

Towards sustainable waterfront transformation: through the Mediterranean to Montenegro

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Abstract

The milestone of the research study is focusing on the definition of a model for the sustainable transformation of the waterfront in Montenegro in order to integrate and contextualize the Montenegrin coast within the Mediterranean Basin and to refund and detect local identity. Marine, port and fluvial cities can be considered as laboratories for the process of urban renewal in terms of residential areas, transport, public spaces and the quality of the environment. The aim of the research will focus on their formation, transformation and opportunities to regenerate in a sustainable key, from scenarios of transformation and development strategies, to action and design guidelines as a possible model of urban development and environmental transformation. After studying the international scene in this topic, the research will focus on three case studies of actual urban waterfront development in Montenegro, which are currently in the process of transformation. The selection of case studies will be identified at international level, according to the main 'ingredients' for a sustainable cohabitation between ports and cities and for a lasting success in waterfront regeneration processes. Now spread out and developed at a global dimension, involving both big cities but also medium and small-scale cities at all latitudes and in all continents, waterfront regeneration is in many cases the starting point for the regeneration of the city itself and of its relocation in the international context.

Keywords: waterfront, urban regeneration, urban renewal, creative cities, identity, Mediterranean, Montenegro, Brownfield.



1 Introduction

In the modern city, the success of the quality of life embodied in public places is increasingly accepted as a guarantee factor for overall success. As such, modern cities have realized the importance of the role of water for a better quality of life. Many cities around the world create ambitious waterfront projects, trying to solve their problems related to water and combining them with improved public spaces. Innovative technologies give us the space as a legacy for significant urban renewal, so the harbour areas become a modern urban design laboratory.

The transformation of the urban waterfront is, without doubt, one of the great chapters of urban renewal in the last 15 years, and we can say with certainty that this will be an extremely important issue in the following decades.

This paper examines some selected examples of cities in Europe and the world (Barcelona, Marseilles, Rotterdam, Bordeaux, Hamburg) with its waterfront projects. It examines the state of the art of the development in the complex Mediterranean context and shows the beginnings of a successful implementation in Montenegro and those who just should establish its urban policy, including water and strategies for creating a space to interact with the water and contribute to changing the quality of urban life of citizens.

Also, the purpose of this paper is to investigate the main factors for the realization of creative waterfront regeneration, and how they stimulate sustainable innovation, in order to achieve economically, socially and environmentally sustainable solutions in the cities on the water, with the ultimate goal to draw some recommendations for development of selected case studies in Montenegro.

2 Modern city and the waterfront transformation

Technical, political, social and economic transformation in modern cities has caused significant changes in the spatial configuration of the city as a whole and especially on their waterfronts. Since the 1970s, the experience of urban rehabilitation, recycling of existing urban structures and their adaptiveness to new uses has provided new ways of doing things in the cities. The possibility of using former industrial areas and ports provides a qualitative and economic development for the city. New uses in these recycled areas are generally labelled as triggers of acceleration and development of the city and public spaces. In a similar manner the complex Porto Montenegro in Montenegro, the territory of the former Arsenal, for a few years made results on an international scale, which will later through this study be further elaborated.

The modern city is constantly transformed through various processes of reconstruction where urban waterfront regeneration receives its full significance, with the intention of becoming a space for interaction of two systems, land and water as a collective heritage, urban fabric and port, the space of constant evolution, specialized transition and dynamic change, thus generating one of the most modern urban phenomena.



3 State of the art in the process of waterfront development

This study was preceded by the analysis of carefully selected international case studies, in accordance with the main components for a sustainable synergy between ports and cities, as well as continued success in the long term regeneration process, where space is interpreted in an innovative way; protecting resources and the cultural and historical heritage, preserving memories and renewing local identity.

The 1980s began with a phase of urban transformation that changed the appearance of many European cities by eliminating the use of industrial areas, port facilities and railways. This process of transformation introduced the cultural zone, residential, commercial or tertiary facilities, focusing both on the need for integration of different procedures in order to facilitate the realization of complex operations. Marshall's [1] criticism made for waterfront developments marking the danger of seeing waterfronts as cure-alls for problematic cities and that a "rubber stamp" waterfront design can deal with the issues is noteworthy. "Busquets [2] defines the state of today's city as fragmented and once again the public space as a strategy that can provide cohesion for the city which consists of parts (each with its independent management and projects). The waterfront would have to act as such a cohesive space.

Today, the construction of the waterfront also reflects the multipurpose and multi-modal thinking that dominates the town planning and designing of the modern era, which, at the same time represents a departure from post-war paradigms. The common principles, mainly related to the mixed-use of pedestrian character were applied within the frames recognizing what makes waterfronts special. Usually, these are their history, nature, challenges /opportunities that are related to their post-industrial state, and their central position in the city. Within the planning of the waterfront, the emphasis is on communication, because the planners' approach is to strive to overcome barriers, and to foster the interaction between water and land, for workers between the port and the urban fabric. It should be noted that waterfront renovation projects, which are currently being established in many European cities are part of the complex creative operations which today increasingly become a new element to city attractions.

Experience of creative cities may be attributed to the promotion of the territory, the competitiveness of which is based on local specifics related to the value of "city symbol." Such areas are becoming a real "creative clusters" (Sepe [3]), and they are the result of economic initiatives and structural innovations implemented in the appropriate local economic development strategies that are based on territorial qualities and special local features.

Major events and their long-term effects have turned several cities on the water into undisputed protagonists of the latest urban events. The cities of Valencia and Saragossa are among the latest ones, i.e. the most recent cities that are playing on the water and use regional marketing as a resource and for their revitalization. The mix of tourism and culture for local development and



designing a new urban image at an international level by organizing a big event is a widespread formula that is now established (consolidated) in many successful experiences (Sepe [3]).

Typical examples of renewal of “creative clusters” of coastal zones can be found, in addition to the area Hafencity in the Guggenheim Museum, in Bilbao, Valencia, in the Baltic, in Newcastle, at the Albert Docks, the Tate Gallery, in Liverpool and the museum in Antwerp.

Barcelona, Marseille and Genoa have always been three harbours, each determined by their specificity; especially interesting as samples for the study, and today, each for a key and the precise role they play in relation to the Mediterranean and continental regions, and at the same time, due to a tendency to be increasingly recognized, not only as separate entities, but perhaps in the most interesting way, as single entities.

4 International case studies

4.1 Barcelona

The city of Barcelona has undergone a significant change since 1980. This urban transformation was the result of three interrelated urban processes: the improvement of the transport system and infrastructure, the construction of centrality, and economic reconversion. Holding the 1992 Olympic Games was another impetus of urban transformation; four of twelve Areas of Centrality were the Olympic installation. They have directed property development and stimulated neighbourhood revitalization where they were located (Riera and Keogh [4]).

Barcelona is a pioneer in the use of large-scale events to promote the city and its neighbourhoods. These events have resulted in large development projects, Port Vell, Port Olympic and Forum 2004, all of these events acted as engines of redevelopment of the attractive coastline and promenade, the high-end housing and the shift from industrial production to economic knowledge. Barcelona is also known as a prominent example where the embodiment in public areas is accepted as a factor in the overall success, using its high-quality waterfront urban areas as a part of improving urban policy.

4.2 Marseille: the active port vs. the urban fabric

Consultation, diversification, urban form and architectural form, partnership and sociability are the principles that have been represented in the process of urban regeneration of the Port of Marseilles as part Euroméditerranée project. This process was strategically managed by diversified activities and processes involving the community and evaluating possible scenarios of strategic development, in order to define and implement a joint project that will bridge the gap between the city and the sea. The connection between the port space and public space was created along the waterfront and gap was overcome and



enabled “coexistence” between active port and populated city that preserves its historic and cultural resources, and its identity as a port [5].

From this perspective, the problem has become a strategic resource, and many studied examples in the best way show that the worst social problems arise when a public space is not working. Therefore, just the availability of space ready for the modification was the starting point to a local “regeneration”. That is why public space in the context of urban renewal becomes a challenge, opportunity, resource, perspective.

4.3 Bordeaux

The waterfront renovation in Bordeaux is an excellent example of cultural regeneration, creative transformation and socio-economic change, whose success in 2007 brought this historic city to the definition by UNESCO as exceptional value and in 2010 it won the award European City of the Year granted by the Academy of Urbanism [6]. During this process, the strategy was not the construction of a mega structure designed by big names in international architecture, as in other cases of the waterfront and the renewal of the waterfront area, including, for example Barcelona, Valencia or Hamburg, but a number of medium-sized urban interventions aimed at linking different cultures and the mainland of both coasts, and improving of the quality of life, encouraging people to bear the costs of restructuring. In this long process of transformation, the population was cooperating in a variety of ways which led to the adoption of common needs, and support of residents and stakeholders (Matteini [7]).

4.4 Hamburg

The Hafencity project in Hamburg is known as one of the largest and most ambitious in Europe. Although it provides only a partial recovery of the port warehouse, this project has the intention to restore the historic part of the city and to give it the identity of a maritime city.

Reconstruction of the coast was divided into several stages. During the first phase attention was focused on the theme of water, which is understood as an element around which the economy of the city was developed. Then it was followed by a phase that, on the one hand, was characterized by the disappearance of the shipyard as the city has concentrated on the opposite side of the harbour, coast and river, while on the other hand, this phase was characterised by expanding to new sectors. In the next phase the growth of tourism had a fundamental role in launching the strategy of redefining the port system. Then the communication phase followed, with the launch of a public debate on the subject of the port and its re-draft that included the participating of citizens through exhibitions, conferences, competitions and publications [8].

The process of regeneration of Hafencity zone in Hamburg is the operation of the largest urban scale requalification in Europe. With its surface of 155h, the project envisages, in the interval of 20 years, the implementation of a new part of the city which would be surrounded by water, and would be intended for living, work and play. The project includes various factors, including historical identity,



multiple uses, preservation of public spaces, as well as almost all of the “10 principles of sustainable development of urban waterfronts,” which were established during the United Nations Global Conference Urban 21, held in Berlin in 2000 [9].

4.5 Rotterdam: the port in the city

Rotterdam Port makes the city one of the major ports in the world along the way thanks to the great capacity of the “institutional adaptation” and “innovative” planning based on policy coordination, expanded participation in decision-making processes, cooperation between the different agencies and entities; it is hard to distinguish the port from the city. Revitalization of the area of 202 hectares has transformed a very derelict space to an area that in only a few years has attracted businesses, residents and tourists, thanks to the integrated planning and coordination between different work teams (de Greef [10]).

The regeneration program for the port area has become an integrated project at an urban level, strategic for the city and its residents, and it has been developed with a special focus on public interest and social goals.

Each of the above mentioned territories (*Barcelona, Marseilles, Bordeaux, Hamburg, Rotterdam,...*) of waterfront urban renewal is a unique case, and they represent a sufficient acknowledgment of the diversity and local compromise in relation to the developed programmes. Analysis of these cases highlights several important aspects of introducing diversity through each case study: philosophy of urban management; the political concept of urbanization; characteristics of the site; local urban dynamics of city and port, etc.

When we talk about urban waterfront regeneration as a sustainable way of transforming the space and the importance of interdisciplinarity, it is appropriate to also mention several important general guidance points at a European level such as the National Agency for Urban Requalification (ANRU – Agence Nationale pour Renovation Urbaine).

These principles are the common denominator of the successful researched examples of waterfront development, and they include: “consultation: citizen involvement from the initial stages of regeneration projects as a key element for the success of the entire operation; diversification: the prediction of different typologies of accommodation, enhancement of existing functionality, easy cultural and social integration, urban and architectural form: re-modelling of the settlements, rehabilitation of buildings, deconstruction and reconstruction, personalization, to give a new quality of residential habitat; partnership: cooperation among all local stakeholders (government authorities of different levels, the third party sector, entrepreneurs) who are involved in the requalification project is the driving force of the effectiveness and efficiency; sociability: an operation in settlement and architecture is the opportunity to define the project of social development, education and public services, economic development, local employment and the administration of the city” (ANRU [11]).

Researched international case studies as examples of successful urban waterfront regeneration, although separate and distinct from each other, have

inspired the creation of the “10 Principles of Sustainable Development of Urban Waterfronts,” which were defined during the United Nations Global Conference Urban 21, held in Berlin in 2000 and which was developed in the seminars promoted in collaboration with the International Centre of Cities on Water in Venice [12]. These principles were adopted at the WaterfrontExpo held in Liverpool in 2008 and can be the link to a complex and common process of transformation and the key to a positive impact on an urban and territorial level.

1. Determine the quality of water and the environment. A prerequisite for the development of the shoreline is the quality of water in systems of streams, rivers, canals, lakes, bays and seas. The city administrations are responsible for the sustainable recovery of deserted coastlines and for remediation and clean up of polluted waters.

2. Waterfront is an integral part of the existing urban fabric. New waterfront interventions should be an integral part of the existing city and the territory thus contributing to its vitality and local development. Water is part of the urban landscape and should be used in a clearly defined purpose, such as transport, culture and leisure (recreation).

3. Historical identity gives a character to the place. Use of the combined wealth of events, landscapes, nature, presented by water will give the character and significance to the waterfront. Preserving history and local traditions is an important element of this renewal.

4. Multi use is a priority. Coastal area should offer a variety of activities of cultural didactic, commercial, housing type that will properly use the presence of water. Residential neighbourhoods should be mixed both functionally and socially.

5. Public access is a prerequisite. Waterfront must be accessible visually and physically to residents and tourists of all ages and revenues. The construction of public spaces should be at the highest quality level in order to allow their frequent use.

6. Planning within public-private partnerships speeds up the process. Development of new waterfronts should be presented from the perspective of public-private partnerships. State institutions should coordinate policy in terms of interventions projects and aspects of management, as well as to guarantee the quality of planning and social equilibrium. Private institutions should be involved from the very beginning to be well acquainted with the market and accelerate development.

7. Public participation is one of the elements of sustainability. The city is supposed to have benefits from sustainable development of the coastal area, not only in ecological and economic, but also in social terms. The population should be well informed and involved in decisions and processes from the very beginning.

8. Waterfront developments are long-term projects. They need to be gradually used so the entire city can derive benefit from their potential. This is a challenge in the long run that has a need for a variety of disciplines and types of actors. Public administration must give incentives from a political point of view



as well, in order to guarantee the realization of the objectives independently of economic conditions and short-term interests.

9. Revitalization is a continuous process. All urban instruments should use a detailed analysis of the function and importance of the coast which is the subject of this process. Plans can be flexible, can adapt to the changes and include all disciplines.

10. Profit of shoreline of international networks. Renewal of the coast is a very complex task, which recruits professionals of various disciplines. The exchange of knowledge within the international network of contacts may include shorelines and provide both individual and global support in major projects, completed and current ones (Giovinazzi [13]).

5 Mediterranean context and identity

Mediterranean complex context is contributed by the need to address current life needs and their satisfaction: immigration, fast mobility, heterogeneity and growing fast numerical, cultural and religious variability of the urban population, uncontrolled progress of mass tourism industry, of which the Mediterranean, and particularly its port towns, are a privileged target, forcing constant adjustments, additions and substitutions in the definition of urban systems. Identity of Mediterranean towns is constantly faced with current rapid transformations, assumed a more complex meaning in prescribing logics that govern them and simultaneously define them, both within themselves, to solve its systemic dynamics, and elsewhere, as a steady and hidden connected and simultaneously differently unique and special. More than in the past, the identity of the port cities of the Mediterranean basin represents a value, an additional determinant, what sets it apart and qualifies it at a local as well as global level.

6 Montenegro's case studies

6.1 Arsenal in Tivat: Porto Montenegro creative regeneration of waterfront

Joint preservation of the industrial and maritime heritage of the Adriatic is of great importance and may have pronounced synergistic effects and its complex and broader geographic consideration multiplies its effects.

All these shipbuilding and ship repair assets are connected by common historical destiny, and even the preservation of the industrial and historic heritage of the Arsenal in Tivat, should be considered in the context of a legacy of the whole geographical territory of the Adriatic Sea and all adjacent countries and, in the near future, the Mediterranean – the Adriatic part of united Europe;

The Arsenal in Tivat, which was built in the late 19th century by the Austro-Hungarian Navy, is one of the first occurrences of industrialization in the area of Boka Kotorska. Also, it represents a significant part of the industrial and maritime, in particular, military-maritime heritage of the entire Adriatic. In its 120 years of existence, it is connected with many historical, professional,

political, geo-strategic and other aspects of similar or equivalent institutions, on the shores of the Adriatic.

The initial idea during the valorisation and organisation of the space of 165 hectares was the formation of a coastal place oriented and open to the sea which, during the season and off-season, will function actively, in accordance with the needs of the population, visitors and users of space (fig. 1). This is achieved by planning an exclusive nautical tourism centre and sustainable marina with 850 berths, which will be designed for the reception of mega-yachts, and small boats

THE VILLAGE | MASTERPLAN

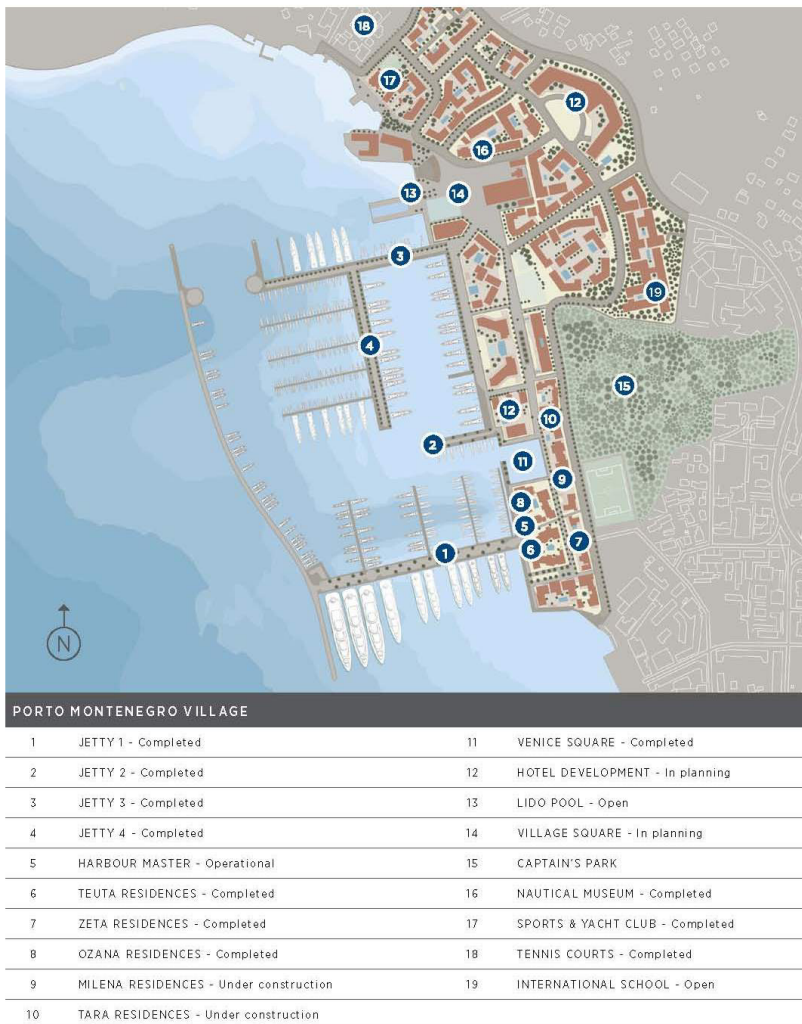


Figure 1: Porto Montenegro, Master plan.



for sport and recreation. These amenities have requested the planning of other activities as well, such as residential business, commercial and service activities, which, depending on the needs and interests, will benefit the users and visitors in different utilization regimes (during the season and low season) [14].

Transport accessibility, creation of new urban matrix, the introduction of exclusive content of nautical tourism, adequate tourist offer, connection of the place with the contents in the surrounding and focus on natural values of the place were all together the prerequisites for this area to experience a transformation and affirmation as a tourist destination of the highest category.

Completion of this complex and its subsequent operation will create a significant revenue generator for the labour force in Montenegro. This exquisite marina will attract very wealthy mega-yacht owners and guests in Montenegro, having a positive impact on all those sectors of the economy serving the market of high paying tourists, such as private banking and real estate agencies.

Transformation of Arsenal in Tivat (Porto Montenegro) is an excellent example of waterfront creative regeneration which has become an integral part of the existing urban fabric and it has contributed to its vitality by preserving industrial past as an integral element of sustainable redevelopment. Porto Montenegro Waterfront has become part of the urban landscape of the city of Tivat and has been used for special functions, such as transport on water, entertainment and culture, housing, leisure ... and its benefits are reflected not only in ecological and economic terms, but also social ones. The proposed complex Porto Montenegro would bring a lot of positive impact on national and global development strategy for Montenegro. The place with intensive traffic and economic development, which once was damaged and inaccessible area of the city, became one of the most valuable areas on the Montenegrin coast which implements its development at the local level and is presented and promoted at an international level.

6.2 Port Milena Waterfront: from disconnected landscape to sustainable port

The project is the product of cooperation of the studies from Venice and Montenegro in response to the program guidelines as defined by the Government of Montenegro for the requalification and rehabilitation of the zones of very sensitive heritage in terms of natural and physical inherited structures.

The locality of Port Milena is positioned in the eastern part of the Municipality of Ulcinj and it is developed around the channel harmoniously at the length of 3.6 km and the area of 120 ha. The channel Port Milena is man-made, in fact it was made on the order of Montenegrin King Nikola at the end of the 19th century, in order to drain the swamp area where the salt works is located today. An interesting aspect of the water flow is that the channel was made with the aim to make fresh water from the hinterland flow into the sea, however, because of the currents, sea water started to flow into the channel going all the way to the swamp area. The area occupied by water is 28 ha, and the width of the channel varies from a minimal 48 meters to a maximum of 94 meters, with

the average of 36 m. The widest part is located eastwards, and the channel flows into the sea in the south between the Cape Djeran [15] and Velika Paža (Big Beach); one of the most beautiful sandy beaches of the Adriatic Sea. Big Beach is 12 km long and its potential will be discussed in the next section.

Analysis of urban and architectural reality of this territory has established the social issues, individualism, which stems from widespread illegal construction and lack of control in the territory. Illegal construction is a phenomenon that has developed in recent years, which seems unstoppable, and it produces the risks leading the town of Ulcinj to collapse, preventing any economic development, and above all, the development of tourism.

IZVOD IZ PLANA NAMJENE POVRŠINA

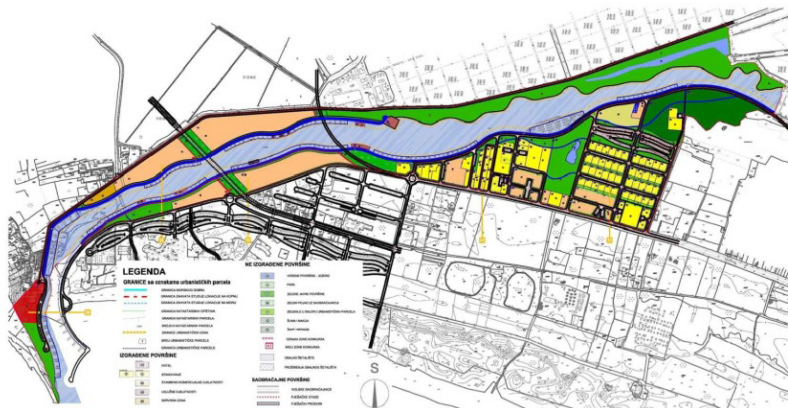


Figure 2: Master plan – Port Milena Waterfront.

Lack of integration in this area with the town, the alienation of the population, poor tourist attendance, poor water quality, unused extraordinary landscape characteristics and diversity and loss of identity are just some of the critical points that trigger the process of redevelopment and allow different scenarios. To respond to this critical reality, which is present on the entire national territory, not only in Ulcinj, the plan proposes solutions of social sustainability. In the region of the channel, the marina with about 350 berths is planned, which would be integrated with future programs (commercial, recreational and cultural) across the pedestrian promenade that follows the coast channels, while urbanity of new residential areas – housing typology of collective type is seen through a multitude of great public spaces interconnected with aqueous fluids and pedestrian communications and revitalized linear public spaces along the canal (fig. 2).

Plans include also buildings of tourist resorts, dock, lighthouse, works on the main infrastructure, thematic parks, equipped green areas, maintaining the local vegetation, sport and areas for providing hospitality services. Such project selection enables satisfying the wish for development of marine and inland

navigation, and that the zone become especially attractive for international investment and tourism.

Proposed interventions would encourage the revival of the channel coast of Porta Milena and its linkage to the coast, with the city, and the articulation of a new promenade along the entire length of 3.5 km canal to allow the beginning of the dynamic process of change in these areas, thus creating the conditions for the creation of the planned secondary centre of this municipality.

These activities should preserve the landscape, cultural and natural heritage, and they should improve economic conditions, public and private ones, and eventually, they should increase the awareness among the population of their own environment [16].

This example of urban waterfront regeneration could become unique in the Mediterranean because of its local features, multicultural diversity, the contrast in scenery, great natural characteristics, rich biodiversity, then the strategic cross-border connections and relations with neighbouring Albania with which the municipality of Ulcinj is bordered. The area of Port Milena is also important for the broader context of the city, the region and the whole of Montenegro, and through its valorisation and future development it can be of great international importance [17].

6.3 Velika plaza (Big Beach), “Velika plaza: challenge of a life time”

Port Milena Waterfront is the gate, the entrance to the next case study, Velika plaza with its hinterland territory exceptionally qualified potential to become an attractive tourist destination, having in mind the fact that in the 80s it was one of the most beautiful beaches in Europe. In accordance with development guidelines provided for in national and local plans, the area is recognized to have potential for tourism development. Its natural and cultural characteristics enable supply of various alternatives of hospitality buildings so that different target groups can be satisfied and demands of the international market can be met [18]. As a commitment of the master plan for tourism development, the regional master plan for tourism development in the Ulcinj region has recommended Velika plaza as a site model for the development of a high quality tourist complex because the space of this beach is unique on the eastern coast of the Adriatic Sea and is largely owned by the state, so it is necessary to deal with the complicated issues of ownership, because in this space not much is built, and this provides an unusual chance in the Mediterranean to achieve a “great and long-lasting tailored unique concept,” because the size of the space provides a permanent, yet the rich use to the extent to achieve significant economic effects for the region and Montenegro, because Ulcinj so far remained undeveloped due to its geographical position on the border, but the neighbourhood with Albania allows cross-border cooperation in many tourist areas [19].

Velika Plaza was chosen as a model project in order to avoid unplanned construction and simultaneously define the target frame for the economically interesting and environmentally acceptable gradual reconstruction. The area Velika plaza covers about 1450 ha. Out of this, 400 hectares are tourism groups, and 30 hectares has been earmarked for communications. The arranged



recreation area covers about 120 hectares and the zone of beaches and dunes about 280 ha. The remaining 620 ha is planned as a free space – untouched nature (protected area).

The main pedestrian axis is about 10 m wide. This multi-functional boulevard is the most important part of the whole concept. Lengthwise, it connects various modules and offers comfortable access to the recreational facilities in the green belt. The construction on Velika Plaza is concentrated on the western part, and the environmentally sensitive area in the eastern part will be kept free as a natural park and protected from human impacts. The construction will be divided into individual units, called “modules”, among which a public free zone will be located. These green belts divide the buildings, preventing the formation of continuous settlement, and serve to residents and tourists as a place for recreation (fig. 3) [20].

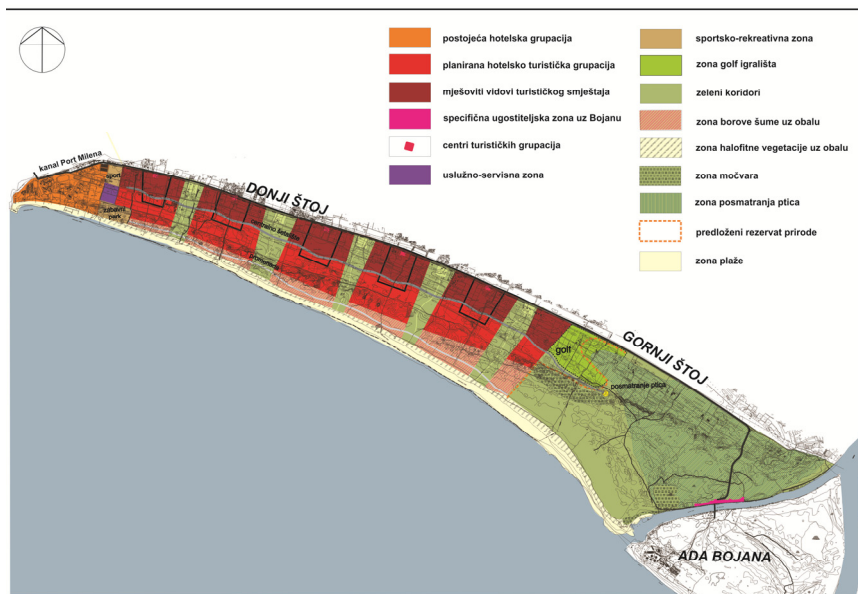


Figure 3: “Velika Plaza” – general concept.

“Velika Plaza, challenge of a life time” – in organization of the Ministry for Spatial Planning and Environment, sponsored by the Government of Montenegro, the sustainable waterfront community has been implemented as an international master planning competition which has given a vision for the future development of this area.

The vision and positions represented by the state are to develop an exemplar high category sustainable waterfront resort community providing a wide range of uses and community facilities, including workforce housing. Given the scale and linear nature of the site, it is envisaged that a number of distinct “places” or neighbourhoods will be created, each distinctive and attractive in their own right

but cohesive within an overarching masterplan and design framework. A leading edge environmental, economic and socio/cultural sustainability ethos will permeate all aspects of the development, from masterplanning through to operation and long term management” [21].

The winning company is Van Den Oever, Zaaier and Partners, architecten Amsterdam/Stijlgroep Landscape and Urban Design Rotterdam/eth.

The winning solution views on development of Velika Plaza as a unique opportunity to develop the landscape in symbiosis with the buildings and to reinforce and repair the landscape structure.

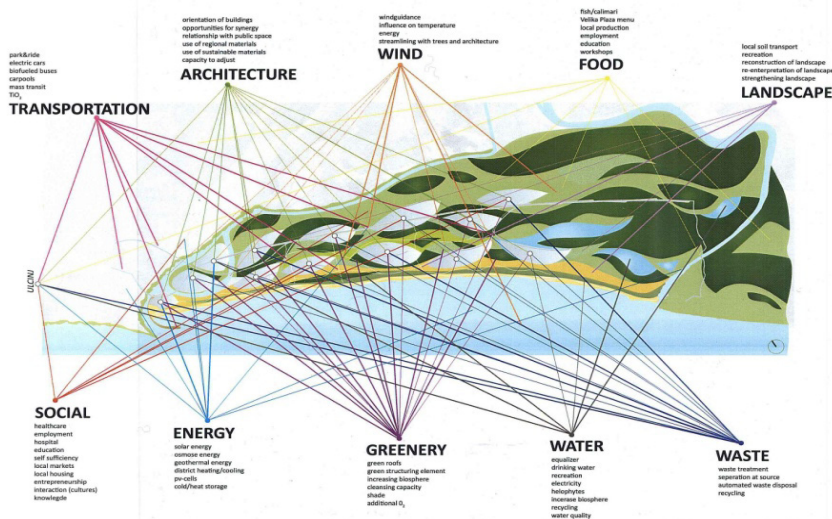


Figure 4: General concept: winning solution for Velika Plaza.

The basic development potential and objectives of the master plan are, as follows:

- Retain, reinforce and expand authentic atmosphere at the edges of the planning area;
- Velika Plaza is unique in scale and dimensions.

Other projects along the Adriatic coast are small, intimate spots in a hilly landscape, offering a completely different experience of the coast – much more intimate and smaller scale than Velika Plaza. Velika Plaza is unique in its scale, dimensions and possibilities, and for this reason represents a significant addition to the existing development along the coast.

The development of Velika Plaza offers a unique opportunity to develop the landscape in symbiosis with the buildings and to reinforce and repair the landscape structure. In addition, unique functions that reflect the unique qualities of this area can be sought. This is an area for walking, swimming, contemplation, nature experiences, water sport another form of leisure

- Integral design approach: inter-relating plan and landscape.

The landscape and the sea have a direct influence on the direction of the design

decisions. This will create a symbiosis between the sea, the landscape and the urban development plan. Panoramic views will be linked to the built environment. This iconic location combines nature reserves and public spaces in a natural way. The continuity of the landscape and the built environment will be achieved through the introduction of transitional zones, whereby the structures can naturally flow into one another. This organic approach will be reinforced by the layered nature of the landscape and its organic relationship with built environment (fig. 4) [22].

In addition to the above mentioned ANRU principles and analysis of relevant planning documents, the development strategy of the Municipality of Ulcinj, as well as several national strategies and European and directives, the tendency was to allocate and implement the strategy for the future development of the principles of sustainable development of urban waterfronts. These principles can be stated as follows: quality of water and environment must be provided; waterfronts are part of the existing urban fabric; historical identity gives a character; mixed use is a priority, public access is a prerequisite; private-public partnership in the planning accelerates the process; participation of public is an element of sustainability; waterfronts are long-term projects;

7 Conclusion

After analyzing many planning documents for the waterfront development, in addition to confirmatory “10 Principles of Sustainable Development of Urban Waterfronts”, many common key criteria are recognized for a successful future of these interventions, and these are: Locally specific-creating of waterfront with specific features which reflect local diversity, values and characteristics. Connected – visual and physical connection reintegrates waterfront with immediate environment, city centre. Public – providing access to the waterfront. Public participation in shaping of vision for waterfront construction.

Multi-use – implementing of various purposes which enable whole day and whole year activity. Multi modal: providing quality infrastructure for all types of transportation. Dynamic waterfront reflects and constantly changes due to economic and cultural changes that occur in the city [23].

In order to support long-term evolution and success, the waterfront should be planned and designed so that it contains elements of flexibility that will enable them to adapt to change.

Transformation of the waterfront relating to the territories which operate as a system that had not been planned for construction earlier refers to strategies that respond to the new dynamics of the market and leads to intervention at various different levels of sensitivity, practical approach and conceptual freedom which is based on location observation and urban process.

Regeneration of the waterfronts represents an extraordinary opportunity for cohesion and “uphold” territory as a whole, the ability to become the engine for sustainable development, and therefore the waterfront developments have become real “laboratories for experimentation” and the central theme of planning [24].



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