličić, Cartographic monuments of Croatian Adriatic (selection of maps and panoramas up to the end of the 17th century, Zagreb 1995).

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Environment of Dubrovnik in the beginning of the 7th century, great Migrations, immigration of Slavs, various nations, including the Croats – regions stretching within these borders: between the Drava River and the Sava River, Risnjak, Una and Lička Plješivica - Pannonian Croatia  
From the Raša River (Istria) to the confluence of the River Cetina, from the Adriatic across the middle and lower flow of the Vrbas River to the east toward the River Bosna and the Drina River, stretches Littoral Croatia;  
Neretvians (Pagani) are settled between the mouth of the Cetina River and the lower flow of the Neretva River;  
Zahumljani are settled from the Neretva River to Dubrovnik;  
Travunia and Konavle are located between Dubrovnik and Kotor ;  
Doclea (Duklja) stretched from Kotor to the Bojana River and the mouth of the Drim River;  
Bosnia is assembled in the upper flow of the Bosna River Basin;  
Serbs live in the confluence of the Piva River, the Tara River, upper Drina River and the Lim River.  
Byzantine emperor Constantine Porphyrogenitus says ( and writes) about Croats, Serbs, Neretvane, inhabitants of Zahumlje, Travunia, Konavle and Doclea and separated under Byzantine emperor Mihajlo II (820-829) separated from the Byzantine Empire, became autonomous and independent not obeying anyone.

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10th century (in 949 of new era) Constantine Porphyrogenitus in “De administrando Imperio”, basic text about genesis of Dubrovnik, written from sources,

scholarly and controversially analysed, most authentically by Radoslav Katičić, "Dubrovnik" –Recent Scholarly Comprehension on the Genesis of the City of Dubrovnik.

In line with quotations by Byzantine emperor Porphyrogenitus, Dubrovnik has already been a fortified city with its port and a fleet in the 9th, because it could withstand the siege by the Saracens from sea, for a duration of 15 months, and some time later it took part in the liberation of Bari from the siege of the Saracens.

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The history of Dubrovnik and its commune, later on the Republic, is divided into a dominant scholarly periodization, in line with the fact whose supreme rule (patronage, protectorate) was recognized by the City.

#### **Byzantine period in Dubrovnik up to 1205**

In 535 Byzantine emperor Justinian, action of chasing out East Goths from Dalmatia and Italy, wars were waged about taking over Salona (church councils in 530 and 533), who occupied Byzantium in 535, but they were forced to surrender it to the Goths in 536. It was the same year that Justinian sent Constantian, his army leader to return Salona, on his way from Durrachium the army leader stops in Epidaurum. Goths are forced to abandon Salona. The Byzantines conquered Dalmatia in 537. Epidaurum and the area which became Astartea some time later have remained under suzerainty of Byzantium.

Ever since the early Middle Ages Dubrovnik has been under rule and protection of Byzantium with small interruptions, as many various conquerors wished to subjugate it: Saracens, Venice (temporarily at war against Byzantium in 1171), Normans (from 1185 to 1192), the rulers of Slav states from the hinterland. Dubrovnik recognized the sovereignty of Byzantium up to 1205. The City with its region functioned as the municipal community, like other Dalmatian and littoral communes.

#### **(Venetian period) from 1205 to 1358**

Dubrovnik falls again under Venice. Already in the period of the Venetian rule it has its autonomy and is entitled a commune. The Count is the only person who is a Venetian appointed by Venice, but he takes over the power under the banner of St. Blaise, while Ragusans are in other bodies of the City authorities. A developed municipality (commune), with trade relations in the Mediterranean and in the Black Sea, and overland. Development of political and legal system, codification of the Statutes of the Dubrovnik commune in 1272, adopted by its inhabitants with previous approval of the Great and the Small Council.

#### **First Croatian-Hungarian period from 1358 to 1526**

According to the Treaty of Višegrad Dubrovnik entered Hungarian-Croatian state as a part of Dalmatia, the rule of these kings was nominal, as the Hungarian and Croatian Kingdom guaranteed Dubrovnik independence, inviolability of borders, neutrality in case of war conflicts, freedom of trade. The City could enact laws by itself, organize rule on its state territory, freely negotiate, and es-

establish and maintain diplomatic relations with other states, receive diplomatic and consular representatives, develop trade and maritime affairs.

Golden age of Dubrovnik.

The period of this sovereignty lasted until the defeat of Hungarian and Croatian army in the Battle of Mohács against Turks in 1526.

#### **Turkish (Ottoman) period from 1526 to 1684**

People of Dubrovnik have fully understood the importance and far-reaching Turkish penetration in southeastern and Central Europe, unlike other states of that region managed to establish and maintain good and friendly relations with the Porte. Sultan Bayazed I already allowed Ragusans free trade throughout the Empire in 1390. But, the protection had its price in the tribute, known as haraç (freedom is not expensive as long as it has its price !)

Dubrovnik started paying tribute to Turkey already in 1442 with an obligation to give an annual "gift" composed of silver vessels in the amount of 1000 ducats. That was converted into an annual cash tribute in the amount of 1.500 ducats, followed by 5.000 ducats , 9.000 ducats (in 1471), 10.000 ducats (in 1475), and finally 12.500 ducats ( in 1478), the amount which became established, excluding 15.000 ducats ( in 1480).

In accordance with circumstances the Republic had and accepted a double tribute relationship with: Turkey/Hungarian-Croatian state. Dubrovnik authorities as implied , discontinued its terms of public and international law relationship with the latter in 1358, although the Croatian-Hungarian king will be named their "natural Lord" for a long time , but it will stop paying him tribute! The Dubrovnik Republic will request and realize its new system of multilateral protection for its survival and position as a state under delicate circumstances, first of all from Spain, the leading power of the times in the West Mediterranean, thereupon, a more efficient protection from the Roman Curia, and gradually from France as well, a protection against steady Venetian danger and threats, traditionally and always - from Turkey.

#### **Second period of Croatian-Hungarian leadership , Austrian protection from 1684 to 1806**

#### **French ( The Gaul Period) from 1806 to 1815 ( Congress of Vienna)**

#### **Abolition of the Dubrovnik Republic in 1815**

#### **Habsburg Monarchy, Austrian Empire from 1815 to 1918**

#### **Kingdom of Yugoslavia up to 1945**

#### **SFR Yugoslavia up to 1991**

#### **Republic of Croatia**

# GROWTH OF DUBROVNIK / THE DUBROVNIK REPUBLIC/ AND ITS ADMINISTRATIVE CONSTITUTION

- a) **Original Territory**
- b) **Acquiring Territory**
- c) **Territorial Aspirations**
- d) **Administrative Constitution**

Due to a lack of historical sources and historiographic documents the scholarly dialogues, disputes, researches about the beginnings of Dubrovnik in historical, territorial, linguistic and other segments are held even nowadays, but an interpretation dealing with its foundation and genesis which is based on archeological finds, has an increasing role. One of the oldest reports was testified by the Byzantine emperor Constantine Porphyrogenitus in his work "De administrando imperio" in 949.

It was not until the most recent time that discussions on the beginnings of Dubrovnik were reopened. It happened in 1981 that not only the remains of a Romanesque cathedral were discovered below the Dubrovnik cathedral, but also of a much older church. It will take a lot of time to go until all is settled down and cleared up. Therefore, once again back to archaeology!

In the last twenty years of systematic, archaeological probing excavations within the historical core of Dubrovnik, within the scope of its restoration after the earthquake in 1979 (since Dubrovnik is in particularly seismic region prone to earthquakes), generated a fair amount of finds relevant to corroborate the theses about the settlement which had been located prior to the City and co-existed with Illyrian Epidaurum, some time later a Roman colony. Such a foothold is established by unexcessably neglected finds of Pre-Roman coins, unearthed below the Dubrovnik Cathedral, which, for the time being, represent, the oldest material remains within the city perimeter. Coins were of Illyrian or Hellenistic origin, dating from the 3rd or 2nd century B.C.

The archaeological finds unearthed all over its western area on the mainland (At Andrija site) undisputably speak in favour of an existing settlement on the site of the present City of Dubrovnik in the Roman period. These holdings were composed of a numismatic (74 pieces of coins), and epigraphic (4 sepulchral slabs) collection as well as one stone base.

Therefore, archaeological finds, *intra muros*, originating from the Antiquity or the Late-Antiquity eliminate earlier suppositions which linked the then finds with ancient and Late-Antiquity Cavtat. Then it was considered that those finds were the fruit of Dubrovnik humanists' world-view of the Renaissance associated with their collector's items brought from Cavtat. In compliance with all facts

stated, it is indeed founded to establish the existence of a settlement before the City itself. Lower time limit approaches the Hellenistic period in accordance with archaeological finds, and the upper time limit is the beginning of the Middle Ages, when Dubrovnik took over the bishop's pallium from its Metropolitan seat in Epidaurum. In compliance with the then understanding of value ranking it became the City in the true sense of the word.

Early Christian fragments offer legible evidence that the settlement had lived in the Late Antiquity to the fulness of the then spiritual life. It was firstly noted in the southern segment of the City, and afterwards increased in number on its northern side (Transfiguratio Domini-Sigurata church). Numismatic finds of Byzantine coins which appeared in the emissions of coinage under Emperor Justinian I, unearthed in the course of archaeological excavations of the Dubrovnik cathedral should be added.

At the turn from the 6th to the 7th century our settlement, the attributes of which were uncovered on the Bunić square was called "castellum". It was for the first time that it was named in archival sources under such title. The oldest quotation referring to the City was in "Cosmographia", in a paper by Anonymous from Ravenna, that famous - "Epidaurum id est Ragusium". The exact date of this work is still questionable, but current scholarly reflections maintain that it can't be younger than 600 A.D. Theses on the genesis of the City are questionable up to this day. According to some authors the possible genesis of Dubrovnik is associated with the Byzantine fortress and its gradual expansion and growth; it can also be confirmed that Dubrovnik was a well fortified settlement in the 6th century, in addition to the understanding about the possibility of the bishop of Epidaurum having a seat in Dubrovnik in the late 6th century. A strong argument on the genesis and foundation of Dubrovnik is relied upon the thesis of the City port as a starting point, a nucleus of the earliest beginnings of a town, corroborated by multiple archaeological finds, and communication circumstances, since people have been getting around on the same paths, adapted to the configuration of the terrain. The port as the starting point of the main communications used to connect maritime and overland routes. Obviously, the foundation of Dubrovnik should be sought in its exclusively important strategic location on a segment of the navigation route in the Adriatic, but also in its maritime - trading significance as a port.

In line with quotations of the Byzantine emperor Porphirogenitus, Dubrovnik was a fortified city with its port and navy already in the 9th century, for it was able to withstand the seige by the Saracens from the sea for a duration of 15 months, and some time later it took part in liberation of Bari from the Saracen seige.

**a) The original territory of Dubrovnik was divided up into civitas (city) and district (district). Civitas designated the City of Dubrovnik within the walls. A district was outside of the city walls and was divided up into Insulae (islands) and Astarea.**

Astarea comprised land area of Župa (Brenum), Šumet (Juncetum, Junchetum), Rijeka (Umbula, Ombla), Zaton (Malfum, Malfium) and Gruž (Gravosium), the area of which was stretching to the city walls.

The expression terra firma (mainland) was used for the Astarea land area or hereditas (heritage), and/or djedina-ancestral property. The toponym Astarea meant a region by the sea. Astarea of Dubrovnik stretched from Cavtat to Zaton, descended from Orašac and went to the sea. Astarea has surely become a constituent part of Dubrovnik very early. Having survived the Slav onslaught the inhabitants of Epidaurum, took refuge on "steep places", as emperor Constantine Porphyrogenitus said. The Dubrovnik anallists write that they settled, at forts Spilan and Gradac in Župa, referring to them as unmistakably steep places, where archaeological data and toponimy point at an organized life before the 7th century, since people of Dubrovnik as well as towns of the rest of Dalmatia possessed their urban ager.

The original land and extraurban Dubrovnik territory, its city ager, heritage, hereditas, terra firma, Astarea according to the sources was a constituent part of the City of Dubrovnik, its administration in its basic perimeter since the 7th century. A citizen of Dubrovnik Nikola Ivanov Bona expressed such an assertion long time ago, in the 18thc., who said that people of Dubrovnik had possessed Župa from the beginnings, so that we could say with good reason that the field of Dubrovnik was its ager.

The second part of the Dubrovnik district comprised the islands, insulae, which did not belong to Astarea. They encircled its mainland like a ring. These were: Mrkan, Bobara, Supetar, Lokrum, Grebeni, Daksa, Sveti Andrija (St Andrew), Koločep, Lopud, Ruda, Šipan, Jakljan, Olipa and several islets beside the Island of Šipan: Tajan, Crkvine, Kosmeč, Mišjak. The Islands of Koločep, Lopud and Šipan were populated by farming population, so Dubrovnik subjugated them under its rule. Those three Elaphite, "the deer" islands were insulae in the true sense of the word. All other islands, islets reefs and rocks have become incorporated into the general notion of the district of Dubrovnik. Anallists, chroniclers, historians have different opinions as to when they became possessions of Dubrovnik, but the fact prevailed that they had had them "from the times immemorial" even before Astarea (for they were as seafarers stronger than the Slavs from the surroundings at all times).

#### **b) Acquiring Territory**

District and perimeter of Astarea has not always possessed an accurate border. The area was narrowing or widening according to the circumstances in the hinterland and depended on the strength of the hinterland. It was possible to draw the final border of Astarea in 1366 when Ragusans (people of Dubrovnik) regained the upper area of Astarea and divided it to its inhabitants. (In the age of weakening of Raška empire in 1357 the emperor Uroš IV returned the upper parts of Astarea "from Ljuta to Kurilo") to the people of Dubrovnik.

That border proceeded from Ljuta brook to the present peak Kunja Glavica, after that it passes the mountain peaks on top of Plat to the present Veliki Opasaonik, Zvijezda on top of Zavrelje, Malaštica on top of Petrača, passes the mountain peaks on top of Buići and Postranje to Ivanica, changing direction to the south towards Gornji Brgat, but over the top of the mountain. Turning to the west over the top of mount Pares to Vraštica on top of Šumet, to the peak of Golubov kamen on top of the source of Rijeka. From this place it ran mainly

along the old border of Astarea with the difference that it has currently comprised Vrijesno brdo on top of Rožat and Prijevor and a narrow belt of land to Mokošica, so that the border moved towards mount Kurilo. Even the present Croatian state border above Župa, Šumet and Rijeka originated from that time.

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b) The territorial extent of the Commune of Dubrovnik in the 13th c., prior to the acquisition of independence, stretched on the mainland from Župa dubrovačka in the east to Zaton village behind Dubrovačka Rijeka in the west, even comprising the islands.

- in the 13th century, people of Dubrovnik managed to acquire the Island of Lastovo in 1252;
- in the 14th century, the Peninsula of Pelješac with Ston in 1333.;
- in the 14th century, in 1345 the Island of Mljet;
- in the 14th century, 1357 a belt on top of Župa dubrovačka from Ljuta on the border of Konavle to the Kurilo village (Petrovo selo);

An example of a "micro region" of Dubrovnik

Konavle, the southernmost part of Croatia, comprise its mapping and strategically completed coastal area of the former Dubrovnik Republic; both were in the past politically, economically and culturally connected, its total area 210 km<sup>2</sup>.

The Dubrovnik Republic stretched across 1.357 km<sup>2</sup> land area, so Konavle was the fifth part of its total state territory. Konavle is divided into : Gornja and Donja Banda and Konavle field stretching in between, furthermore Vitaljina with Molunat and Prevlaka, Cavtat with Obod and Konavle mountains. Some hundred villages and hamlets, mainly in the vicinity of water sources or fertile areas were built in Konavle, as well as an urban entity and village estates - summer residences. The count of Konavle had a seat in Pridvorje, the deputy count in Mrcine, and after the Republic had become extinct the seats were transferred to Cavtat and Gruda.

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Thus finally, in the 15th c. the territory of Dubrovnik state was completed and it comprised: the Peninsula of Pelješac, Ston and Primorje in the west, and along with the oldest Dubrovnik area of Astarea (Zaton, Šumet, Rijeka, Gruž and Župa, the district of Brgat, Gornji and Donji Brgat, Žarkovica, Bosanka, Mount Srđ), still more Cavtat and Konavle in the east. The Dubrovnik authorities exercised power throughout its territory from Klek till the end of Konavle, i.e. to Sutorina; it has not reached the interior, but was stretching along the coastal belt comprising the islands of Lastovo, Mljet, Šipán, Lopud and Koločep, as well as all smaller islands, islets and reefs along its coast. Those were: Bobara, Mrkan and Supetar in front of Cavtat, Lokrum in front of Dubrovnik, Daksina in front of Gruž, as well as the islands of St. Andrija (St Andrew), Jakljan and Olipa by Vratnik, near Ston. Total area of the Dubrovnik Republic stretched over 1375 km<sup>2</sup>, with cca 35.000 inhabitants (I. Mitić).



### **c) Territorial Aspirations**

In line with international circumstances and dangers on a wider European scale, but also in its entourage e.g., dangerous action attempted by Enehan, a Turkish functionary in 1590, during which his intention was to take away Konavle and Gruž, from the Republic; The Dubrovnik Republic had intentions of gaining and joining some rather large areas in the hinterland of Konavle to its state territory by agreement: Trebinje with Površi and Lug, county Vrm and Vrsinje, Bileća, Dračevica, i.e. The western part of the Bay of Kotor with Herceg Novi, Morinj and Risan. The aim was to not only to expand its state territory, but better still to ensure the possessions of Konavle, as well as further approaches towards the extrurban areas of Dubrovnik. By acquiring Dračevica in the eastern part of the Bay of Kotor it could be possible to counteract the Venetian positions. It failed. Although the Bosnian king "donated" Vrsinje in 1451 "everything in the district with all the villages and hamlets" and "Dračevica county".... "to the boundary of Kotor". Peace deals in terms of territorial acquisitions have determined: "status quo ante".

Old aspirations of Dubrovnik to appropriate the mouth of the Neretva River to its domain did not succeed either, nor it happened in the course of the 15th and 16th c., but the practice has remained to have the Drijeva market on a lease, in other words, to maintain privileges of selling on that market, but the Republic had the Posridnica island exactly on the mouth of Neretva under its control for a duration of specific time and thus a more efficient protection of its interests at Drijeva.

In the beginning of the 15th c. the Dubrovnik Authorities put a lot of efforts to gain the islands of Korčula, Hvar with Vis and Brač from Hungarian and Croatian kings, to extend its state territory; to better secure approaches to the extremely important mouth of the Neretva river; and to make Venetian positions in Central Adriatic more distant from the City of Dubrovnik and parts of its territory. But, king Sigismund (1413-1417) entrusted the Republic with administering over those islands for only three years in all.

Finally, the intention of people of Dubrovnik at the court of Hungarian-Croatian king Ladislaus in 1444 to assign them the port of Valona with Kanina fortress in Albania should be mentioned. Possessing such an important port of export, the government planned to relieve its permanent concern in supplying insufficient cereals. This intention has not been realized either.

### **d) Administrative Constitution of the Dubrovnik Republic**

The political power in this small aristocratic state, the City and its Republic, was in the hands of the Great Council (Consilium maius)- which was an assembly of noblemen of age. It was the body which enacted laws, resolved national and legal issues and elected all state officials. Consilium rogatorum, i.e. the Senate, operated as a political body which defined guidelines and drew concrete moves dealing with foreign and interior policy. The Small Council (Consilium minus) was an executive body, which dealt with interior communal affairs. Knez –The Rector presided over all the councils representing the state sovereignty by his function. Due to his impersonal, symbolical role (St. Blaise was the only "ruler"), Rector's tenure of office varied between one year, more than six months up

to twenty days, until it became stabilized for a month. Ramified administration in extraurban areas pursued legality and order of the state centre, by means of appropriate and meaningful organization, through its capillary system of countships and captaincies.

Administration in extraurban territory was organized differently from the one in the City. Along these lines the same principles of administration were exercised in its entire extraurban region, but there were differences regarding practice, in particular between the older and new appropriated territory.

Aiming at a uniform enforcement decisions and ordinances of the Dubrovnik Government and the relevant authorities on the whole territory, the entire state territory was divided into three provinces:

Konavle in the east;

Primorje in the middle;

Pelješac in the west; the authorities sent its representatives, who were known under title: counts, deputy – counts, captains and commander of fortresses (“castellani”) to these provinces.

The administrative area of the Republic was divided into countships (comitatus or contrata) and captaincies. Counts (“conti”) as the heads of countships used to be military commanders simultaneously within their domains, while captains were predominantly commanders to soldiers and exercised a civilian authority. Countships and captaincies often varied in number, until it became stable from the 15th /16th c.

In the 15th c. The Dubrovnik Republic was divided into ten townships: Ston, Trstenica, Janjina, Slano, Župa and Konavle. The islands of: Lastovo, Mljet, Šipan and Lopud with Koločep.

In the 16th c. this division met alterations, with 11 administrative units, 8 countships and 3 captaincies.

**Countships:** Countships of Ston, Primorje (seat in Slano), Župa (seat in Mandaljena), Konavle (Pridvorje), and those on the islands – Countships of the Island of Lopud, the Island of Šipan, the Island of Mljet, and the Island of Lastovo.

**Captaincies:** Janjina, Pelješac (seat in Trstenica/Orebić) and Cavtat.

Each countship was headed by a count and a captain was head of each captaincy; it was a nobleman, elected from among the members of the Great Council, usually for a tenure of one year.

The number of countships and captaincies underwent some changes, in line with the needs of the Republic, mainly during the 18th c. There were counts, in Konavle with its seat in Pridvorje, Župa with its seat in Mandaljena, Primorje in with its seat in Slano, for major part of the Peninsula of Pelješac in Ston, furthermore on the islands of Lastovo, Mljet and Elaphite islands of Šipan, Lopud and Koločep, while captains were in Cavtat, Janjina and Trstenica (Orebići).

**Commander of fortresses – “castellani”,** one in each fortress Ston, Mali Ston, Podvizard fortress (Ston), and another in Fort Sokol (Sokograd) in Konavle.

A count was the head of each countship, however a deputy count could also be elected. Count's office was headed by a chancellor, an officer in confidence of the government of Dubrovnik. Counts were usually elected by the Great Council. Extraurban or country count had to be thirty and belong to the noble ranks. He was under obligation to stay in his countship while exercising his duty as a

count. He could be absent, usually in September, during harvest provided he had a permit. Counts in Župa, Slano, Šipan and Lopud had an obligation of a mandate running at least for 6 months, unlike the Ston, Lastovo and Konavle counts, whose period of tenure of office was for a duration of 8 months, but that was also a subject to change.

### **The Count of Župa**

The countship of Župa was the oldest. In the beginning of the 13th c. the administrative unit of Astarea was divided into several countships and each one had a count of its own: Šumet, Gruž, Rijeka, Zaton and Župa. In the beginning of the 14th c. there were only two counts in the entire Astarea: count of Župa and count of Šumet and the counts of Zaton, Rijeka and Gruž. It was in the 15th century when only one count governed the entire Astarea.

### **The Count of the Islands**

The count of the islands or Counts of the Island of Šipan, the Island of Lopud and the Island of Koločep used to be elected from the beginning of the 14th c. among noblemen from less renowned families. His service started in July for a tenure of 6 months. His term could be extended for another term, the count was also the judge, and could fine locals in the maximum amount of 50 hyperperi. His salary was 120 hyperperi.

### **The Count of the Island of Lopud**

The count of the Islands of Lopud and Koločep was elected among noblemen by the Great Council from 1457. He was a supreme administrator and a judge for a one-year term, but his power was not absolute, since he was regularly convening all inhabitants to attend public assemblies in which he brought and announced regulations. The count who administered over the Island of Lopud brought decisions together with the assembly of inhabitants according to the instructions of the Senate concerning the guards, and on defence of the island from pirates, in particular, who used to attack this rich island quite often. But there were also some advanced brotherhoods, out of which some have turned into guilds with their own assemblies (*universitas* of Lopud), with their judges. The count of Lopud had a seat at his sumptuous court.

### **The Count of the Island of Lastovo**

More remote islands had a very developed autonomy, their brotherhoods took over more political influence. The island community of Lastovo had its own regulations, customs, an assembly named "*universitas*", its commune i.e. "*comuninitas*", its commoners and nobles and its Statute from 1310. Lastovo was not an easy "bite" for the "firm" Dubrovnik Government throughout history, due to a strong autonomy of this local community on the high seas (the Lastovo mutiny was extinguished in blood in 1602). From 1358 the Ragusans sent their count to the Island of Lastovo. He was elected among more esteemed patrician families. Until the count's arrival the Lastovo *zbor*, in other words, *universitas* was the only legislative power, which functioned independently up to 1370, and its power weakened thereafter. The count as the executive power held the third branch of power – the judiciary power as well and kept the official seal of

the Republic. He was paid by the residents of Lastovo, who were also in charge of his transportation, to give him wood, and supply him with meat, fish and vegetables, in accordance with permanently fixed prices. The count resided in Count's court in the middle of the settlement.

### **The Count of the Island of Mljet**

Ever since the arrival of the Benedictines to the Island of Mljet in the 12th c., the island belonged to the archbishopric of Dubrovnik. Besides its ecclesiastical jurisdiction the Benedictine Abbey of St. Mary's exercised both, civil and judiciary power. Already in mid. 14th c. the Dubrovnik authorities had intention to send their count, but it was not that simple. From 1410 the count of the Island of Šipan and other islands went to Mljet 3 times during his mandate to exercise his duty as a count. From 1493 the count was elected for the Island of Mljet for a term of 7 months with a seat in Babino Polje. First counts of Mljet did not stay continuously on the island, but they used to come several times a year.

### **The Count of Ston**

From 1343 the Count of Ston was elected by the Great Council for a term of 6 months with a salary of 200 hyperperi. Along with a count, the two captains were elected, one with a seat in Trstenica, while another had a seat in Ston, which was the second largest town of the Republic, a strategic stronghold and a place in which salt pans were of the utmost importance to the people of Dubrovnik.

The post of the count of Stonj was very important due to the strategic significance of Ston and Pelješac for the Republic, and was considered one of the most responsible duties; only the most esteemed patricians were elected to this post. Captain's post in Trstenica was also extremely important, while the duty of the captain in Ston could be exercised by a nobleman from a middle class. The count resided at his Court.

### **The Count of Slano**

Slano with Primorje was appropriated by Dubrovnik territory in 1399. In the beginning the Great Council elected a count for Slansko primorje for a term of 3 months, and some time later for a tenure of 6 months with a salary of 200 hyperperi.

Only a nobleman could become a count, while a commoner could become a captain or a deputy count. His seat was in Slano, in a nice and existing Count's court. One of the deputy counts had a seat with the count, while another had a seat in Osojnik.

Dealing with his affairs were of the same demanding level as for the Count of Ston. He administered the entire area, he was in charge as a judge, proclaiming punishments in civil and penal cases, and collected state fees, local tolls and taxes.

### **The Count of Konavle**

The first count of Konavle was elected in the Senate in 1420, while all counts in the countryside were elected by the Great Council. He was also elected among noblemen, thus Ivan Gundulić, a man-of-letters was one of the most prominent

ones. The count's term was to last for 6 months, and if he canceled his duty he had to pay fine in the amount of 100 hyperperi. The count exercised full administrative and judiciary power in his countship, while more serious cases were assigned to the Court in Dubrovnik. The Konavle count's residence was at the Count's court in Pridvorje. A countship consisted of : a count, knežaci (count's guards and a chancellor. The count had two assistants – his deputy counts. Both had their seats, that of the first one was in Površi, while the second had a seat in Mrcine. In the period from 1420 up to the end of the 15th c. 134 Konavle counts were elected. Obviously, this duty was not popular among noblemen of Dubrovnik.



## DEFENCE SYSTEM IN THE DUBROVNIK REPUBLIC FORTIFICATION LANDSCAPE

As it has already been presented in the detailed paper, the Dubrovnik commune, and then the city-state, had throughout its long existence devoted great care to the fortification and safety of its own territory, in line with its geo-strategic position. First of all, that pertained to the city of Dubrovnik itself, and then to the planning and fortification of Ston and Small Ston (Mali Ston), and Cavtat. In addition to the system of walls surrounding these towns, the Republic constructed a number of fortifications for the purpose of defence of its territory and its inhabitants. Apart from the fortifications built by the state throughout the territory, fortifications were erected in a way similar to all those along the Adriatic, as well as European coastal settlements, for the purpose of defence against pirates, plunderers, aggressors – these were built by different communities, brotherhoods, guilds, monasteries, autonomous communes (universitas), as well as individuals with their own means, but with a permit from the authorities of the Republic.

**It is fascinating that almost the entire defence system of Dubrovnik still exists to this day, and has served its purpose in the recent Patriotic War (1991 – 1995).**

Throughout history, fortification buildings and systems had been predominantly in the service of defence of settlements, first of all, for protection of their inhabitants (city-forts), also communication routes, important crossroads, river crossings and river mouths, ports and berthings, state frontiers on land, and coastal lines. Purpose, significance, and the form of defence systems changed depending on the progress of military doctrine, the concept of warfare, and the range and destructive power of arms.

### **Fortifications and fortification system in the Dubrovnik region constructed by the Republic**

#### **1. Dubrovnik city walls**

The sturdy and monumental ring of stone walls has singled Dubrovnik out for what it is today – the walls give it form, define it, embellish and make it stand out. The city walls and Dubrovnik are, in fact, one entity; they came into being together, developed together and aged together, as the City could not have survived without the walls. Together with the patron saint St. Blaise, the walls have been protectors of its freedom, its spirit and all its riches. Freedom had often been jeopardized: by Saracens, who held Dubrovnik under siege for fifteen months in 966/67, then the Macedonian emperor Samuilo, who had started a fire in the City at the end of the 10th century. Then came the Serbian rulers who constantly, for two whole centuries, from the 12th to the 14th, threatened

to overtake the city by siege and wars. After them came Venice through the entire Middle Ages, till the moment of its fall, never giving up trying to snatch Dubrovnik under its own permanent rule. The Turks presented great threat constantly, from the moment of their campaign in Europe, till the moment when the small Dubrovnik Republic found itself surrounded by their territories. Even in its most recent history, at the end of the 20th century, Dubrovnik suffered heavy siege by the Yugoslav People's Army with paramilitary units of Serbs and Montenegrins joining in, who, in their aggression on The Republic of Croatia, besieged Dubrovnik, isolating it, depriving it of food, cutting off water supply, and, finally, bombing it and setting fire to it.

During the aggression on Republic of Croatia in 1991-1995 the Yugoslav army used a special kind of war called cultural genocide to delete history and culture of a nation. It must be pointed out that the aggression plan on Croatia was under a military name "Burnt land" and Dubrovnik, as one of the most significant Croatian historical cities, stands as the unmistakable testimony.

Of 824 houses in the city 566 were directly hit by shells.

75% of old medieval roofs were damaged in heavy bombing.

Streets and facades of old houses were hit directly by 314 shells, while the main street Placa-Stradun alone got 50.

9 palaces were completely burnt down.

The Franciscan monastery was hit by 48 shells and the church of St. Blaise, by 6.

**By the year 1994, the city walls were hit by 111 shells, causing damage in 128 places. Efforts were made to repair damages as quickly as possible. Numerous donations made these repairs possible. Among the first were those from UNESCO.**

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Dubrovnik city walls are 1940 metres long, creating a complex fortification system consisting of the main city wall, 16 towers, 3 fortresses, 6 bastions, 3 corner forts, 2 bulwarks with a number of turrets – low, semi-circular towers, 3 moats, 2 barbicans, and break-waves Kaše, and two draw – bridges. The walls are up to 25 metres high, while the city wall on the land side is 4-6 metres thick and 1,5 – 3 metres overlooking the sea.

The present circumference of the walls was constructed in the second half of the 13th century, being constantly modernized and built up to 1660. Each tower has its own name; most of them are named after saints, some bear names according to their position (Fort of Ploča – Kula od Ploča, Fishmarket Tower – Kula ribarnice, Rector's Tower – Kneževa kula, etc.), others according to their type (Revelin, Kantonata). The walls were built by numerous local masons and stone-masons in local stone and a mix of lime mortar. Highly esteemed were the constructors of vaults who built those architectural parts out of tufa – light and supple to shape, quarried from Mlini in Župa Dubrovačka. Architects were both local and foreign, chosen by the local authorities, and were under constant observation during their work.



Paskoje Miličević, Marin Držić, Nikifor Ranjina, Juraj Dalmatinac, Michelozzo Michelozzi from Florence, Onofrio and Simeon della Cava, Antonio Ferramolino from Bergamo, Mark-Antonio Bettacci from Florence and Seporoso Mateucci from Fermo were the most prominent among them. The City financed the construction of fortification system with funds collected from different sources – mainly custom taxes on various goods, but also numerous funds and legacies. In times of crisis, the practice might even be to invite tender for state loan for the purpose of their refurbishing.

The original walls consisted of the main city wall with bulging battlements and a wall walk supported on a system of consoles and small vaults. At the time of defense with cold steel, in addition to personal arms (sword and dagger, bow and arrow, shield and spear) crossbows were used. They also used military devices like springalds which threw strong arrows set on fire as well as fire balls, and fort crossbows.

Defence complexes included open rectangular towers, larger and stronger ones positioned in strategically significant points. In the 14th century, bulwarks were added to the city walls so that the walls with towers gained considerably in height in order to withstand modern military devices. On the land side, city moats with drawbridges were added.

With the improvement of war devices that allowed a longer range of powerful arrows and stones, the city wall had to be heightened all the time. At that time, the towers were closed, vaulted over, interior premises were added, the height increased, giving them a narrow, high shape. However, the defence system remained the same as before. This developing phase corresponds with the Gothic style.

With fire arms appearing on the scene, Dubrovnik, being among the first to acquire the same, the war tactics were changed, causing the reconstruction of the City fortification system. The existing relatively slim and high forts were an ideal target for canon that could easily be hit and destroyed. That led to reinforcing of the walls, with wider platforms built to house the powerful artillery that existed. The defence of the city was transferred from the top of its walls to their base. Fortresses were equipped with casements, while towers had cannon openings- embrasures and crenellations shaped with strong battlements. Strong circular forts and bastions were built, while frontfort Ravelins stood in front of the City, with a wider clear space in front of them. This stage of the development of the city walls coincides with the Renaissance period. With the emergence of fire arms, first canon came into use in Dubrovnik in 1351, while the year 1410 saw the start of the first canon foundry in Dubrovnik. The process was under strict control of the state authorities which selected people to work there with great care. At the beginning they were foreigners, then local craftsmen, smiths and founders. Ivan Krstitelj Rabljanin was among the most prominent.

A sensational archaeological discovery (2005-2009) within the perimetres of the

walls, between the fortress of Minčeta and the Upper Corner Tower (Gornji ugao) brought to the light of day a complete metalurgical plant for arm production in the very city centre. Namely, these two towers were linked directly with the city walls, thus making “scissors” (klijesta) as a defence element obsolete, but turning them into an integral part of the city which was going to gain an important and valuable role. They were becoming an industrial, metalurgical zone, where gun powder was prepared, but also gun metal (bronze) was cast, and arms produced. It was the ideal place for such a valuable and vital activity of the times. Since it was inside the city, and yet protected by city walls and separated from the residential area, protecting it from smoke and stench, and preventing an eventual fire breakout. Nowadays, in an excellent museum “in situ”, unprecedented anywhere in Europe, thanks to the efforts of the Society of Friends of Dubrovnik Antiquities, a civil society that has been taking care of the city walls for the past 60 years, it is possible to see the foundry architecture, with all the original artefacts: smelting plant, mould plant, water basins, a channel for sedimentation and a sand depository. It was in function till the 17th century.

With the development of artillery and increase in range and destruction power of he canon, it was deemed necessary to fill in some towers with soil completely in the 17th century. Bastions – strong pentagonal fortresses of sloping walls were erected within the main wall curtain. The height of these was levelled with the level of the walls. Some fortresses got some basic elements of a bastion, like ear (uho) or beak (kljun). However, the manner of defence remained the same as in the earlier period. This final phase of the city walls coincides with the turning of the Renaissance into Baroque. That is the state and form of the Dubrovnik fortification system which reached its final stage in the 17th century. Since then, until the very fall of the Republic, i.e. the beginning of the 19th century, it remained unchanged in its conception.

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The city walls, with their stone ring, prevented free access to the City. Communication was possible through controlled spots, through city gates placed on their eastern and western parts, over drawbridges. The gates were closed at night so that nobody could get in or leave the City till morning. It was only at the beginning of the 20th century that the third gate, the so-called Buža was opened, causing the northern part of the bulwark to be pulled down.

The only free access to the City at night was from the sea through the city port so that it was closed off with special port chains constructed from strong chainrings (verige) and wooden girders at the earliest times.

Unlike today, when a walk along the city walls provides a special adventure and a pleasure to remember, in the old times they were closed to public and only strictly controlled guards could patrol them. **A special system of signalling and informing of the state of security by bell ringing.**

The Dubrovnik Republic did not have its permanent army, but it engaged mercenaries when the need arose. They were called barabanti and came mainly from

Northern Croatia or Hungary. special attention was given to arms, so that they were always ready for use. **The city walls functioned as the central part of the entire fortification and safety system of defence of Dubrovnik.**

This monumental fortification system thrills by its beauty and simplicity, with numerous and different defence elements which had been blended into one unique entity. However, the whole system is dominated by four fortresses, placed at the “corners” of the City: Minčeta, Bokar, Revelin and St. John (Sveti Ivan), while the fifth, Lovrjenac, stands outside the City, rising out of the sea, towards the west. The Minčeta Fortress stands on the highest spot of the City, at its northern corner, thus dominating over Dubrovnik. Nowadays, it is the only city fortress with a strong bulging battlement, placed on a protruding foundation – in a shape of a drum. It forms a wide platform for the cannon, while the interior consists of two radially placed casemates on two levels. Minčeta had an important role in the city water supply, when, in 1437, spring water was brought from the village of Šumet to Dubrovnik through aqueducts. The waterway was divided inside Minčeta so that one branch brought water to the Small Onofrio's Fountain (Onofrijeva fontana) in the east, and the Great Onofrio's fountain in the west. The fortress Bokar stands on the southwestern corner and represents a casemate fort with two levels in the interior, and an open platform on the top. Part of it stands on a sea cliff, so that its foundations, in the form of vaulting, touches the sea level and so, during the calm seas, a small boat can pass underneath.

The fortress Revelin is situated on the eastern corner and is surrounded by a city moat. Its interior hides the remains of the historical space it was built on. It got its existing form at the middle of the 16th century, functioning as a strong fortress that defended approach from the eastern city gates. A system of casemates, in the form of a meander lies in a part of its base.

The Fortress of St John (Tvrđava Sv. Ivana) stands on the southeastern corner. Nowadays, it is a home of a picturesque aquarium on the ground floor, while the upper floors are keeping and presenting the exhibits of the Maritime Museum. It got its present form in the 16th century, when it was a fortress rising out of the sea that prevented entrance to unwanted vessels into the city port, by means of its canon placed almost at the sea level. Originally, it consisted of one floor, topped by a spacious terrace housing canon. Porporela, a rock coastline with a breakwater was built in the second half of the 19th century which separated the fortress from the sea.

Lovrjenac, a striking free-standing fortress of a triangular shape stands on a high sea cliff. It is divided into four levels with wide platforms for the canon. The interior plan is such that the fortress premises are strung around the central atrium. Its facilities allowed safe stay of up to several months and survival in isolation. The renowned inscription stands out above the entrance “Non bene pro toto libertas venditur auro” (Freedom is not sold for all the gold). Nowadays, Lovrjenac is a famous venue for performances of “Hamlet”. The civil Society of Friends of Dubrovnik Antiquities has been taking good care of the fortress for over 60 years.

Dubrovnik city walls are one of the best preserved fortification system, the most magnificent monument of the architectural heritage of the City, keeper of freedom, the most precious value that they possessed. Their purpose was for defence, but by their closely-knit form they contribute to the aesthetic impression of beauty and simplicity, while they can be “read” as a book for the understanding of the urbanism of Dubrovnik. They should be put in the wider context of the city defence, linking them to the fortresses on the mount Srđ right above the city, as well as the fortifications on the islands of Daksa and Lokrum, it all forms the entirety as a part of the fortification landscape.

### **SRĐ - fortification landscape**

The massif of Srđ is a part of almost every view of Dubrovnik, being its cradle, shelter, shield and defender.

The history of the Mount Srđ cannot be separated from that of the City, ever since the prehistoric times of the original territory of Dubrovnik, Astarea, within the district of Brgat, as it was the most prominent „terra firma“, patrimony, the original territory and the most powerful weapon in its defence.

Due to its geostrategic position, the Mount Srđ had an important role in the fortification system of Dubrovnik in all the epochs of its history. The spot was in the function of the observation point (together with the small church of St. Sergius and Bachus on the spot to the east of the present Fort Imperial) until the time of the French occupation. It was considered that stronger fortifications of detached posts were dangerous because of the possibility of enemy capture and turning them into a stronghold against the City. This applies to the top of the Srđ plateau and the Island of Lokrum (not even the quarantine survived there). That was why that, in times of the Republic, this space was for the first time considered in military and strategic terms in the 17th century, in the renowned report of the military engineer Mihajlo Hranjac. Due to the threat from the Turks, at the end of the 17th century, Dubrovnik set on the fortification of points on Bosanka and Brgat as well as in the suburbs. However, those were field fortifications, and thus have not been preserved, although they were kept up till the end of the Republic.

The strategic importance of the Srđ plateau became prominent and so fortified on the wake of political turmoil at the turn of the 18th into the 19th century, and the emergence of new military doctrines, which will have considerable repercussions on the fortification system of construction.

As early as 1806, the second day following Molitor’s crushing of the besieging forces, the French occupation commanders decided to erect a strong fortress – Fort Imperial – at the top of Srđ, the spot from which the Russians and the Montenegrins attacked the City. Work on construction of fortifications at Nuncijata, Žarkovica (Fort Delgogue), and those on the islands of Daksa and Lokrum (Fort Royal), started in the same year within that same system of defence.

Therefore, the construction of Fort Imperial on Srđ started in 1806, but it was intensified from the year 1811, due to the difficulty of terrain and the breaking through of long hairpin curve road up the slope of Srđ. The opening ceremony took place on 15th August, Napoleon’s birthday. The Imperial fortress

represented the powerful, key fortress of the fortification defence trapeze of Dubrovnik ( forts of Delgorgue, Royal, Lovrjenac, Imperial).

The Austrians widened and improved both fortresses, Fort Imperial and Fort Royal, making the administrator of the military district, the Austrian colonel Giuseppe Amerling rightly concluded: "Fort Imperial is nothing more than defence barracks with two semi-bastions on each side. Among all the defence facilities at the disposal of Dubrovnik, it is the highest and the most important for the defence of the City on land."

The fortress Fort Imperial was in full defence function during the Patriotic War 1991/92. In addition to its exceptionally significant role in the defence of the City, it has become a real and a symbolic cornerstone of Croatian resistance, the point from which its defenders defended and saved Dubrovnik. It sustained heavy damages in war destruction, but the appropriate renovation in line with its historical significance still awaits.

Two centuries of recent history and military technics have been preserved in that complex, as a modern addition to the millennium string of the Dubrovnik city walls, and so the Fort Imperial on Srđ is strategically consistent continuation of fortification and defence of Dubrovnik.

#### **The system of fortification landscape of Srđ plateau**

The premise of the existence of fortification landscape is the integrity of the main characteristics defining the landscape as such. One of its attributes is the wide view stretching out of the fortresses, necessary for the strategic maneuver and inter-communication. Depriving the fortifications of these essential attributes of view and access, their particular integrity will be destroyed, and thus the entirety of the sensitive fortification landscape.

The French occupying authorities, realizing the strategic potentials, set on the construction of forts Imperial and Delgorgue according to the most modern achievements in military architecture of the times. It is most probable that the French built the shooting range, a rare example of such a kind of military architecture in Croatia. The Austrian authorities further fortified Srđ, improving the forts. They built 8 detached attack points, the so-called redoubts (historically redouts) along the northern and the eastern edge of the Srđ plateau. All the forts and redutas were in visual communication with one another, but also connected by roads, allowing quick movements of military units, as well as supply of distant positions. Austria, in 1851, apart from the redutas, built the battery Crni Do on the southwestern slope of Srđ. Slightly lower down, fort Nuncijata, guarding entrance to Dubrovnik and Rijeka dubrovačka from the sea, was built in 1866.

During he Second World War all the redutas on Srđ and the fort on Žarkovica were refurbished and reconstructed. In the second half of the 20th century the Yugoslav Army built several batteries, actually anti-aircraft canon batteries with underground pillboxes for storage of ammunition and as a hideout for soldiers on the southern ridge of the Srđ plateau, below the village of Bosanka. All these were in use during the Patriotic War.

The entity Bosanka, a settlement of a free type, situated to the east from the fortress Imperial.

List of defence buildings, fortresses, fortifications, redutas, cannon batteries, serpentines, and the circular communication among them:

**- Fortifications:**

**Fort Imperial**

A completely preserved and easy-to-read fortress, with the French core and the Austrian added construction and improvements during the 19th century;

**Fort Delgorgue on Žarkovica**

Part of the Dubrovnik defence system within the entirety of the fortification landscape, defending access to the City and to the sea from the east, on a high point above Sv. Jakov (St. James), on Višnjica, on the stretch towards Brgat Donji. Construction started at the time of the French occupation of Dubrovnik in 1806, the fort complex designed according to the 19th century manner. Retained its function during the Austrian occupation, with added building and space at the time of military threat in 1866.

**Fortification Strinčjera**

Situated to the southwest of Fort Imperial on a wide plateau of the elevation, built after 1870, was in use later, even to the time of the Patriotic War.

**Shooting range "Streljana" – Bosanka**

Located to the southwest of the village Bosanka, ground plan a quite elongated rectangle, from both elongated ends a high stone wall was built, in the first half of the 19th century. Military drilling-ground, popularly called "streljana", equipped with recognisable and partially preserved elements, stone-built parapets, for example. This is a gunnery range unparalleled in Croatia, even wider.

**Fortification Tumba - Brgat Gornji**

Fortification Tumba was constructed in the 15th century on a strategically key point for control of a border crossing. It is under protection as an archaeological site. Remains of perimetral walls, meaning that their structure is so ruined that it is dangerous to stay near them, for fear of their falling. The site was ideal for defence and control of access to Bosanka, Dubrovnik, Župa and Rijeka dubrovačka. It was in use during the French occupation of Dubrovnik.

**Remains of sanitary installations in Gornji Brgat**

**Redoubt Strinčjera**

**Redoubt Gradac**

Prehistoric site, line of cadastral register, Prijedor and Rožat, hillfort locality, construction of the fort, mid 19th century, a potential archaeological site, in continuous military use

**Redoubt Gradac mali**

Dual hillforts defended important land communication routes in this area,

similar to the rest of the coastal area. This site cannot be described without archaeological excavations, possible dating as the above;

Redoubt Kotline

Redoubt Kapele

Redoubt Dolić, archaeological site

Redoubt Dolić mali, archaeological site

Redoubt Bratitovo

Batteries – Bosanka

Battery Crni Do

Hairpin curved path from the City to Fort Imperial

Construction of Fort Imperial was delayed due to the difficult terrain and digging out of long hairpin paths up the slope of Srđ. The final shape was elaborated from 1839 – 1845.

Circular military road on the plateau of Srđ – the circular communication which linked all redoubts on the plateau of Srđ with Fort Imperial in need to be defined in more detail and presented.

Lokrum: Fort Royal

At the time of the Republic, the Island of Lokrum was “only” the seat of a Benedictine monastery of St. Mary with a 17th century tower near by. Historians report that the French started fortification as of the second half of 1806. They perceived the strategic importance, the same way as they saw the need to build a strong fort on Srđ. Fort Royal – named after viceroy Eugene Beauharnais, Josephine’s son and Napoleon’s adopted son. The Austrians added to the structure, enlarging it in line with the current military technics.

With all that has been said above, it is Srđ which illustrates the millennia-long efforts of Dubrovnik to survive on the east-west boundary. All the states ruling over these regions have left their traces on Srđ, so that a concentration of edifices of military kind can be found on that mount, testifying to the times and the current military-defence technical achievements.

Finally, the plateau of Srđ with its wide fortification landscape offers an excellent and safe opportunity of communication with all the four sides of the world: Lokrum, Žarkovica, Brgat Gornji towards Župa, Nuncijata, Gruž, Lapad, Rijeka dubrovačka, Daksa, Koločep channel . . . not forgetting its vegetation and the natural eco system.

## **1. Ston - Mali Ston**

### **The second walled town of the Dubrovnik Republic**

#### **Ston walls/fortification complex**

The Dubrovnik Republic bought the Pelješac peninsula in 1333, a very important asset of the extreme strategic position; thus enlarging its territory westwards with an asset enabling it to control traffic on sea in Southern Adriatic and the mouth of the River Neretva. It also acquired the lands, valuable agricultural and cattle - raising land and, above all, a valuable asset salt pans of Ston, taking over from Venice the monopoly of selling salt along the Southern Adriatic and to the countries in the hinterland.

Decision was passed straightaway to protect the newly acquired territory from attackers, both from the land and from the sea. The key strategic point was Prevlaka – a narrow isthmus linking the peninsula with the land.

That was exactly the place, on Prevlaka, i.e. on the slopes of the Podzvizd hill, that the Ston fortification complex was built. It encompassed three small historical towns: Ston, Mali Ston and Broce. It was over 7.500 metres long, but since the segment from Ston to Broce was demolished in the 19th century, the complex has been preserved to this day in length of 5.500 metres. Apart from the basic wall curtain, it comprises three fortresses (Veliki Kaštio, Koruna and Podzvizd), 41 towers, 7 bastions (Sokolić, Arcimon in Ston, three bastions of Veliki Kaštio, bastion of Podzvizd and Arcimon in Mali Ston), 4 bulwarks (to the east and southwest in Ston, one in front of Mali Ston and another in front of Koruna), as well as the moat filled with water surrounding the western, southern and eastern sides of Ston. The wall construction in Ston started immediately in 1333, with the building of Great Wall (Veliki zid) – the wall along Prevlaka on the eastern slopes of Podzvizd. The construction of this grandiose complex of a number of towers and fortresses lasted till the beginning of the 16th century, with later periods bringing only their adaptation to the new war tactics.

### **Mali Ston**

Represents an example of late Middle Age planned town-building. It was founded by a decree of the Small Council of the Republic, at the end of May 1335. Three plans have been preserved to this day, which are three unique documents of urban planning construction in the 14th century. They are kept in the collection Cathasticum of the State Archives in Dubrovnik.

In addition to its defence role, Mali Ston also had a role in trade, since it was a cargo port, primarily for salt, but other goods as well, such as leather, wool, wine and other agricultural produce and warehouses. It also had a military function, being the seat of defence for the territory from aggressors from inland, as well as from the sea, since it was a secure and fortified port with a shipyard.

Dates of construction of significant towers and fortresses in Ston and Mali Ston:

Great Wall	1333 – 1336/7
	1335, first four towers on the wall above Mali Ston
	1349, towers below Podzvizd
Podzvizd	1335, the beginning of the 17th century, continuous work
	1446, southern parapet wall, bulwark in 1449, the north western bastion in 1499
Koruna	1347 – 1499 from a simple fortress to a developed late
Middle Ages' fortification	
Kula barabanata	
For mercenaries	1349
Kula Nad velom vodom	1357
Veliki kaštio	1357 – 1613
	1396 bulwark , wall reinforcement in 1489 and 1490, same in 1613
Ston	1407 encircling by walls, the northern wall in 1475,



	1441 eastern moat in 1441, 1446 eastwards Bulwark in 1408, western wall from Ston to Podzvizd with towers
Toljjevac	1471
Arcimom in Mali Ston	1473
Stoviš	1475
Minčeta	1491
Arcimon i Sokolić	1504

Fortification system of the Ston region, almost fully preserved, is even nowadays a testimony of a vision and strategy of defence and security facts, especially realization of that vision which has its role in modern times.

Following many years of restoration of the Ston walls (restoration of Veliki kaštio is under way), they have become passable and open to public, thanks to the investments from The Society of Friends of Dubrovnik Antiquities, while the income from them has become a monument annuity which is reinvested in the monument.

## 2. Fortress Sokol in Konavle

Sokol town (grad), a natural fortress, is on an inaccessible rock, more than 25 metres high. Its position enables control of the entire eastern region of Dubrovnik, likewise the main traffic route going from Konavle to the north to Hercegovina and the interior of the Balkans. These are the chief, especially strategic, reasons why this area has been populated from prehistory to the present day.

Although it was mentioned for the first time under its current name in 1373, the archaeological finds put the date of its origin to a prehistoric hillfort, classical and late-classical fort, as well as to the Medieval town – citadel – which came into the possession of Dubrovnik after the appropriation of Konavle, finally in the year 1423. Sokol grad is the strongest strategic stronghold of the Republic towards the east. Therefore, in addition to the Count's Palace in Pridvorje, and its link with captains of Cavtat and Molunat, it acquired a role similar to that of Justinian's castrum from the 6th century: defence of acquired territory from the outside enemy. During the whole of the 15th century the Republic invested considerably into the citadel in order to make it a strong citadel, a point from which fertile region of Konavle and the south-eastern state border could be defended. It also had the role of a refuge.

The fortress has three levels: the lowest is a space for the refuge of the local inhabitants, the second is the bulwark with a storage space for food with a water cistern, a house for accommodation of mercenaries, house for crossbow men, sanitary premises and the sentry tower; while the top part consists of the most important facilities: large cistern, food storage, grain storage, castle commander's living place with a hearth, a church, foundry, bread-baking oven.

Sokol kula had an important role in the 16th and 17th centuries, but it lost strategic importance after the Cretan War of 1669, so that the Dubrovnik army left it in 1672. After three centuries of going to ruin and devastation, it came into possession of Society of Friends of Dubrovnik Antiquities in 1966 and, after

reconstruction lasting half a century, it was turned over to public, explored, restored and successfully presented as a first class heritage attraction.

### **Cavtat**

The small town of Cavtat is situated on a peninsula that was once surrounded by city walls on the land side. A moat was dug in front of the walls, while on the outer side stood 4 small square towers, double city gates, and wall wings in the sea preventing access to unwanted visitors to the town.

The purpose of that interesting fortification system was the protection of the inhabitants of the western part of Konavle with the settlement Obod and the small peninsula that housed the ancient Epidaur, the very source of Dubrovnik. This way of protection provided shelter and refuge for the inhabitants of the western part of Konavle, as well as for their property. The settlement of Molunat played the same role on the eastern side of Konavle. Thus, a refugees' camp was organized, and for that purpose a wall was constructed dividing the land from the peninsula of Cavtat, in a way similar to that on the peninsula of Pelješac built a century earlier, protected by the Ston walls.

The Dubrovnik Republic started the process of fortification of Cavtat in the year 1429, carrying on the construction until 1431, despite the war going on at the same time with the Bosnian duke Radoslav Pavlović. The Cavtat fortifications survived until the end of the 19th century, when the Austrian authorities filled in the city moat, pretending that it was done for aesthetic reasons. At the same time, the city gates were demolished, together with a part of the walls. The remaining part of the fortifications curtain, including the loop holes were restored by the Society of the Friends of the Dubrovnik Antiquities.

-Ilustracija, iz dokumentacije DPDS-

### **Molunat**

Molunat is situated on the south – eastern coastal area of Konavle, at the distance of 18 nautical miles from Dubrovnik. It is almost at the edge of Konavle at its coastal area, in the vicinity of Prevlaka, Ponta Ostro and the border with the Republic of Montenegro. It is the only coastal settlement of Konavle, apart from Cavtat. The coastline in Molunat is richly indented and so stands out from the entire coastline of Konavle which is characterized by "Konavoske stijene" ("Cliffs of Konavle"), high, inaccessible cliffs which fall steeply into the sea and stretch eastwards in an almost straight line.

Tumultuous and uncertain times following the acquisition of Konavle and the establishment of the rule of the Dubrovnik Republic over that territory led the Ragusans to initiate a plan to protect the inhabitants of Konavle from siege, attacks, plunder and killing by the enemy coming from the neighbouring lands under the Bosnian and the Turkish rule. They planned that Cavtat and the peninsula of Molunat should be a refugees' camp and a shelter in the times of trouble. It was specified, according to the regulation plan, where exactly everybody should shelter.

The Molunat fortifications represent a defence wall for the refugees' camp, built at the decision of The Dubrovnik Republic authorities, with the aim of protecting the inhabitants of Konavle at times of enemy attacks and battles, while Molunat itself was a refuge for those suffering from plague, and also as a

quarantine for ships arriving from ports infected with plague. The first mention of its construction is the decision by the Small Council dated 16th January 1468, when three nobles were instructed to construct a wall around the peninsula of Molunat- Crna gora. The construction was completed in the year 1471. This peripheral area of the Republic had often been the target of attacks by pirates. Documentation was prepared for the restoration of the Molunat fortifications, and the Society of Friends of Dubrovnik Antiquities intends to restore them.

### **Tumba (Grobnik)**

An elevation, called „Tumba“ stood in the vicinity of the village of Brgat Gornji: it was an oval plateau rising to about 10 metres above the road. Next to it, on its eastern side, stood a somewhat lower and a much smaller one, while the northwestern side of the upper was a cistern. Remains of massive fortifications, built in lime and terra rossa were visible on both sides towards the road. The elevation Tumba dominates over the road and over Župa dubrovačka, with a dominating view to the border with Hercegovina and to the Dubrovnik River. It is an ideal, strategic, position for the defence and the control of access to Bosanka, Dubrovnik, Župa and Rijeka dubrovačka. Tumba was fortified for the purpose of war with Radoslav Pavlović in 1430., and then again it was armed in the year 1451 during the war with herzeg Stipan, becoming a frontier fort, with a border settlement being built near by. During the French occupation of Dubrovnik in 1806, the French equipped Tumba with arms for defence against the Russians and the Montenegrins, but the French were defeated, their general Delgorgue was killed. Austria abandoned this fort, During the Second World War, the Italians demolished the walls of the old fortification and used the stone for building pillboxes. It is necessary to include these fortifications into the conservation plans soonest possible, and signpost them appropriately, so that it can function within the wider system of the fortification scenery.

**Fortifications in the defence system of Dubrovnik, built by various communities and individuals at the times of The Dubrovnik Republic.**

### **The Island of Lastovo**

The island community joined the Dubrovnik Republic of its own will as early as 1252 and enjoyed autonomy. It had a spacious fort (day and night guard with a number of cannon) on the hill Glavica above the settlement, on a strategic point. The upkeep of the fort was in the responsibility of the community (universitas) with the aid of the Republic, that included, in addition to the arms, a stone statue of St. Blaise, given so that it can be built into the fort as a symbol of its “nadležnojje I Turkesti”. Following the familiar Lastovo uprising, i.e. the forceful overtaking of the place, the Dubrovnik authorities overpowered the insurgents with the help of the Venetian navy, took over Lastovo and sent a captain with 60 soldiers to form a fort garrison. The fort at the Island of Lastovo is not mentioned in the documents since then.

The contemporary Lastovo Fortress “Kaštio” was built by the French during their occupation of Dubrovnik (1806 – 1814).

In addition to the above-mentioned fortress, there was also a sentry fort, called “Toreta”, by the church of St. Blaise, surrounded by a fortification wall, above the main access to the amphitheatre settlement called Prijevor. The fort is still

preserved, but it was reconstructed and plastered on the outside during the Italian occupation.

### **The Island of Mljet**

There is a number of fortified constructions and forts similar to those on the islands of Lopud, Šipan, Koločep and the peninsula of Pelješac. They were built in the times of the Dubrovnik Republic for the purpose of defence from the pirates, especially the Venetians, which plundered relentlessly during the Cretan wars and later fought between Venice and Turkey. That is the reason why no larger villages were built on the coast, and their being situated strictly inside the island.

**Okulje** : a number of buildings with loop-holes, the village deserted at the end of 17th century, the parish transferred to Korita.

**Korita** : a dense type of village, built on a plateau high above the sea level, two forts, the one in the village centre is square in shape, with roof machicolations, and a cistern well preserved.

**Prožura** : This settlement, high above the sea level boasts a square fort with machicolations for defence (ground-plan 5,80x5,80) property of the church of St. Martin, since it was built by the brotherhood as a village community;

**Babino polje** : two ruins in the village called colloquially "Stari and Novi kaštio". Stari kaštio is a square building with the tank for rain water. The New one is larger, of irregular shape and in the state of ruin. One of these forts is mentioned in the conclusions of the Senate from 1606, when a nobleman was elected the captain of the fort of Mljet.

**The Islet of St. Mary on The Great Lake (Veliko jezero)**: the ancient Benedictine monastery with the church of St. Mary of the Lake, a monument of universal value, is a gem of Romanesque style of the 12th century. It had been reconstructed many times, so that the contemporary two-storey building is in the function of a holiday complex. The western façade had defence corridor with three bulges, a guard-house on a console equipped with loop-holes. A strong fortress is built over the church vestibule. The newer belfry at the north-eastern corner of the monastery complex has been transformed into a powerful, tall, four-cornered fortress. The access to the fortress was only across a drawbridge from the second floor of the southern wing. All the fortresses were constructed at the end of 16th century and the very beginning of the 17th century. The entire monastery complex of a highly harmonious style, including the church, is a defence entirety in the face of a pirate attack. It is an example of monastery and church building, perfect in proportions and shaped in a horticultural environment of the islet, of a Benedictine complex, situated at a strategic point, on a small island, in the middle of the Great Lake ( Veliko jezero) on the Island of Mljet.

### **The Island of Šipan**

The fortress Sveti Duh in Suđurađ: this exceptionally large church – fortress in comparison with the small scale of the village of Suđurađ, 34 metres long, constructed in the shape of the cross, total area 456 square metres, expertly located, was to take care of all villagers of that part of the island in case of

threat (from pirates) in addition to its sacral role. The start of its construction was noted in the year 1577. It was built by the brotherhood of St. Mary in Pakljena of Šipan. The members were inhabitants of Suđurađ, the settlement of rich sea-farers. Church double doors stand out as an example of defence. It was possible to fire through 4 loop holes from the space between the outer and the inner doors, while special grooves enabled throwing stones from the terrace into the inner space of the double doors. In addition to the large church space, the church is equipped with a large cistern and premises for guards.

**Fortress in Pakljena** : A tall, very solid four-cornered stone fortress rises at the corner of a derelict monastery in Pakljena, near Suđurađ. It was constructed in 1569 for the purpose of that part of the island and the island as a whole. The fortress is in the ownership of The Society of Friends of Dubrovnik Antiquities. It is planned to consolidate and reconstruct it.

Fortresses Skočibuha, Suđurađ : these are two defence forts with cisterns, draw-bridges connecting them to summer residences through the first floor which secured entrance in the villa complex of Tomo Stjepović Skočibuha and another belonging to Vice Skočibuha. It is not a matter of a mere protection of private property, since the mansions situated frontally, at the line of the village are in the function of protecting the entire settlement.

This is the case of two especially valuable farming husbandry complexes from the 16th century, in the Renaissance style, with all the characteristics of the construction elements typical of villas and quite common in Dubrovnik building . These are show examples that, in addition to their holiday, economic, housing and production roles, had also that of defence. The forts are in private ownership, both are in good condition, especially that of Tomo Skočibuha. They are the real example, a paradigm of that type of construction with all the elements, including toilets).

### **The Island of Lopud**

Lopud, semi-urban settlement, is an important maritime centre of the Republic, a rich place where Dubrovnik nobles and other rich citizens had their own estates with villas.

The brotherhood of Šunj which had undoubtedly functioned as the local keepers of order, was in charge of the protection of the island against pirates. The brotherhood built fortresses and was responsible for repairs of the same, taking care of acquisition of arms and ammunition and deployment of guards. The Republic Senate assigned arms and ammunition to the brotherhood and gave it permission to fortify certain locations on the island.

All the fortifications to be presented here were erected during the period from the 15th till the end of the 17th century. As it is known, that was the period of the greatest progress and power of The Dubrovnik Republic, but at the same time, the period of a great strife for the preservation of freedom. Coupled with the unstable, and turbulent, situation on the international scene, it was a period of intensive piracy and freebooting.

## **TOWERS AND FORTRESSES**

### **1. TOWER IN NARIKLA STREET**

- Situated within the Medieval encircled private property, named Trabukovića Tower (kula Trabukovića), after its former owner. Its measures are 5 x 5, with the height of 14 metres. In addition to its purpose of defending the private property, its size and height indicate its role as a reconnaissance and observation post. Its position in the centre of the settlement suggests the possibility of its use as a shelter for the adjacent neighbourhood in case of a surprise attack by pirates. Remains of consoles indicate existence of machicolations Dating: as the entire property Gothic, i.e. 15th/16th centuries.

Apart from this, there are others:

### **2. MIHO PRACAT'S TOWER**

- Stood on Pracat's property, in the centre of Lopud Bay up to 1928. when it was demolished for the purpose of building Hotel „Pracat“. Sources quote its dimensions as 9 x 9, height 16 metres, with the upstairs entrance doors and the cistern on the ground floor.

### **3. TOWER ON BENEŠIN RAT**

- Semi-circular in shape, diameter 5,30 metres. Its position above the cliffs allows a view towards the open sea. It was quite well preserved up to the Second World War, but then the Germans demolished it during the construction of a cannon battery.

### **4. TOWER IN THE COMPLEX OF COUNT'S PALACE**

### **5. HOUSES WITH FORTIFICATION ELEMENTS**

- Written legacy mentions houses with loop-holes, machicolations for defence of gates or flanked balconies. It is known that the Zamanja-Pavlina villa had machicolations in the area of roof crown that fell down in the earthquake of 1979, while a fortified balcony still stands in Getina street.

### **6. FORTIFICATION WITHIN THE COMPLEX OF THE MONASTERY**

The most recent considerations of the space within the monastery complex of Our Lady of Špilice (Gospa od Špilice) indicate the presence of a monastery building situated on the very south-west corner, constructed before the year 1483. The walls are considerably thicker than those of the monastery, while the space is square. Walls suggest the presence of embrasures which was linked with the sea by an opening in the shape of an arch. That leads to the conclusion that it is a question of an earlier citadel placed on the most important strategic point of the settlement.

### **7. FORTIFICATIONS OF THE FRANCISCAN MONASTERY**

- The entire monastery complex is surrounded by a high and sturdy wall, forming a terreplain on the coastal side and a parapet with loop-holes. The entrance, i.e. its entire eastern wall was constructed as proper fortification gate with a number of fortification elements that would surprise a sudden enemy penetration. It forms a passage through a small arched tower where an extend-

ed terrace bears a crown with embrasures and loop-holes. The southern corner is also fortified by a turret. The fortifications were built in the year 1516.

#### **8. FORTRESS OF OUR LADY OF ŠPILICE (Gospa od Špilica)**

A fortress that could be described as a bastion, lays in the north-eastern space of the Franciscan monastery complex. It boasts towers with oval projections on its three corners, the so-called ears. The north-eastern part of the fortress houses the original fortress which is now used as a donjon.

The fortress entrance is placed on the western side, high on the floor level. Another gates have been opened in the 19th century, together with triangular barrier with loop-holes. The access to the original tower – donjon, was also placed high up so that the only way to enter was by ladders. The first fortress was constructed in 1592, when the brotherhood of Our Lady of Šunj (Gospa od Šunja) was allowed to build a fortress at its own expense for the sake of protection against pirates. The fortress had never been completed. During the French occupation it was fully armed, while the Austrian-Hungarian monarchy disarmed it and deserted it.

#### **9. TOWER BY ST. CATHERINE'S MONASTERY**

- This a high four-cornered tower, dimensions 9,5 x 6 metres, the height of a four-storey building. The present state suggests that it had a well-formed crown with machicolations and a roof, representing the modern fortification of those days, judging by the type of loop-holes and the manner of defence against smaller enemy groups. It certainly functioned as a strong point of defence of that part of the settlement and a refuge for the local inhabitants, judging by its space, large cistern and a larder. It could be dated to 16/17 centuries.

#### **10. St. ROCK'S TOWER**

- Reconnaissance fort in the shape of a chapel-tower is situated on the northern side of the island in front of the former stone-masons' settlement on the locality Petrali. It was built on an elevated position – cliff. A chapel in a vaulted space is dedicated to the saint. Above it is a simple crenelations with rectangular parapets to be accessed by a ladder. An eventual disembarking from the northern side of the island could be monitored from the tower. It was built in the second half of the 15th century. It is in the style of the late-classical tradition when the churches/chapels were in the function of observing and reporting on the state of safety and security in the area.

#### **11. SABO'S HORSE-STABLE**

- A former defence building in the function of the main and permanent observation point stands high above the settlement of Lopud on its northern side. Its almost rectangular shape indicates its fortification form which was open from all sides by big windows. The space on the upper floor served as an observation point and residence for the Head of the Guards, while the space below was assigned to the sentry crew. Dating: 15/16th century, in function till the construction of the fortress Sutvrač in 1563.

#### **12. THE TOWER BY THE CHURCH OF OUR LADY OF ŠUNJ (GOSPA OD ŠUNJA)**

- The existing belfry of Our Lady of Šunj, shaped as a triple belcot was built in a regular and nicely dressed stone in the shape of a tower. Archives mention it as a tower that served for the defence against pirates, which controls by its position the maritime traffic and the entire Bay of Šunj. It could have been a fortified bell tower, often a frequent case in these parts (bell tower in the Franciscan monastery and the one in Slano). Judging by the manner of construction, this fortification can be placed at the very end of the 15th and the beginning of the 16th century,

#### **13. THE TOWER ABOVE ŠUNJ (KULA NAD ŠUNJEM)**

- Another smaller observation tower in a purely rustic style stands above the Bay of Šunj, below a former settlement on the eastern part of Ivanje Hill (Ivanje brdo). With an almost rectangular ground plan and the height of one storey building it had partly utilised some elements of architectural ornamentations from a mansion in window openings. The open seas are monitored from the tower. According to the type of construction it can be dated to the 18th century.

#### **14. THE FORTRESS OF SUTVRAČ**

- The two saints- medicine men - Ss. Cosmas and Damian. A grandiose fortress in the shape of a bastion stands on the north-eastern top of the hill Polačica, high up above the settlement, dimensions 50 x 25 metres. It is placed in such a way that it dominates the whole of the Koločep Channel, from Vratnik to Gruž, as well as a part of the Mljet Channel with the open sea. The interior is mostly filled in with live rock or strewn material. The space for the sentry crew with appertaining premises is in the western part of the fortress, right by the entrance. Fortress bastions are in the shape of irregular quadrangle (two), semicircular and quadri-circular. The construction was started in 1563 at the site by the church of Ss. Cosmas and Damian, where the inhabitants of Lopud gather, as the documents have it, for the sake of defence against the pirates. In the year 1638 the Dubrovnik Authorities granted permit to the brotherhood of Our Lady of Šunj (Gospa od Šunja) on the Island of Lopud to build the existing fortress of Sutvrač according to the model depicted, under the condition that the Small Council would assist in the construction while the brotherhood would provide constant guarding of the fortress

- Sutvrač was deserted following the partial construction of the fort of St. Mary of Špilica (Sv. Marija od Špilice), while regaining its function only briefly at the time of the French, i.e. from 1806 -1814.

In the light of the above, it can be concluded that the Island of Lopud with its towers and fortresses stands out considerably from the rest of the Dubrovnik Republic. Unlike the City, Ston and Cavat, where he state built the fortification systems necessary for the defence of freedom and independence, the inhabitants of the islands or the community – rural or sacral – built individual towers for the defence of the population and/or a particular property, but not in large numbers. Lopud, on the contrary, could be said to abound in these, the reason being that from the 15th century to the end of the 17th century it was exceptionally rich so that its inhabitants, through the nobles, rich citizens and the brotherhood of Šunj were able to cater for their property acquired through hard work.



### **The Island of Koločep**

- Kaštio: A location called Kaštio above the port of Donje Čelo, contains remains of construction and vaulted spaces, ruins of a former fortress;
- Tower in Donje čelo:
  - A quadrangular tower with a four-sided roof frame bearing four machicolations on the top, stands on the road leading from Donje čelo to the interior of the island, at the very spot that enables control of the ports and the road. The tower is of a characteristic type of building in the period of 16th century (built in 1571, at the time of the Battle of Lepanto), constructed throughout Dubrovnik region for the purpose of defence against pirates.
  - The Tower of Small Toreta (Turret): These ruins are situated at the foot of Ivanje Hill (Ivanje brdo), at the distance of some 200 metres from the sea, used for observation.

### **The Island of Saint Andrew**

- A Benedictine monastery stood on the highest elevation of the islet, on the location of a lighthouse. It was established in the 13th century, and deserted in the 18th century. A quadrangle shaped tower stuck out on the western side of the monastery, by a high abyss above the sea; the outer measurements 3,70 x 3,60 metres. The foundations are still preserved. The tower was linked with the monastery building by a draw bridge so that the monastery inhabitants could find shelter there. The lighthouse was built in 1873, with subsequent reconstructions in 1896 and 1914. For that purpose, well-preserved monastery and tower walls were pulled down.

### **The Daksa Islet**

- This is the smallest of the Elaphite archipelago, covering an area of 5 hectares.

A defence tower rises by the façade of St. Sabine's church of the earlier Franciscan monastery on Daksa Island. It was built for defence of the church and the monastery. The interior ground plan is 3,40 x 4,20 metres. The only entrance in the former church was through that tower, which once had served as a bell-tower.

The entrance is at 1,30 metres above land level and the church pavement so that entry was by a staircase, once detachable, into the tower, and from there by a staircase down to the church. The monastery on Daksa was established in 1281, while the tower is of a later date, most likely from the second half of 16th century, like most of towers built for defence purposes.

During the French occupation of Dubrovnik, the church complex was transformed into gunpowder-magazine. At that time, the church nave was elevated and the tower lowered, which undoubtedly disturbed the scale and the aesthetic impression of the complex.

### **The Pelješac Peninsula**

The original settlements on the peninsula were not built by the sea, due to the danger of pirates, but inland (Pre-historical Nakovana)  
A group of twenty-seven historical hamlets between Podgorje and Viganj on the

south-western part of the Pelješac Peninsula are settled in a broken row on the southern slope of St. Elijah Hill (Sv. Ilija brdo), on the boundary of the rocky part of this highest hill on the peninsula and the gentle slopes covered in fertile soil filled with vineyards, olive groves, citrus fruit orchards and other agricultural plantations.

These historical hamlets of the present-day coastal settlements of Viganj and Kucište form the original settlements that were established away from the coast for safety from pirate intrusions and plundering. Still, they are all oriented towards the sea as it was the source of survival. The majority of these settlements were built in the Middle Ages and so are mentioned in the 14th century on the occasion of the Pelješac Peninsula joining the Dubrovnik Republic. The Republic had the intention of constructing the fortress of Trstenica, but it gave up the idea because of the construction of the city walls in Ston. By erecting the complex of the Franciscan monastery in Podgorje in the 15th century the Republic achieved an ideal strategic point high up so that it was possible to control not only the Pelješac Channel, but also Korčula under Venetian rule.

Orebić: An Orebić family built a fortified tower called Kaštel for the purpose of defence against pirates. It has been preserved, with 3 rows of houses by it and two parallel, completely straight streets, which were closed by gates, all with the aim of a better defence of the new settlement. Kaštel was repaired in 1568. Pijavičino: Pijavičino is situated on the edge of Župa Pelješka, a fertile valley among the hills. These peripheral regions of the Republic witnessed building of defence towers, like the tower Zlatarić, on nobles' lands or their mansions. The defence baroque fortification, quadrangle in shape, was built in 1625 by a noble, Cvijeto Zlatarić. The inscription reads: "built for himself and his descendants out of love for green groves", intending, without doubt, to honour the beauty of the scenery but also to protect his property and provide refuge for the neighbouring population.

The roof construction is dilapidated and in need of repair.

Donja Vručica: The Ranjina Tower built in 1583;

Brijesta: The regions of the Republic that were not well protected are often supplied with some fortified building, which could, at the moment of danger, serve as a refuge and for defence. One of those is the tower in Brijesta from the year 1617 on the Kabužić land, on the northern side of the peninsula.

Osobljava: A fortification on a high cliff by the sea, ground-plan 11 x 5 metres

Stinjiva: Remains of the observation tower

The village of Doli: The tower Milić is in Doli, a small place in Dubrovačko primorje, some fifty kilometres from Dubrovnik to the west. It must have been important strategically, due to its position on a hill slope, above a deep and small bay and a convenient port, especially as that is the location of a secondary road, an easy approach to the interior of Primorje and further on inland. It could have been an easy route for an enemy (plunderer, aggressor) to penetrate inland from the sea, and vice versa. Likewise, illegal trade could be carried out without much control – which was of great significance since Primorje, among other regions, was under very strict and special custom regulations of Dubrovnik Republic. Namely, valuable goods, like salt, cattle and dairy products, textiles, leather goods and building materials in clay, as well as metal products, were under strict custom rules. Nobody was allowed to leave the city with such

goods without paying the appropriate export taxes. The same rules applied to import and trading with prohibited goods. The mere existence of these secondary and fast roads into the hinterland and further inland, provided crafty local tradesmen with an opportunity to gain good profit and get rich quickly at the cost of a certain risk.

Quadrilateral tower from the 17th century had been reconstructed and used for housing purposes.

Brsečine : A house-tower Zuzori stands out on a plateau below the village of Brsečine, above the coastline (later called Ohmučević/Bizzaro). Four watchtowers with loop-holes stick out from consoles. They served for defence, like the house-tower on that strategically important point for defence of property and control of the sea.



## GLOBAL TRADE AND POLITICAL LANDSCAPE

In line with its geopolitical location Dubrovnik was a settlement, a town, community, and finally a state over the centuries, which was oriented towards seamanship and trade, initial points of its intense economy and development overall. It was a strong factor in the economy of the Balkans and in the Mediterranean, with developed trading connections and seafaring reaching out to the Atlantic and Indian Ocean.

Political and economic activities of the commune of Dubrovnik, and then the Dubrovnik Republic were inseparable and mutually determined in wide European and Mediterranean spaces. Economic potential has given it a full weight for a concrete political action, which has skilfully secured the existing and opened new routes to its economic prosperity.

The geographical fatality forced people of Dubrovnik not only to think profoundly from the earliest times, but also to blaze their paths, deeply conscious of the importance of trade for the existence of their city and state. People of Dubrovnik have carefully been building and maintaining the network of their routes for centuries, covering it with a complex system of diversified contracts and agreements, privileges and coercions. We can learn from letters, which were sent far and wide by the Dubrovnik authorities to both, their friends and enemies, about hundreds of lesser or greater interruptions of those thin threads spread all over the seas and overland. Perhaps, one day, suffering of Dubrovnik merchants in all trading posts of the Balkans, or stations near mines, on board the ships in all ports of the Adriatic will be found out from these documents, perhaps the fate of Dubrovnik merchants in prisons tortured to death, waiting for various rulers to reach a settlement with their City could be revealed.

Let's start with the oldest, known facts: first records about overland communications in the area of Dubrovnik, and specially those between Cavtat and Dubrovnik date back from the Classical Antiquity, the Roman period. The two main communications ran across this space, one along the coastline, and another towards inland. The first coastal Roman road ran north-westward to Narona, Salona, Jadera, Senia (Senj), Tergeste (Trieste) and Aquilea, further towards Rome, and south-eastward to Risinium (Risan), Butua (Budva), Vlcinium (Ulcinj), Scodra (Scutari) and further to Thessaloniki. A landward thoroughfare went towards Trebinje and further inland in the Balkan peninsula towards the Danube basin. (Podunavlje).

From the very beginning of the Middle Ages the traffic course towards inland ran towards Trebinje stood out as very important: it is very probable that it

was identical to the track of road from the Antiquity passing along until the very beginning of the 20th century. Namely, that was the Dubrovnik road, a well known caravan route, which departed from the port of Dubrovnik towards Trebinje and further to Bileća, Gacko, Čemerno, Tjentište, Sutjeska and Foča. Therefrom it bifurcated, one road ran to Pljevlja, Novi Pazar, next along the valley of the Ibar River to Kopaonik, Prokuplje, Niš, Sofia to Constantinople. From Novi Pazar it ran to Skoplje and Thessaloniki.

Apart from this road, known as the Dubrovnik road, there was the second road, the so called Neretvian road, which ran north-westward: along Popovo polje to Domanovići, Gabela, Čapljina, Mostar, Jablanica, Konjic, Visoko, Sarajevo. From Foča it followed the valley of the Drina River to Mitrovica and Buda.(present Budapest)

The third south-eastern road went to Risan and Kotor, and along the valley of the Zeta River coastal area to the mouth of the River Drim and alongside it to Prizren and Skoplje.

Nowadays when we are accustomed to cover distances by planes and cars, it is hard to understand the true significance of speed which the messengers of Dubrovnik were supposed to cover between particular mines and outposts to the city, measured by days. E.g., it took six to seven days to cover the distance between Dubrovnik and Srebrenica on the Drina River in the 14th century, and it took 15 days to reach Constantinople. The above quoted hard geographic travel directions partly followed some natural pathways: valleys and riverflows, but they have predominantly and bravely overcome these natural obstacles. Commodities such as: corn, cattle, leather and slaves travelled these roads. Bosnian and other slaves from inland were exported via port of Dubrovnik to the ports in the Mediterranean.

**Political and economical activities** of the Dubrovnik commune are inseparable since they were mutually determined.

During the 12th century Dubrovnik entered into a number of trading and political treaties with other towns- ports on the Mediterranean, as well as with the rulers of nearby regions, who ensured them free trade and navigation under certain concessions. The first treaty was signed with the city of Molfetta (1148), some time later with Pisa (1164), Ravenna (1188) and Ancona (1199). Citizens of Dubrovnik were approved privileges in Bosnia in 1189 by Kulin ban's charter, while a document on free trade throughout Byzantium and Bulgaria was issued by Byzantine emperor Angelos .

The charter of special importance on rights of free trade across Bulgaria was issued by emperor Ivan Asen II in 1230, by which the citizens of Dubrovnik reinforced their trading monopoly in the wider hinterland of the Balkans, and ensured boosting of their overland trade which went along with development of maritime affairs. A number of trading treaties testify to the fact that Dubrovnik already traded with Egypt, Tunisia and other regions of North Africa during the 13th century.

During the second half of the 13th and the beginning of the 14th century citi-

zens of Dubrovnik appointed their first consuls who took care of organization of trade in their colonies in the Balkans. Merchants of Dubrovnik were intermediary in trade of various kinds of textiles, timber, cattle, livestock and agricultural products, salt, minerals, silver, gold and other commodities. Due to the growth of trade credits and financial transactions Dubrovnik started minting coins in its own Mint (The Sponza Palace) since 1337. In those days the City had a large Fontik (granary), and a naval Arsenal,

It is worth mentioning the kinds of commodities they traded with, especially in maritime trade. E.g., Dubrovnik in the 13th c. was trading and doing business almost in all ports on both shores of the Adriatic. Maritime trading liaisons unfolded in several circles: radius of the first circle stretched all the way between Omiš to Lezhëe in Albania, comprising the islands of Brač, Hvar, Vis, Korčula and Mljet. According to the Statute of the Customs House of the City of Dubrovnik (1277) import-export customs tax had to be paid on woolen, cotton, silk fabrics, sheets, cloth, bedspreads, tanned hide, birds of prey trained for hunting, (falconry) meat, sheep, goat and cattle trading, oil, manufactures made of gold, salt, fish, flower, corn, fruit, vegetables, milk or any other kind of merchandise (mercationes). The second circle comprised the entire Eastern Adriatic coast from Istria to Valona, and/or Epirus. People of Dubrovnik also fostered tight links with Croatian coast and cities of Zadar, Šibenik, Split, Trogir, Omiš, Hvar. Merchants of Zadar sell corn and salt to the Ragusans, Split merchants used to sell linen, cheese, wine, boats; The Islanders from Korčula sold cheese, livestock: sheep, goats and cattle, boats.. People of Dubrovnik imported wood via Senj, so a number of them have permanently moved to those cities and towns, while citizens of Zadar, Trogir, Korčula stayed in Dubrovnik, as well as individuals from Nin, Rab, Senj, Krk, Šibenik.

Since the area spreading north from the line Dubrovnik-Ancona was submitted under Venetian economic supervision in the 13th c., Dubrovnik traded most intensely with Apulia, and exported to Italy: in the first place slaves, wax, animal hide (buffalo hide), wool and wollen manufactures, fur and groceries. Corn, broad beans, barley, cloth, linen, vessels were imported in great quantities. People of Dubrovnik were sailing, trading and doing business in the Mediterranean spaces, and the expanse and range outside the Adriatic is referred to Byzantium, Asia Minor, North Africa, and/or those states that emerged from establishment of Latin Empire in the Strait of the Dardanelles, and the Crusaders' states in the Levant.

Business activities of Ragusans in the lands of the Balkans were manifested in the advantage of Dubrovnik's organization of trading and monetary transactions, but in particular with their versatility: trading, joint commercial affairs, customs duty, credit operations tributes, bribery, transportation business, services offered to Dubrovnik caravans, exploitation of local workforce in various forms.

Due to a great demand for silver and lead in the European market exploitation of Bosnian and Serbian mines in the first half of the 15th century was intensi-

fied. In Bosnia it took place in: Fojnica, Srebrenica, Ostružnica, Olovo, Kamenica, while in Serbia it was carried out in: Novo Brdo, Rudnik, Trepča, Priština. In those places the nobles and citizens of Dubrovnik were engaged during extended stay.

Ragusans managed to concentrate the major part of boosting trade services in metal ores in their hands, they also appeared as organizers of production, mine lease-holders and sometimes as pit owners. Forming the system of their colonies dispersed next to the junction of the caravan routes, close by administrative and trading centres, and the mines, they managed to control the entire commercial traffic in these spaces. By its powerful regulations the Dubrovnik Republic channelled the biggest part of its business into their home-city port wherefrom ores were dispatched to Florence (via Ancona), Venice, as well as, to the Spanish and French markets. With intense Turkish conquests of the area in the second half of the 15th c. a strong swing of these activities was paralysed; Ragusans affirmed themselves as distinguished merchants in the international sphere and acquired substantial capital which was crucial for further growth of other branches of their economy.

One of those branches was undoubtedly their textile industry. Business activity of trading fabrics in the Balkans encouraged the Dubrovnik authorities to upgrade cloth craftsmanship with a series of measures, having started from the last decades of the 14th c. The first dye-works for dyeing fabrics was open in 1398, a manufacture at Pile, the suburb which was gradually becoming an industrial, production zone of Dubrovnik within an easy reach of the city, and some time later construction of dye-works in Rijeka Dubrovačka, Šumet and Župa Dubrovačka followed. Foreign experienced craftsmen were firstly invited: along with a number of Italian masters and some German weavers arrived in Dubrovnik, later on these workshops were taken over by local people, while production was stimulated and protected by bonuses, customs and other kinds of allowances.

Spanish ("Catalan") wool, as the best raw material for fabrics which secured market at its best was stimulated, and Ragusans manufactured high quality fabrics. A foreigner-eyewitness made a note (...) no one has ever heard that fabrics were made in Illyricum from sheep's wool from Valencia and Tortosa and it is at present being made in Dubrovnik (F.de Diversis). That fascinating idea speaks about "the true beginnings of modern Dubrovnik" (J.Belamarić), created ex nihilo - out of nothing due to the establishment of modern and profitable economy, linked to cloth industry, which was followed by the water supply conveyed to the city, the construction of aqueduct, which "from village of Šumet brought so much water, that the rolling (felting)works and dye-works were sufficiently supplied so that fountains could be erected in the city itself" (I.Stojanović). This was also a story of nobility that was predominantly taking part and making money in clothmaking business, as well as its citizens, but also a lucrative deal was acquired by the state.

According to budgets (J.Tadić) during the first half of the 15th c., approx more



than 25 tons of silver, the value of which was over 500.000 ducats per year was exported from Dubrovnik from the Balkan mines to the West, while the exports value of Dubrovnik cloth inland reached the value which was not lesser than 250.000 ducats per year. Before the end of the 15th c. there were 7 million ducats in the Treasury of the state. The biggest weakness of this productive branch was its dependence on foreign raw material; when in the sixties of the 15th c. the abundant traffic of silver stopped, and money earned until then served to obtain the Catalan and other quality wool, the crisis broke out, in which the last straw was demolition of cloth workshops in 1463, because of Turkish danger in the year of the fall of Bosnia. Despite consecutive attempts of revitalization of this industry during the 15th and 16th c. the lasting results were not shown since the Ragusan *ars lanæ* could not cope with the famous Venetian and Tuscan competition any longer.

**Production and export of salt** was a lasting factor of economic power of Dubrovnik, as its political influence extended in the hinterland. The monopoly of salt, that the Republic intended to maintain on a wide stretch of the coast, from the Neretva River to the Drim River, has turned its trading courses of the Balkan lands towards Dubrovnik and thus they were brought to dependence of its own kind. Since its own production from salt pans of Ston was insufficient, the government organized imports in order to save the monopoly. But, even that monopoly was not an easy matter to retain and maintain. It has challenged conflicts with neighbouring rulers of Hercegovina and Bosnia, and also with Turkey when it managed to get the hinterland of Dubrovnik (after difficult negotiations profit from salt trade was divided in proportions: 1/3 to Turkey, and 2/3 to the Republic); it was specially difficult to retain monopoly at the mouth of the Neretva River. In the second half of the 15th c. Venice aggravated the situation aggressively, furthermore, Dubrovnik had intentions to obtain permit from Turkey that even Venetian salt could also be sold at the mouth of The Neretva River; in that relentless rival fight, Dubrovnik was caught in a "clinch" but it did not demonstrate only its vital economic strength, but also its capability of having its interests and independence respected.

The current revenue from the salt pans of Ston is marginalized, despite its exquisite quality and it doesn't significantly "penetrate" to the Croatian market, although the salt pans are not only a historical artefact, but also an operating plant and important economic resource even today; in particular, this is referred to the possible establishment of "museum of salt" in Ston.

#### **Production and export of arms:**

Recent surprising archaeological discovery and presentation ( 2005-2011) of a well preserved historical foundry from the 15th c., which functioned up to the 17th c., represents a unique archaeological complex of an industrial zone which, as much as we know, nothing of the kind can be compared in Europe. In front of Gornji ugao tower (Upper Corner), beneath Minčeta fortress, entirely located within the city walls in the historical core of Dubrovnik, on a strategically, and in terms of security, brilliantly chosen location remains of the architecture of a foundry with all its original facilities was excavated. These finds

comprise: the pertaining foundry, casting and moulding plant, water basins, a channel with wells for settling residue or sedimentation and a sand depository. Parts of four stone ovens out of which three served for smelting metal and one for glass or wax were discovered in this foundry.

This exclusive find testifies to the fact that the Republic established a contemporary very important industrial – production of arms, used not only for its own purpose but has also exported all over the Mediterranean and the Balkans, and thus has become among rare producers of fire-arms.

Although, for now, we do not dispose of archival documents concerning quantity of arms exports and state revenues, the foundry is an excellent attraction for chance visitors and tourists, since the modern City of Dubrovnik is based on this economic monoculture.

### **Agricultural production**

The main agricultural product of Dubrovnik was wine and olive oil, and its production has also rendered exports possible. Fertile fields on the islands of Šipan, Lastovo and the Peninsula of Pelješac, sometimes supplied with water flow: Konavle, Župa, Stonsko polje (Ston field), were agricultural zones, which were limited in relation to the number of inhabitants and were expressly placed under particular agricultural land use.

Since the territory of the Dubrovnik Republic was not suitable for a more intense agricultural development, the government took a special account of corn supplies, and would sell corn from state reserves during shortages at the price which was lower than in free sale.

**Craftsmanship activities** were very developed. Workshops for production of fabrics, glass and soap were already established in the 14th c. Goldsmithing was specially advanced due to a special interest for such products in Turkey. Other crafts were also developed like carpentry, glass-making, manufactures of hide and wax, and ropemaking. There were brotherhoods and guilds of craftsmen such as leather-workers, tailors, goldsmiths, cloth-makers, wool-clippers, shipbuilders, carpenters, coopers and the like, which protected their interests and offered assistance to its members.

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The Dubrovnik Republic was at its peak during the 15th and 16th centuries due to its increasingly successful emancipation and affirmation as the state subject in the international community, its territorial expansion, final integration of its territory and a stable trend of economic prosperity, but also realizing valued attainments in various branches of cultural and artistic creativity.

Trade and maritime affairs have been strongly developed during that period of two centuries, the maritime trade in the Mediterranean and overland in the Balkans, in particular, while Dubrovnik also possessed a great capital in Italian banks and credit institutions.

Such a development is even more significant for it was realized under entirely

unfavourable circumstances with regards to the foreign politics: Venetian expansion along the Adriatic coast and its continuous "prowling" on Dubrovnik – with a continuous advancement of Turkish forces towards countries of the west Balkans and the Danubian Basin (Podunavlje), and among them small Dubrovnik, almost as a rule, in the middle, amongst clashing interests, so that the Republic was permanently in a situation as the ship caught in a storm on the high seas – as the Dubrovnik authorities has once picturesquely described the position of the Dubrovnik Republic. But, the ship was under good command, not only due to the seafaring skills. The artistry of diplomacy, was of equal importance indeed, along with abundant favours of Dubrovnik fleet in commercial and war necessities of Spain. Above all, the skilful trade of intelligence services of the Republic dealing with everyone, although it has never developed its independent intelligence service, as that activity was the task of its consular and diplomatic services under vigilant eye of the Senate. Aside from "gifts" to lower and upper Turkish state officers- bureaucracy, and abundant haraç- the tribute, as well as other services, such as the composition of multilateral protection of the Republic has successfully functioned, and even more so against Venice and Turkey, their immediate danger. An extraordinary attainment of Dubrovnik merchant marine and seamanship stood out in a sequence of difficult and complicated international situations and appreciation for its neutral position in so-called "Holy Leagues", i.e. war campaigns, undertaken by western, Christian forces against Turkey. General international constellation in the Mediterranean enabled its government to live with everyone in good relations, nevertheless, people of Dubrovnik had to give their contribution to the struggle against Turks, and that was not an easy matter for the Republic either, since they were subject of paying tribute to the Turkish Empire as non-Muslims. Thus, with consent of the pope they could trade with Turks, with the exception of trading with such commodities that could serve Turks at war, and it was simultaneously with the consent of the Porte that they could export those commodities from the Turkish regions which were not allowed otherwise (e.g., corn).

The main branches of Dubrovnik economy were trade and maritime affairs. A strong merchant marine was created, a number of commercial links were established, as well as many consular and diplomatic representations in countries of southeastern Europe and those in the Mediterranean. Ragusans have become "an intermediary trading force", they used to buy raw materials and other products in the regions of the Balkans, in other words, in Turkish Empire and were selling them in the West, while they were mainly selling finished products from Western Europe in Turkish regions. Thus they realized a high profit in the conflicts of third states, when the vessels transported commodities to the warring parties. Trading was primarily a profession in which Ragusan patriciate was engaged.

Let us illustrate the above mentioned and show concrete geographic trading and maritime "routes".

Well, the maritime trading expansion of the Republic, specially in the course of the 16th c., was extended throughout all expanses in the Mediterranean Sea: from the Black Sea ports, across the entire Eastern and Western Mediterranean, and further to the Atlantic reaching Anvers and ports of England. The scope of this expansion is illustrated by a network of Dubrovnik consulates:

from 20 around 1500, it has increased in number to reach 50 in the second half of the 16th c.

A small part of the overall widespread lucrative maritime trade was carried out in transit via port of Dubrovnik. The main part, through which great profits were accumulated, was carried out by doing business in foreign ports. Those activities have included not only trade and transportation, but also monetary affairs, and living speculations in maritime insurance for Dubrovnik men of affairs. Dubrovnik has introduced insurance into their maritime system, e.g. The first preserved agreement on maritime insurance was from 1395., while Ragusan Law on Maritime Insurance from 1568 was one of the oldest enacted in the world. Maritime and intermediary trade and entrepreneurship was fostered in these relations: Varna-Venice, Aleksandria-Messina, Aleppo-Naples, Messina-Marseille, Constantinople-Sicily, Negropont-Spain, Crete-London and the like. This is illustrated by a specimen of a contract according to which Ragusan vessel should be arriving to Rhodes to load cargo, and to accomplish its dealings sail to Famagusta, Latakia, Tripoli or Beiruth, and Messina at the end, but in such a manner that its final port of call could be Livorno either Genoa or Marseilles. Dealings as such amongst foreign ports during the 16th c. used a still existing Mediterranean trading business activity, which stimulated shipbuilding of big Dubrovnik trading vessels, operation and growth in domestic shipyards – and all that brought about the grandeur and power of Dubrovnik merchant marine, the principal economic strength of the Republic.

In this period Dubrovnik shipping for navigation out of Adriatic towards the ports on the Atlantic, was slowed down in its further advancement, but in the second half of the 15thc. that rate of growth was faster, what is indicated by the disapproval of the Venetian authorities for Dubrovnik had such a great number of vessels on its disposal. From henceforth the number of bigger ships for navigation in the Mediterranean and ocean continuously increased for navigation in the Mediterranean and ocean. In the seventies of the 16th c. Dubrovnik fleet was among the strongest in the Mediterranean. It is estimated that in 1540 its fleet was composed of about 130 vessels of cca 15.000 “carro” total deadweight, while in the seventies in the same century, during its heyday, there were about 180 ships for long distance navigation, of 36.000 “carro” deadweight, and total value of cca. 700.000 ducats. They had about 5000 crew members. Then the Republic had 100 master-shipbuilders at its disposal (shipyard in Gruž with its famous dockyards was founded in 1525), while a share in other centres of the Republic should not at all be bypassed, such as the Island of Lopud, the most significant in number of shipowners and shipbuilders, followed by the islands of Koločep, Šipan, Lastovo, and Slano on the mainland; strengthening of maritime affairs on the Peninsula of Pelješac began during the 16th c. All in all, an enormous maritime potential, it was the epoch when the greatest economic strength of the Republic was realized.

Ocean going ships of Dubrovnik sailed across the Mediterranean Sea, from Spain and France, the North African coast, Italian ports, to the Greek and the Black Sea ports. They sailed in the ocean to the Portuguese, Flemish (Antwerpen), German (Hamburg) and English ports (London), even as far as India,

where its colony in Goa was. Dubrovnik merchant marine was then equal to the Venetian merchant marine, and somewhat weaker than Genoese merchant marine, which was the strongest in the Mediterranean in those times. During its "golden" centuries in the (15th, 16thc.) Dubrovnik was the most important maritime trading emporium beside Venice and Ancona.

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The earthquake in 1667 inflicted enormous damages and losses upon the Dubrovnik marine.

In the aftermath of the earthquake the maritime trade was focused at the ports of the Adriatic Sea, into which 75 remaining Dubrovnik ships were included.

Consulates

The Dubrovnik Republic established its consulate in Smyrna a few months after the Great earthquake, next one in Constantinople in the year 1688, and already in mid. 18th c. it had around 50 consuls and general consuls, e.g., more than Austria which had 37 consular representatives in those times. Consequently, from mid 18th c. the Republic had apart from 50 consuls mentioned, some 31 vice-consuls, in total 81 consular representatives.

Ruđer Bošković was one of the most renowned, citizens of Dubrovnik in the 18th c., a prominent scientist: mathematician, physicist, astronomer, duly appreciated in European circles, despite his obligations and life spent in foreign countries, he was continuously maintaining close relations with his homeland. He has been informing the government of Dubrovnik about political and other important issues in the world for years, from 1755 until 1783 reporting his analyses, attitudes and proposals, and quite frequently at the request of the Republic he acted as a diplomat protecting and promoting interests of the Dubrovnik Republic. The exchange of encrypted diplomatic mail was carried out in Croatian language! (to many people it was not understandable)

Soon after the earthquake consolidation, the number of ships was increased anew, out of which 60 ships were operating only in cabotage in the Levant. In the mid 18th c., during the time of the second greatest rise of Dubrovnik shipping and trade, the number of Dubrovnik big ships has reached up to 280 out of which there were more than a hundred ships operating with other countries. In the last ten years before the fall of the Dubrovnik Republic, the maritime traffic and corn trade from the ports in the Levant and the Black Sea ports towards the western Mediterranean was intensified, thus, in the last years of its existence the Republic had 227 registered trade ships, for the most part those of medium deadweight.

In order to facilitate navigation and maritime trade for its ships, the Ragusan Republic took over an obligation in 1745 that each of its ships sailing out of the Adriatic Sea, should possess a Turkish permit, so-called ferman, apart from other documents, The Ferman has granted defined privileges Dubrovnik could enjoy in Turkish ports and at the same time it represented the protection against pirates in the Barbary Coast of North Africa.

Alexandre Lemaire, the French consul in Dubrovnik, who was otherwise unbe-

nevolent towards the Dubrovnik Republic, and that was the reason why he left Dubrovnik by force in 1764, sent a report to his government: One could say, in view of the littleness of the Republic, that the seas are covered with its ships and the banner of St Blaise well received and recherhée in all parts of the world.

Nevertheless, the discovery of Americas and other regions has gradually caused shifting of world maritime affairs and trade to the Atlantic, and later to the Indian Ocean, what has marginalized the Mediterranean Sea and the states such as the Dubrovnik Republic and the Republic of Venice, oriented towards it. At the same time the maritime states that were not in the Mediterranean, like the Great Britain and the Netherlands, were given privileges apart from other documents for maritime trade needed in the Eastern Mediterranean by Turkey, what has contributed to the weakening of Dubrovnik maritime affairs, and its economy overall.

When the Dubrovnik Republic ceased to exist in 1808, in other words, at the Congress of Vienna in 1815, in formal legal terms, the Dubrovnik shipping has greatly lost of its importance. Already a year earlier, the French occupational forces issued an order to all Dubrovnik ships to flutter the banner of Napoleonic Italy, instead of the banner of Dubrovnik in the future.

Nevertheless, Dubrovnik has never forgotten its shipping and maritime and trade history, for it has been and has remained its strong branch of economy to this day. Therefore, the present existence of a strong shipowner even in Croatian proportions must be emphasized with pride: its title is - the Atlantic Shipping d.d. Dubrovnik.

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By the Decisions of the Congress of Vienna in 1815 the area of the former Dubrovnik Republic was appropriated to the Habsburg Monarchy up to 1918. Dubrovnik kept expanding, physically absorbing several suburban settlements in subsequent state entities. Introducing electrification and upon construction of the railroad junction with hinterland and Europe in 1901, the port of Gruž became the most important one in the Southern Adriatic. Railroad traffic was cancelled in 1976, so the consequences arised and were reflected upon the traffic in the port of Gruž, since Dubrovnik has become isolated towards inland. In a number of building interventions parts of the city outside of the city walls were urbanized and connected and in 1910 the city tram transportation was introduced (discontinued in 1970).

Upon opening of the first hotel "Miramare" (1868) and a number of smaller apartment houses, construction of the first luxury hotel "Imperial" at Pile (1898) designated the beginning of modern tourism development, which has become its sole economic branch of an uncontrolled growth and quality.

## THE SYSTEM OF URBAN INFRASTRUCTURE OF THE CITY AND TERRITORY

The greater area of Dubrovnik comprises a narrow coastal belt of 250 km, stretching from Klek in the west to Sutorina and cape Prevlaka in the east, but the pilot area which is being considered in the study "Identification and Valorization of Natural and Architectural Heritage of the Dubrovnik Area in the Spatial Context", is concentrated on the inner area of Dubrovnik: the historical core within the city walls, the City, contact city zones or districts i.e. parts of the City including Pile, Ploče, sv. Jakov (St. James), the three Kono Streets, Boninovo, Montovjerna, Gruž, Lapad, with the massif and plateau of Mount Srđ, and lastly the wide ring of the territory surrounding the city, including the area of Rijeka dubrovačka, Šumet, Bosanka, Brgat and parts of Župa dubrovačka.

Dubrovnik villa architecture will be given a due consideration which in quality and quantity represents not only a powerful segment of the national and European cultural heritage, but it could be a part of the UNESCO family per se. **Therefore, in the said zone covering the landscape benchmark system and physical condition of the "structure" with a concentration in the layers of the building at the time of the Dubrovnik Republic will be primarily considered, the value of these layers, which, in turn, relates to the landscape and the cultural layer, followed by a participatory view, while the monuments already declared and evaluated through a formal/legal institutional protection, along with the guidelines (drawn in, the above studies either for the HIA). But, of course category space-time will not be forgotten as it is crucial in every art, including art history, particularly the categories of cultural landscapes, all in the name of achieving integral protection of heritage.**

### **The City intra muros**

Dubrovnik realized its development from the late antiquity "retreating" to the true city with enormous efforts, as interpreted by Milan Prelog, the great art historian and scholar who is the person responsible for its inclusion on the UNESCO World Heritage List. Perhaps this is why, as a spontaneous growth of the city very early met with "natural" limits, which could be overcome only through organized efforts, and so a devised planning appears here very early. Stricter regulation of the 13th century, that was included into the Statute, as well as a number of its amendments of the 14th c., demonstrate urban discipline, which was imposed by the correct building plots and orthogonal street system prescribed width and the lay-out of residential and public areas and facilities. A number of various archival documents confirm the long-term efforts of the city government to convert wooden building to stone, pave streets and squares, have their utilities reach a civilizational level manifesting the art of positioning

the representative public buildings, such as the Rector's Palace, the Cathedral, the church of the patron saint St. Blaise, the City Hall, the Customs House, public space of Luza - creating a dominant feature of their city so that all other individual works are subjected to it. In the early 14th century . The expansion of the city was completed by connecting edifices of the Dominican and Franciscan monastery complexes in the east and in the west, the urban backbone The Placa main street, oriented east- west, leading from the Pile Gate to the Luža square, the centre of public life; the completion of all planned street directions of the older southern and the northern more recent section perpendicular to the Placa.

Linking its two hemispheres , the city established the main urban framework. The planned construction of public, residential, religious and communal facilities is strengthened by the 14th century , and late 15th and 16th centuries. It was substantially completed, linking the eastern and western gates, with two public fountains: the Great and the Small Onofrio's fountains. In addition to these two large monastic complexes and the former nine nunneries, 20 churches and chapels on their sites, blocks of the city tissue determine the structure of urban architecture - ranging from the modest type townhouses of lower class commoners on the municipal land of Prijeko (which has broken ties with the agrarian way of life) by connecting particles into blocks, multiplication of plots and the formation of representative examples of residential architecture , palaces- with special concentration on Pustijerna site.

Zoning determines the growth of construction in height, at the same time symbolizing the social and class division. Structure and function of housing construction is reflected in the business and commercial space at ground floor level, the traditional way of distribution of residential space on the upper floors, while the representativeness of this architecture is mostly reflected in a measured and harmonious stone and the plastic architectural vocabulary and the scale of the city palaces, stylistic features, ranging from the Romanesque / Gothic to Baroque , in the continuity of residential uses to this day.

Dubrovnik planned in such a way is a unique example of European medieval town construction on the area of 18.8 ha site comprises approximately 400x 400 meters, and within its walls with 824 buildings serving different purposes, with public spaces - has been retained to this day as a solid city urban matrix - with relatively few changes, even after the Great Earthquake of 1667.

A tendency to maintain the existing structures wherever possible is shown from the preserved documents, with the desire to re-establish the "model" that was being organized from the 13 th to the end of the 15th century.

In some areas, devastations were so large that the previous state could not be restored. During the restoration of the City a new square was created, the present day Gundulićeva poljana /Gundulić square. A part of Pustijerna was cluttered and upon demolition on the northern edge of the large area in the dense urban fabric of the city was liberated where the Jesuit complex with a Baroque staircase emerged as an intervention procedure which carried all the features of Baroque urbanism .



The crisis of political-territorial organization is recorded during the 18th century, while at the beginning of the 19th century, during the Napoleonic Wars, Dubrovnik lost its independence and was soon transformed into one of the provincial towns of the Austrian state. Drastically slowed pace of life in the city made the intensive building interventions impossible, so that in the historical centre there was no significant distortion of the old tissues ( if we exclude, for example, the Neo-Renaissance City Hall in the Placa in the urban fabric and the second half of the Orthodox Church from the 19th century, that did not integrate into the urban fabric.

During the 19th and 20th centuries the city gradually spread outside its walls. Urban development articulated regions in the immediate vicinity of the city, with an important function in the development of its establishment, the contact zones of the city: Pile, Boninovo, the area of Kono and Ploče , constitute the immediate city suburb of Dubrovnik in the catchment zone, in its functional and historical sense , but also in terms of its spacious design sense of the word. The process of building of the area of Pile, Boninovo and Kono as historically based urban gravitating environment (suburban?) was carried out in contact with the city and its fortifications and utility system, in contrapuntal relation dense and compact, this walled city of stone in line with its planned but easier constructed, green environment.

Dubrovnik got out of its walls deliberately applying different matrix of construction, and in this process of designing lies inception of the concept which will mark its framework - a system of its own free articulation, especially in the sphere of town construction, but on that trail and residential architecture, it emerged, opposed to the whole dense, tightly organized and unified measure of tissue. Despite the numerous, often inappropriate interventions to date has retained the character and personality of those regions, with an emphasis on preservation of the original matrix of construction, based on the historical street grid, fenced and green uokoljenih? housing unit, posing a spacious design value of the former suburbs conducted on the principle of garden urbanism .

And it is the historical matrix of these insulae with its equally historic gardens in harmony with strictly planned and compact cities - it is quite specific and complementary blend of two historically disparate types of urbanism, representing a unique example in Croatia , in terms of historical design value. Therefore, those still “ readable “ matrices (with the “ corroded “ garden areas) should be seen in the layered density of their spreading , and as urgently as possible applied in the system of protection measures and planning documentation protection regime of cultural landscapes, daring to ignore the newly inappropriate interventions , focusing on readable value as urban matrix should not disappear in the foreseeable future .

The small island of Lokrum, located 680 m southeast of the city of Dubrovnik is a specific example of natural, cultural and historical values of the Dubrovnik area. Inhabited since prehistoric times, it was mentioned for the first time in archival documents in 1023. Benedictine monastery complex, a historical and architectural layers ranging from Romanesque to historicism.

Heritage values are reflected in the fortification and quarantine building , with special emphasis on horticultural construction component of historic gardens. Lokrum is protected as a nature reserve with its Botanical Garden, being an

important stakeholder of fortification landscape with Fort Royal, the site of the former quarantine, a strongly expressed segment of the Habsburg 19th c., a nursery of intangible culture, oral traditions and legends –a layered cultural and natural habitat in which its cultural landscape is reflected.

The historical core of Dubrovnik, one of the best preserved in Europe, a unique urban and cultural-historical monument, has been included on the UNESCO World Heritage List since 1979 ( the list was complemented in 1994 by a decision on the extension of the protection zone onto immediate surroundings of the historic Old City, noting that Dubrovnik was inscribed on the list of endangered world Heritage during the war in Croatia.

The Dubrovnik area is located in an extremely sensitive area seismically, with earthquakes leaving serious consequences throughout its history. Therefore, the city has been continuously restored, up to the present, repairing the consequences of the earthquake of 1979, especially the consequences caused by the aggression on Croatia and Dubrovnik during the Croatian Patriotic War in 1991 / 1995, as well as and the earthquake of 1996 .

The historical entirety of the city and its immediate surroundings, retained the urban design, civilizational , cultural and symbolic significance of a monument, particularly in terms of the continuity of the concept of living , residential city, which makes the city of Dubrovnik a highly evaluated and distinctive cultural asset not only on the national level, but also within international framework.

**Dubrovnik city walls** : it is difficult to verbalize their magnificence , grandeur, symbiosis with the city , being its diaphragm , mold, its arms and hug. On top of these the massive plateau of Mount Srđ , a solid and protective part of a beautiful image of the City in the palm of its natural green frame and powerful identity protection , an outlet, an inherent spatial framework that has grown with it as the City with its ancient walls .

If we agree with Lewis Mumford, the author of the famous book in the history the City (The City in History) that the city is symbolically expressing a whole world, then Dubrovnik is a pattern for such a claim. The mold for the archetypal image of the city in general. The walls and the City are inseparable. The city is walls and walls are the city. The formation of a common history. Besides Dubrovnik walls were the culmination of thoughtful minds, a symbol of freedom and a specific mark of Dubrovnik. The city had a trust in them, in their actual, but also symbolic power.

But this archetypal value of the city as an enclosed space, a space of safety, of order, interpersonal solidarity and organization has another dimension. Polis, urbs , as opposed to an open, free, and therefore less secure , but in Dubrovnik parameters always well planned and designed space within the parameters of Dubrovnik. Functionality of the appearance of the city in the history of human development, in the history of civilization versus culture, less artificial and less elaborate forms , acquires a metaphysical value. The city, in our case „City“ with capital C is always encompassed by walls. Although the Middle Ages are long

gone, later periods have always stayed within the last membrane of the ancient walls of Dubrovnik – and the Baroque City (after the Great earthquake) is embedded within the medieval mold of the walls.

Harmonious urbanism of historic City and its surrounding contrapuntal value “garden urbanism,” was not evidently a sufficient incentive for a new inspiration to the town builders, and it seems that old and planned – is mocking a new mess in space!

Namely, it is about more and more frequent uncontrolled intrusion into the defined cultural landscape benchmark, and everything is presented as salvation of gains.

A fact about life in the walls is also the act of living in order, in a comfortable urban standard, in safety, and this shell, that embrace, is being more and more emptied. Residents of the City outside the walls are more likely to be the inhabitants of an indefinite and dubious urban area, while the shell of order and art urbanism remains empty. On the part of the depopulation. The importance of the walls, except for tourism purposes, should really be the educational factor for the inhabitants of the city, especially those who do not reside within the walls .

Walk on this edge of civilization provides an ideal view of the city as it should have been, therefore it is not only a source of pleasure and aesthetic enjoyment, but also an awareness of harmony, of permeating of material and spiritual. If local population was frequently exposed to that view, they would certainly have something to learn from a bird's eye view, looking at the order, at polis, at the City, the synthesis of life in it, and within the city walls and such frequent views from the above, would certainly affect the daily lives of those who live within the walled city, as well as upon those who would create its shape outside the walls. While working , creating , building a city from an earthly perspective, we should not forget the view from above, precisely because of the reason not to let an increasing disparity intra and extra muros to emerge, to achieve a balance between what was once a relationship between the culture of lifestyle in the countryside and the high civilization of the city. Nowadays, it should be reflected in the balance of the new city and the parts of what we have as legacy within the walls.

The walls through their continuous presence have been stretching and thus enclosing everything that has become and remained the symbol of order and civilization, culture elevated to a higher level of development. They were not damaged by the 1667 earthquake, at the time of the Austrian rule, Dubrovnik was considered an armed fortress until 1886 , and thereafter much degradation and devastation followed, which after World War II, the establishment of the Society of Friends of Dubrovnik Antiquities in 1952 , and the institutional protection service in 1960 those traces of Austrian deface were removed. A newly opened entrance to the City so-called Buža has remained, broken through in 1908 on the northern stretch of the city walls, so some parts of the northern ramparts were pulled down.

The city walls are the property of the City of Dubrovnik, being an example of maintenance, by The Society of Friends of Dubrovnik Antiquities, a civil society, a non-governmental and non-profit organization, has been professionally and successfully taking care of them for 62 years with a strong sense for heritage.

Regardless of its ownership, the City of Dubrovnik with its walls enjoys protection under the provisions of the Law on the Protection and Preservation of Cultural Assets of the Republic of Croatia, and the owners and holders of rights to cultural property or monument, and other holders of cultural goods are responsible for their protection and preservation. It is therefore important to establish the conditions for cultural assets according to their purpose and meaning, and serve the needs of both individual and public interest. To achieve this, it is essential to determine the manner as to how to manage the cultural assets. Given that the PUP "old city core" is out of force and discontinued, it is necessary to adopt urgently a Management Plan for the Historic Centre of Dubrovnik, so that those who bear the responsibility for the protection and management (Ministry of Culture, local government of the City of Dubrovnik, the Expert and Advisory Committee with The Institute for the Restoration of Dubrovnik, Department of Conservation in Dubrovnik, the Society of Friends of Dubrovnik Antiquities) could adequately fulfill their duty.

The main surviving elements of the city's urban infrastructure:

#### **Dubrovnik historical sewage**

Since Roman times sewage has been considered a pillar of urbanism. Dubrovnik has relatively early become a community with environmental awareness, following the provisions of the Articles of its Statutes enacted in 1272. In the Amendments of the Statute of 1296, guidelines for the construction of certain parts of the city, projecting to leave the spacing of three width of three palms, or 76.8 inches to run between neighboring houses in the direction north-south, which were called "gotales" or "gatti". Channels formed between the rows of houses and a series of parallel streets (width of the two plots with sewage in between) in the northern part of the city, cut off by the vertical Prijeko Street, flowed into closed septic tanks (cloaca). These spaces between the houses, uniform channels, some opened, others covered, were called in the past and still today: "klončine." All discharges of waste water (toilets, kitchens), were on the top floor of the house, wherefrom the water used to fall down into the canal. Opening windows on the other floors was prohibited in the midspacing above the channel.

The beginning of the construction of drainage system in Dubrovnik, with outlet of waste water into the sea, is not precisely established. Based on the documents preserved, it can be concluded that as early as 1399, there was a channel from the Gate of Pustijerna Street to the shore. In 1436 The Great Council accepted the contract for the construction of the aqueduct. It was built by March 1437. Gravity fed aqueduct water was conveyed to the public fountains. The Great Council also adopted comprehensive regulations on the construction of sewers and the city cleanliness in 1436. The main collector of sewers in

Dubrovnik which was built from 1436, including minor repairs, is still in use! It is traced beneath the Placa Street (the main street) and from the Celestina Medovića Street, where it is connected to the Prijeko Street collector, draining water towards the Pile Gate and flowing into the sea near the fortress Bokar. Another section? the Placa Street canal runs from the Od Sigurate Street collecting channels from the perpendicular streets and drains waste water to the east and discharges into the sea at the Od Ribarnice pier. Storm waters, the collection of which began in the 14th century, flowed down the streets poured into the street channels, built for discharging stormwater and wastewater. chutes towards the sea. Rain water washed away the waste material that was deposited in the canals during the dry period.

Dubrovnik's historic sewer, built during the 14th and 15th centuries with its technical solutions, performance and designed profiles is classified as one of the most important monuments not only of Dubrovnik, but a human and civilization feat which has been continuously in function over the centuries, although poorly maintained. Therefore, the historical sewage is partially in operation, and in the seventies of the 20th century only the existing one was reconstructed, noting that the character of the system as a monument was a limiting factor, as it was indeed a very complex conservation and construction work. That reconstruction comprised the pumping stations, while archaeological excavations showed how historic and visionary old profiles that were in poor condition urgently need repair, because the sewage system was not maintained adequately in terms of quality! Collectors, water transfer pumping, pressure piping, everything that follows modernization of this system, devices which interfere with the tides, with the lack of maintenance of the channel and the amount of storm water, all of it, therefore, causes the present real city collapses! The idea that the old canals should be supplied with fiberglass pipes under the main street called colloquially The Stradun, at the same time filling the old profiles with sand is alarming! Integral protection proclaims a thoroughly different approach to this heritage. Although the task of reconstruction of historic sewer is a very complex procedure, it is also a necessity, because it supports not only the economic success of Dubrovnik, but the only sewage system functioning in the city. This project is worth listing on a European and global tenders, undoubtedly well prepared.

### **Urban amenities - paving the city - civilizational measure of comfort in the city**

Construction of Dubrovnik in the 13th and 14th centuries in the light of the text of the Statute from 1272, appears as a special, but very consistent and still preserved concept of the city as a carefully planned and organized whole. Famous V. Statute Book (Liber statutorum Civitatis Ragusii) which tailors the city in urban "patterns" of Dubrovnik spaces with a courageous vision and decisive rationality, almost like a code of the contemporary urban planning, architectural design and environmental protection in the fullest sense. Seeking comparative examples on this subject in the Adriatic Statutes such as ( 1240 Split, Korčula in 1214, Venice in 1213 ), it can be concluded that the provisions of the Fifth Book of Dubrovnik Statute from 1272 surpassed the urban-planning texts in

the mentioned statutes of medieval municipal communities.

The subjecting of the individual to the regime of a whole in Dubrovnik began very early. The medieval settlement is transformed from a series of buildings into a totality of an urban body. This phenomenon of a whole is manifested primarily in the establishment and regulation of streets which are the common good of all citizens. The municipality has indeed endeavoured to give its streets and squares a great significance, the importance of a public space - prescribing their gradient, the method of rainwater drainage, covering the channels and wells, prohibiting outdoor stairways, not failing to establish the sewer interspatial area between the rows of houses named - klončine (stricturas), taking care that the rainwater pours down from the roofs by means of system of water flow through "gargails" ( which were often ornamented in the form of a griffin). The commune, and then the Republic, used to punish offenders severely for their neglect. Perhaps this is the reason why we have inherited the city in the walls in its entirety to this day.

In a set of interventions that could be integrated under the " the communal politics " Dubrovnik city community , provisions of the city's cleanliness and sanitary conditions should be brought up, which will be reified on the extensive works on the sewage system in the 14th and the aqueduct in the 15th century . These important communal facilities which exist to this day, are partly in function. They were built in stone and are monuments of the high level of technical culture and Dubrovnik urbanity, par excellence.

The Dubrovnik government put enormous efforts into the transformation of the city from the one in wood into the one in stone. Dubrovnik government tried mightily, having in mind particularly its streets and their paving. The orthogonal system of streets that run across the whole city connecting all its parts, being in common use, is the main way of differentiating public spaces from the private ones. The authorities' tendency to pave city public spaces, firstly in bricks, and later on in stone, was the tendency of upgrading the urban comfort , yet this public city " comfort " was also a measure of the state of things. The beginning of tessellation of Dubrovnik dates before 1328 , since the archival sources mentioned works carried out on the pavement at LUČARICA Street . In 1407 the Great Council brought decisions on the paving of all the streets of the city, and in 1468 that the Placa Street is to be paved with square stone . By comparison, paving in Paris was introduced in 1185, in Luebeck in 1310 , while in 1339 the entire Florence was paved.

Even today the geometry of paving of the city is impressive although this urban amenity is prone to wear and tear, and every couple of years has to be replaced. Archaeology can show us manners of paving in the Republic, especially nice stone slabs in streets and squares , bricks stacked in the " fishbone " pattern and bricks enclosed within a belt of stone slabs. Later, in less prosperous times, especially after the earthquake of 1667, we can see very nicely designed paving covered with pebbles, resistant to abrasion.

Last of all , the main street paving during the Serbian chetnicks aggression was

significantly and severely damaged, but soon after the war Dubrovnik was supplied in this kind of stone called -dolit- and the restoration of the main street was successfully carried out.

If we add to the the above construction amenities of the public space, e.g., erecting Roland's column and the flagpole for the state standard with the incized measure for length of the "Dubrovnik's ell" (51.2 cm), and the construction of the city bridges, fountains in public spaces, and the the city bridges, building and sculpting of the fountains in public spaces, making the benches and fences, then the numbering of houses and salt repositories with capital Gothic letters and numbers, and the doorposts of house entrances with carved Arabic house numbers, the figural sculptures on the facades, especially on public buildings, the inscriptions in stone carved in Latin capital letters, the heraldic insignia on residential buildings, the registry of the city amenities is complemented, the physiognomy of its public appearance. Striving persistently to mark its dimensions in stone, from street paving to floors, to erection of high defense towers, Dubrovnik was not only concerned for the safety and comfort of its citizens, but also for durability and aesthetics. For its urban standard and reputation.

#### **Culture of stone - the public face of the City**

It is in stone that we recognize our architectural heritage, both culture of stone and the Mediterranean, we recognize our own identity and its substance. Dubrovnik had its most important buildings built from mining limestone of an excellent quality from the island of Korčula, exclusively from the small island of Vrnik. There were once 29 quarries only on the small island of Vrnik in the archipelago of Korčula. Dubrovnik had its own quarry from which the stone was extracted for the construction, what has certainly influenced the development of stone carving and building, to a large concentration of stonemasons and stone carvers craftsmanship in the 14th, 15th and 16th centuries. Kamenari, masons, builders, these ancient masters of domestic blood, had their own confraternities- brotherhoods, regulations, apprentices, tools, their craft. The famous quarries were on the island of Supetar near Cavtat, in Gruž, Rijeka dubrovačka, on the island of Lopud, Mljet, in Konavle, and in Župa rare porous stone - travertine - was obtained, suitable for the construction of the vaults. Local stone served for various constructions and planned construction in small towns of the Republic, smaller governmental "centres" like Ston, Mali Ston, Cavtat and Lopud. These small places with a stamp of authenticity, planned and articulated construction, followed their centre - The City of Dubrovnik, it is exactly the famous Dubrovnik urbanization of its entire area "on a small scale", inheriting from it the culture of the urban. Ston, as the second largest city of the Republic, a planned city in which the public fountain was built in the 16th century on the southern side of the Placa public area, bringing water from the nearby source called Oko. It was then that all the public area of Placa in Ston was paved in stone. In that space the Count's court, the Republic Chancellor's building was erected, a flagpole was placed and a clock tower decorated. For large, representative buildings in Dubrovnik the quality stone from the Island of Korčula was imported, so the people of Dubrovnik along with master

builders especially with the Andrijić family from Korčula erected their majestic white city in stone during the 15th and 16th centuries .

### **Municipal Repositories of Salt - slanice**

Municipal repositories were located in various parts of the city , and most of them were close to the city port. For example, all the groundfloor parts of houses in the Žudioska Street were used for storage. Stone frames of their entrances were made during the 15th and the 16th century. Jewish merchants lived in the upper floors of these houses. It was in this street where Jewish Getto was located and together with municipal repositories it was closed at night with a lockable gate at the entrance from the Placa Street or the Stradun main street with an exit in alignment with the Prijeko Street. In the Republic of Dubrovnik, where the official religion was Catholic, other religions were allowed too, the Jewish community had a special status as it successfully dealt with financial transactions and trade; doctors came from their ranks and so this community was quite useful to the people of Dubrovnik. Despite the fact that they were kept “locked in”. The Republic behaved quite liberally toward Jews in the contemporary conditions, allowing them to perform their rituals in the synagogue in the Žudioska Street (it is still there and is one of the oldest in Europe) , the only temple of other denomination on the territory of the Republic! Since 1461, the Republic closed the street above the church of St. Nicholas at the Prijeko Street , with a series of adjacent salt repositories. In 1460, during works carried out on the reinforcement of the northern walls, a still existing salt repository, was built to the west from the Romanesque church of St. James on the Peline Street.

The salt repository attached to the southern part of the Revelin fortress at Ploče was built in the 16th century.

### **Rupe Granary**

A particular concern of the city for keeping stocks of grain is evident judging by the construction of two repositories : the older a storage. At Andrija site, from the beginning of the 15th c., in the southwestern part of the city with a series of nunneries, Benedictine monasteries, and the Rupe granary in the high southern gorge-like part of the city from the mid 16th century . (construction completed in 1590). The Rupe granary is a unique building, a type of construction which blended into a space of housing series. In the rocky base of the building, in the living stone 15 wells for grains were burrowed , while the premises on the 1st and the 2nd floor were arranged as a horizontal storage surfaces from which through the openings in the floor and vaults well as through the channels the grains kept flowing into the wells. The structural system is reminiscent of the old FONTIKS , which were added to between the Rector’s tower and the shipyard in the port in the 14th century. The construction design of Rupe is a clear, clean, utilitarian , brilliant space with a good reason called the “cathedral of grain ”with the impressive travertine ceilings . By adding yet another floor during the Austrian times, it was restored after the earthquake of 1979. It is a unique communal building on a European scale. Rupe granary is being used by the Dubrovnik Museums; it should be noticed that the original function is to be clearly museologically presented.



At Andrija site has been fully researched and preserved, the project documentation is to be soon completed, and the Society of Friends of Dubrovnik Antiquities funded excavations and project plans at this site with the intention to establish an "in situ" archaeological museum.

### **Lazarettos at Ploče**

In Dubrovnik, a maritime city of an exceptional transit trade, infectious diseases frequently spread, especially epidemics of plague. Therefore the city is in further fostering its hygienic, sanitary and epidemiological Health Initiative organized kontumace, leprosorium, lazarettos in more remote and closer locations. During the 15th century, a lazaretto was erected on Danče, a peninsula to the west from the city, and on the islands of Mrkan and Bobara, and during the 15th century a large quarantine was built on the Island of Lokrum, which has never been completed, nor has it been put to use due to security and defense reasons. With the end of the 16th, the spacious lazarettos were built at Ploče, only completed in the middle of the 17th century. These lazarettos had a favourable location, as the quarantine was near the Dubrovnik drum trail, Tabor and fountain called Meded, on a route which served to a number of caravans arriving from the Turkish part of the Balkans. The building is on an impressive location next to the city harbour, with a series of parallel longitudinal spaces, with special sections for merchandise and passengers. Lazarettos have recently been renovated and will serve for cultural purposes, and as a seat of non-governmental civil associations.

### **The Dubrovnik Aqueduct and its Role in the Urbanization of the City**

Water supply of the inhabitants (cisterns reservoirs, wells) has become scarce so the ship used to bring water from Mlini in Župa dubrovačka. That is why Dubrovnik invited the best architects and plumbers of the time: Onofrio Giordano from a place called Cava near Naples and Andreuzzi de Bulbito from Tramonti, from Apulia, southern Italy, nurturing the growing commercial ties with those parts and at the same time having a vision of the development of the textile industry for which the water was certainly needed, to have the aqueduct built. And while cities of Venetian Dalmatia were building large municipal cisterns to collect rain water, the free City of Dubrovnik introduced spring water. It was an exceptionally substantial engineering and technical feat

That was carried out fast and successfully. One of the largest government investments of the Dubrovnik Republic! Since July 1436, when the contract was signed with him, until October 1437, work had to be completed. And it was. A torrent of "the sweetest liquid" was brought to the City as eyewitness de Diversis wrote, who admired the aqueduct as well as the Onofrio's Fountain then perfectly decorated. Onofrio della Cava was the best paid master builder in the service of the Republic -- 300 ducats per, no wonder: the stingy Dubrovnik government paid generously, because the master brought water to the city, repaired its seat- in fact, made a reconstruction of the Rector's Palace after the fire in 1435, worked on fortifications. His works and advisory assistance were known in Cavtat, Ston, Grobnik ..... he was a person who was worth to be well paid; for the pragmatic Dubrovnik it was a well invested money.

Thus, the early Renaissance aqueduct was gravity - fed and its main canal in the length of 11.70 km, and the capacity of 70l / s supplied Dubrovnik, and the available drop was about 0,17% . The pipelines had the initial point from the main source of water in Šumet- called "Vrelo", at an elevation of 109 meters above the sea level along with some other smaller sources were mentioned. Water was conveyed from a source at a distance of some dozen km and open in the Great Onofrio's Fountain by the inner Pile Gate; and a Small Onofrio's fountain adjacent to the shipyard , including the fountain at the Ribarnica site at the port. Water reservoirs were later located at Brsalje, then in the former repositories of salt "slanice" - near St. Nicholas and St. Stephen. The construction of water supply system was completed at the same time, by the old sewage network of the city . Moreover, it is an interesting fact that, a series of mills north of Minčeta were connected by the same water supply line . Beside the city moat a Street of Mills was built immediately after the construction of the aqueduct, with 14 mills for grain grinding and 14 fulling mills for flax and wool processing. These were operating until the great earthquake of 1667, never to be renovated after that. It was in our time that the Street of Mills has been partially reconstructed and preserved, with very readable remains, and all thanks go to the Society of Friends of Dubrovnik Antiquities . The Street of Mills is being challenged by its rival Uz Posat Street to " compete with" today as a vertical line ascending towards Medium Kono Street, outlining its different layers and density of cultivation of space, harmoniously coexisting in it and in time ( would it be advisable in that area, in an unfair competition with the existing situation to see an elevator, a technically cold device that would bring people to the highly conflicting mass of the City garage landscape on Ilijina Glavica ? ).

The aqueduct in the history did not serve as the water supply system for the city, but has for centuries served as a land communication of the City with Rijeka dubrovačka, all the way to Šumet.

The role of the aqueduct in the urbanization of the city, in other words, those parts on the route is exceptional, and is preserved in terms of space and structure and toponymically. Namely, the word "kono" in Dubrovnik is the name for the channel , and the tracing of three channels alongside the foot of of Mount Srđ slope, extending above Gruž was the final framework for a system of roads and streets in the area of Pile and Kono. The urbanization of that neighborhood, with three longitudinal, landscaped paths beneath water channels : the Upper or The Third Kono, The Medium or the Second Kono, or the Lower Kono Street, Lower Kono gave their names and arranged the suburbs, of the present day.

The exceptional value of the aqueduct of such a successful project of the Republic, the city government expressed its readiness to be engaged in risks of deliberate transformation of the entire suburb, shows to what extent the authorities of Dubrovnik were responsible, organized and perseverant in city construction, as well as homes for its citizens.

And this opens up the topic of suburban settlements , the urbanization of these settlements and tracing of routes - communication.

### **Suburban settlements – suburbs - urbanization**

During the history the agricultural areas around the city were laid out and became the basis of urbanization of its suburbs, which were gradually amalgamated with the city.

The wider suburban area of Dubrovnik consisted of landscapes plates with St. James in the east and the Pile with Boninovo and the Kono Streets in the west, as direct contact zones of the city. Situated on the steep slopes of Mount Srđ, they ended on a low rocky shore. At first, they were for security reasons virtually “erased” spaces dotted with running paths, trails, terraced gardens, churches and an occasional monastery.

### **Trails - Communication in Service of Urbanization**

Building up gradually its territory, Dubrovnik strived to organize even the roads and paths between the vineyards and fields in the same regular mode like the streets within their walls. This thought by Milan Prelog largely confirms not only the synergy of natural givens and human adaptation to it, but the modules of the landscaping standards. In this way only, the notion of cultivated landscape of Dubrovnik, as the artistry of governing the area Dubrovnik has truly possessed.

For an easier access to use your suburban estates, it was necessary to lay down the paths and trails in the landscape, it was appropriate to deal with the land, introduce order in the surrounding agricultural areas. So they started to become a regular walk-in, and particles of cultivated land were easily accessed; the process of urbanization was under way.

The oldest municipal road outside the town was longitudinally laid in east-west direction and was oriented towards Gruž. It is assumed that it was in existence there already in the 9th or the 10th century; starting at Pile, climbing to the church of St. Andrew, continuing towards Tri crkve/At Three Churches Site and the eponymous area, aiming at the Gruž gardens and vineyards. There is a part of that road that still exists in the area of Boninovo and it was named Put Od Republike /Path Of Republic ( unfortunately it was significantly reduced in size!)

Its initial part (from Pile) bore a significant name Između vrta Street/ Among the Gardens ( genitive plural !), which indicates that it ran through the gardens at Pile, in the immediate vicinity of the city. And even nowadays it is a paved city street of the same name and is still surrounded by gardens. It is interesting, that the course is continued from the city - from the church of St. Nicholas at the Prijeko Street, a small Od Sigurate church, and then Pile, to the Između vrta Street, as well as its backbone. Along this street there were rhythmically positioned small medieval churches of St. Felix, St.Vittus, St. Andrew and further on westward. The Three churches at Boninovo . correctly assumed by Bruno Šišić a true authority among landscape architects that the previously described was the oldest track of this road towards Gruž, was a decumanus, and there was a suburban cardo, and it is certainly Zrinsko Frankopanska Street, the steepest and the longest street in Dubrovnik, and that these two directions crossed each other at meadow Jamine, near the entrance to the City .

These two roads, and a well planned complex network of side, suburban communications, of particular importance for the city. There are two more roads that stand out: one Uz Busovinu Street (busovina - green boxwood), the wider area around the Ilijina glavica, situated somewhat obliquely between the spaces of *cardo* and *decumanus* (still exists today and is the most romantic street in Dubrovnik), and a significant path vertically up the slope of Mount Srđ. At one time, it reached out all the way to Boninovo connecting onto the road to Gruž, and it is Privežna Street, which doesn't reach Boninovo any longer, but it still exists in its major part. This was the most summarized overview of path directions, and the uniqueness of the system is also reflected by the roads and streets being enclosed. Thus, the construction matrix outside the City was based on the course of the historical roads and the three marked routes of the aqueduct, which, due to the configuration of the terrain, stretched along the three levels of canals. Transversal pedestrian communication made it possible to parcel out plots in a quite regular manner. In that way, the so called *insulae* of suburban building were formed, which, in the light of intensive development of agriculture, proved favourable for a growing activity in building villas placed in cultivated vegetation. However, with the development of the City and reduced danger from enemy attacks, these suburban areas witnessed the beginning of building activity in the 15th century, and gaining their functions. With the existing system of communication, a residential town space was gradually formed. Villa architecture type of building will have a significant influence on the typical characteristics of house building for permanent residence. As a result, a type of a suburban house surrounded by a garden emerged. The ground plan retained the spatial organization of a country house with the obligatory garden plot, but also walkways, trellises, stone benches, flower beds – the whole repertory of a country house. In that way, a synthesis was achieved between the villa and the town residential architecture. This type of residential building during the 18th century can be seen throughout the city contact area: on Pile, Boninovo, on the three Konos. This type of Dubrovnik houses is widely spread.

**Capital edifices of villa construction** can be found, like the representative complex Crijević-Pucić in the upper part of Pile, near the park Gradac; the villa Vice Stjepović Skočibuha with a spacious garden, situated in the area "Između tri crkve" (Among the three churches), also the suburban villa Matej Lucijanov's, the Pucić-Đorđić's, and many others.

On the far south-eastern part of Pile, at Brsalje, a shooting range stood which was not used only for drill and shooting practice, but also for the testing of newly cast guns. With the fresh water supply reaching Dubrovnik via Konalj in the 15th century, the central part of Pile was turned into an industrial zone, namely the area U Pilama, as well as along the western part of the city moat. Grain mills, stamping mills for linen and wool, manufacture of cloth with dye-works, tannery, leather works, gun and bell foundry, glass and soap works. Simple stone houses stood near-by, mostly in Pile, for accommodation of craftsmen and workers. At the same time, the nobles and wealthier citizens built their numerous villas with gardens planned according to Dubrovnik tradition

(na dubrovačku). In that manner, the entire country area of Pile and Kono was in a way transformed into “a garden city”, the concept that is in contemporary architectural jargon called “garden urbanism”.

**In fact, the still preserved spatial organization of those areas, the character and individual quality of the original building matrix-represents the constant and recognisable value of form, based upon and marked by loose garden urbanism.**

The main caravan route, the so-called **Dubrovački drum**, led across **Ploče and Sveti Jakov /St. James**. It was, at the same time the major trade and diplomatic traffic way leading to the east, via Niš to Constantinople, also to the hinterland towards mid-Bosnia. This was the way into the City for numerous caravans with different goods and cattle. That was the reason for the building of Tabor nearby, a reception centre with hygiene – epidemiological facilities. Later on in the 17th century, Lazarettos were built – a quarantine and a warehouse for goods. With the onset of the 15th century, the Dubrovnik nobles, for example families Gučetić and Saraca, (remains of the archbishop - Biskupija of Dubrovnik – Bishop’s palace in St. Jakov) started building their country houses in a wider area of Ploče towards St. Jakov, but not in such a number as in Pile and Konos. The 17th century saw the building of residential houses for wealthier commoners. Those houses were of the type of suburban houses of the 17th and 18th centuries, with large gardens and house lots, in line with the traditional matrix. All that building took place by the main road, but in a quite spread-out and loose plan. The contemporary terms, Ploče would be described as, apart from being a country zone, they formed a traffic, trade-warehouse and city sanitary zone.

The area of **Gruž and Lapad**, located to the west of the City and being a part of the town space out of the city walls, “extra muros”, were rural area in the past history, a long way from the City in those times. That was the region of smaller farming settlements, with a few churches and monasteries, situated somewhat above the coastline. The farmers tilled their land in the fertile fields of Gruž and Lapad, but also engaged in fishing.

With the establishment of stable and safe situation in the relations with the neighbours of the Republic during the 15th, 16th and 17th centuries, the Gruž Bay became a construction plot of many aristocratic villas by the sea, but also of agricultural plots with houses for the wealthy commoners. It is also a home of the Dominican monastery of the Holy Cross (Svetog Križa). The gentle and sandy northern bay of Gruž favoured development of shipbuilding – since the bay of Gruž had always been a very safe and good shelter for ships. The Gruž škari - shipyards were soon well - known, first for building of small ships and later of larger ones. Around these seven in total, were smaller trim settlements for the shipbuilders, consisting of simple stone houses with modest gardens. Together with villas and other homes, they created a cultivated environment of Gruž. Since the 16th century, the quarantine for passengers and goods stood at the far south-western part of the Bay of Gruž. It was in use for passengers and goods arriving by ships from the East.

The area of Lapad, unlike Gruž, was almost uninhabited. It was covered in its greater part in pine and cypress forest, with some fields and an ancient church

here and there, undoubtedly an ideal hunting ground. Several villas were built in Lapad (the oldest being the Benešić family villa from the 14th century) by and above the fertile fields, as well as on the edge of the Bay of Lapad, called Sumartin. A quarantine stood there at one time. A few houses were built for wealthier commoners, as well as settlements for farmers working on the land of their masters.

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The invasion of Napoleon's army and the collapse of the Dubrovnik Republic brought drastic changes in the region of Dubrovnik and its immediate surroundings. Suddenly, the City was turned into a large military camp as it housed 1500 soldiers at the start, with their number growing through the year. This transformation from the civil into the military use of the City completely governed the entire lifestyle. Various prohibitions and limitations were enforced, like a curfew, strictly limited use of water, felling and sale of wood, grain, bread, salt and other vital foodstuffs and produce. First of all, upon its invasion of Dubrovnik territory at the beginning of 1806 the French army had plundered houses and devastated historical buildings by changing their original function and adapting them for new uses. Thus, they eradicated the original design of space of valuable monasteries and churches, by turning them into military barracks, hospitals, prisons and warehouses. The same befell the palaces of nobility and homes of wealthy commoners, which were taken over by French soldiers of higher rank, who adapted them according to their own taste and whim. Public buildings, like the Rector's Palace, City Hall, Sponza (Customs House), the Arsenal and the city towers were adapted for new facilities. Afterwards, Russian-Montenegrin army, during the French-Russian conflict in June 1806 besieged and bombed Dubrovnik, setting fire to all villas and houses in the immediate surroundings. Many of those had never been reconstructed. The French authorities built a number of strong fortifications around Dubrovnik and in its wider surroundings; thirty-three altogether. The building of fortifications was followed by the intensive construction of modern roads across the entire region. These are still popularly called Napoleonov put (Napoleon's Road), their purpose was access to the strategic and military points and control over the newly captured territory of Dubrovnik. Put iza Grada (Road Behind the City) was built below the northern part of the city walls in the space of the city moat. The excavated material was deposited at the historical site of Brsalje, up to the height of 4-6 metres, as well as the space in front of the western entrance to the City. A new communication route was established from Pile to Gruž and Lapad via Boninovo, ignoring in the process historical communication routes and courses passing through historical gardens of villas and disrupting the existing urban matrix of Pile, and of the other areas. That new road continued by the coast towards Primorje, all the way to Imotica, a village at the western border of the Dubrovnik Republic. All those works were financed with the money found in the Republic's safe. When those were exhausted, big loans were taken out; then all was appropriated, including even the sacral silver, remelted so that it could be turned into ducats for financing the construction.

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Following the establishment of the Austrian rule over the Dubrovnik region in 1814, the first decades of the 19th century were marked by strained circumstances, poverty and illnesses, coupled with natural disasters, namely very strong earthquakes in 1822 and 1823. It all added to the distress, chaos and devastation. The defence power that Dubrovnik achieved through its system of fortifications, that could be of considerable importance in case of uprising or capture was noted and so, Dubrovnik gained a status of a closed city, city-fortress that was not abolished until 1886. That limited the life inside the city to a large extent, and its progress. That period was marked by impoverishment of the former patricians and their gradual disappearance. A considerable part of landowner's estates were sold out to foreigners, but also to commoners who have become rich, or to former serfs. The second and third decade of the 19th century were spent in land measuring and the establishment of cadastre and land registry books of the former Dubrovnik state. At the same time, work on building of fortifications in the entire region of Dubrovnik was carried on. Those that the French authorities had not completed were finished, and new ones built. Then slowly, around the middle of the 19th century the economic stabilization set in, and a slow progress re-started, in line with the new regulations of life existing at the time, based upon trade and shipping. Buildings, both palaces, houses and villas, but also churches and monasteries, were reconstructed. A few houses were built, mostly at Ploče and Pile, as near to the city as possible. New construction interventions inside the historical core of Dubrovnik, mostly devastated the historical space and its architecture. The largest monastery complexes were seized by the army and the city administration. St. Claire's (Sv. Klara) nunnery (military headquarters), St. Mary's (Sv. Marija) (City authorities) and St. Catherine's (Sv. Katarina) (Grammar school), were adapted for new use. Since the old Gothic-Renaissance Town Hall was burnt down in 1817, it was left to decay, but then was pulled down in 1863, and three years later a new one was built. It represents a foreign body inside the City because of its size and Neo-Renaissance style. At the same time, the old baptismal font by the Cathedral was pulled down and a new square opened, the contemporary Buničeva poljana. A number of buildings with military and sanitary facilities were erected on the Weapon's Square (Trg oružja) by the Revelin fortress, completely transforming the aspect of that area. A hospital pavilion was built on the southern ramparts, on St. Margarita's bastion. Its space was linked to the Jesuit monastery- used as a hospital at the time. The old Fort of Pile was pulled down and the intention was to demolish a part of the city walls by the Pile Gate (Bastion od Pila) in order to modernize the entrance into the city and "to let as much air as possible into the City – which was prevented by the old walls". The real reason for demolition lay in the strength of the City fortification complex that should be weakened. The City port got a new look; the old Kula Ribarnice (Fishmarket Tower) was pulled down, together with the greater part of the small arsenal, while a new larger piers were built, with the stone waterfront along the greater part of the port. St. John's Fort (Sv. Ivan) was partitioned and the break-water Porporela was constructed along its eastern edge. Some palaces of the nobles were pulled down, like the one of Gradi-Gradić family and Gondola-Gundulić, in

order to erect new buildings in their place, such as the new bishop's seminary and the Orthodox Church.

Building activity in the second half of the 19th century took place mostly at Pile and in Gruž; less so at Ploče, while Lapad still remained isolated and excluded from the intensive construction. In the suburb of Ploče, mostly along the main road, new family houses were built, following the tradition in their form. Komarda – Slaughterhouse and a butcher's were constructed in the spot to the west of Lazarettos, having been moved from the city walls-the space of St Luke's turret.

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The aspect of Pile was changed considerably from the middle of the 19th century. The transformation saw the intensive house building of new family homes, in Pile as well as in the area of suburban villas Pozze-Pucić and Gracić and on towards Lower Kono (Donji Kono). An important undertaking was the new Municipal hospital (1888) in a forested area from the villa Cerva-Pozze/Crijević-Pucić. The horse-stables built at Brsalje at the beginning of the 19th century were adapted in 1836 and turned into the coffee-house Birimiša. It still is there, known as "Dubravka". At the end of the century, in 1897, a newly-built hotel "Imperial" was opened. It dominated the entire area of Pile with its design and size. In that way, with some small private hotels and guest houses already there, Pile had been organized as an area dedicated to tourism. The location for carriages at Brsalje, later for omnibuses, contributed to this function as a kind of a local station.

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Building of large wooden vessels went on in Gruž during the 19th century, but with the coming of the steam ships, that activity was gradually slowing down and thus the renowned Gruž shipyards were slowly disappearing. A spacious waterfront was constructed in their place. It was to serve larger ships, thus Gruž was slowly being transformed into the major trade and passenger port of Dubrovnik. Hotel "Petka", built in 1886, was the first hotel on the coast of Gruž. At the same time, Solska baza (Salt storehouse) was built for the purpose of storage of goods mainly coal needed for ships. However, this area was expanding eastwards, i.e. towards the location of Gruško polje (Gruž Field). In 1892 Duhan-ska stanica (Tobacco Station Complex) was built at the tip of the field, consisting of the administrative premises and the processing-storing premises. It was a nice, the first example of industrial architecture in Dubrovnik. The Austrian military authorities built, slightly more to the east, in 1897 Army barracks – a complex of Home-Guard barracks (Landwehr Infanterie Kaserne). With all that, Gruž was losing the traditional villa character and gaining a new – economic one, comprising seafaring, shipbuilding, craftsmanship and trade. All that constituted the economic base of Dubrovnik.



The beginning of the 20th century brought significant changes in the ways of living of the City that set on from the very dawn of the century. The reconstruction of waterworks in 1901 brought running water to every home in the city; but also in Gruž and Lapad. The same year, 1901, brought electricity. At the same time, a railway connection with the hinterland, (narrow gauge), was introduced. It was also a connection with Vienna and further to the East. A modern local transport was organized by the introduction of the tramcar in 1910. It was the first in Dalmatia, connecting Pile with Gruž and Lapad. These were preconditions for a more important economic progress that was still based on seafaring, craftsmanship and trade, but also on tourism and catering.

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The urbanization of the area of Ploče went on, somewhat intensified, by building of more representative family homes, still mostly located by the main road towards Sv.Jakov. ( St. James) The house Banac, built in 1912, stands among them by its size and facilities. It was built by the coastline, above the sandy beach of Banje. It consisted of some ten flats to let. The military beach Banje was built east of Lazaretto in 1910, to become a city public beach. The voluminous Grammar School building at the location Tabor, built in 1913, stood out as an intrusion in space with its size; not integrated. The first hotel to be built in Ploče in 1913 – Hotel Odak – was located on the coastline, below the main road. Later on, the present hotel “Excelsior” was built on that location.

The area of Pile also witnessed intensified construction of family homes and villas at the beginning of the 20th century. The entire area acquired its cultured appearance of today, with special care being given to the arrangement of the environment. Put iza Grada was reconstructed and tidied up (1899), the park Gradac (1898). The park in Posat (1904), Brsalje (1900-1907, park Bogišić (1909), and Posat (1913). At the same time, with the introduction of the tramcar in front of the suburban villa Pucić, the main tram station was built, with a tram junction and terminus.

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The development process of Gruž began in the second half of the 19th century, continued more intensively with the coming of the railway and the maritime traffic. The railway station with storeroom space was built at Kantafig, the far point of the City in the west. Houses for accommodation of the railway workers were also built. With the introduction of the tram car in Gruž, the main administration building was erected, with depot and a workshop – Remiza at the tip of Gruško polje. The electric power station was constructed at Batala, supplying consumers with that new energy of prosperity. The development of Gruž inspired a considerable building of new houses, mostly above the port, but also at the new location from Boninovo towards Gruž, which is now the street of Dr. Ante Starčević. A number of representative houses was built up to the year 1914, mostly plastered facades, but in the style of Art Nouveau, but also a lot of them in the traditional shape built in stone.

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Lapad also underwent slow changes. The coastline with a road from Batala to the present Orsan was built at the beginning of the century. At the same time, a part of the coastline was filled in. That caused "Small Venice" (Mala Venecija/ Piccola Venezia) small, indented bays with a little port by the villa Giorgi to disappear. Likewise, fish-ponds of the villa Pozze-Pucić and Sorgo-Sorkočević were left "on dry land". A new road was constructed towards Lapad via Gorica of St. Blaise (Sv. Vlaho), as well as the one around the peninsula, with the tramcar running to Uvala. In the area around St. Michael (Sv. Mihajlo) and above the Field of Our Lady (Gospino polje) a number of families from the Island of Hvar built their homes, regenerated olive groves and vineyards. The first tourist-catering building in Lapad - guest house "Dalmacija" was built in 1912. Beach shacks – small wooden shacks on wharfs leading to the sea were erected at several locations on the southern coast of the Gruž Bay. It is there that the "Grand Hotel Lapad" was built at the location of the former Mala Venecija / Small Venice, and opened in 1914.

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This overview of the Dubrovnik city regions had the new attributes from the period of the 19th and 20th centuries added, in order to contribute to the complex picture of the space, with its allotment in "particular conditions". Namely, it can be concluded that some interventions into the existing suburban body have become the irreplaceable element, imbedded into the picture of that space: can we imagine Boninovo without the picture of the Old Hospital (Stara bolnica) – the venue of The Dubrovnik University nowadays (the recent reconstruction brought it into its original appearance of its architect Kun Weidman). Or, ignore villas, house construction between the two World Wars? Actually, that type of construction was always on the trace of that of villa, i.e. on the traces of tradition with the signature of contemporaries. Such quality, randomly chosen, but in the category space and time, are sediments of values in the long progress of the development of the city and the changes of epochs – the frame of the integral, and not partial perception of the space.

Unfortunately, there are many more examples of ungainly, unprofessional and devastating interventions in the area, whether completed or just thought of! Part of the oversights can be repaired by rehabilitation of the historical and natural ambience, some of the interventions have already done glaring damage to the landscape (hotel Radisson in Orašac, hotel Libertas at the entrance into Gospino polje, reconstructed with additions on hotel Belvedere at Montovjerna, the newly-built hotel Villa Dubrovnik in St. Jakov. The building permit is ready for the new hotel Belvedere in St. Jakov (at the location of the same hotel devastated during the war), which will once again definitely disrupt the harmonious relation and the measure of urban composition of a thousand year-old City and the panorama of its natural environment.

It should be strongly stressed that tourism brings with it mental pollution, testi-

fied by the story of the space, closely tied up with tourism as a monoculture shown in the examples of hotel construction. Since tourism is forcing itself as monoculture, then it creates the adequate mentalities, sets of values and styles of conduct, not only inside the historical core of the City, but in the entire region, even in smaller suburban settlements, where everything is subordinated to functions of tourism. It is high time to realize that the consumption of the space is irreversible.

This consumption is particularly painful when the cultured landscape of Dubrovnik is in question.