Waterfront landscapes of the 21st century.
Architectures for travellers along the Water-City threshold

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In the last decades, the cities have gone through huge sea changes that affected the way of living a territory. The fundamental communication codes have changed within the relationship system and the concept of limit has more and more lost its significance, and so the relations between public and private spaces have been modified, the cyberspace replaced the traditional meeting places, radically modifying the socializing mechanisms.

The 21st Century complex and stratified city takes the form of open but often undefined configurations, constantly changes itself moulding new shapes, structures and customs to meet the emerging social and cultural phenomena of our times. The contemporary city can be described like a big patchwork made of relationship systems, ways of use and the coexistence of past and present worlds that cohabit in new ways. The evolution of the urban fabric of this city, more and more often takes place through replacements over, integrations and connections among parts of very diverse characters.

Nowadays the city lives on transactions and exchanges of ephemeral and symbolic values, rather than of the production of assets. Its most precious value is in the image and appeal is able to create. The city telling comes before the real city and often influences the way the masses of travellers encounter a city and its portrait, made up of a complex heterogeneous composition of physical and virtual elements.

The new ways of living the city have created an extremely complex system of coming and going of people, crossing everyday the big metropolis, constantly moving for work, study and enjoyment reasons. These dynamics have entailed an increment of the means of transport and of the tourism that, though once was linked and limited to the classic summer vacation, has now been developed to include a variety of situations where the motivations work-study-enjoyment interwine and contaminate themselves to become coexisting reasons within the same journey.

The problems linked to the earth’s health have also influenced the way of conceiving tourism, that has been organized and ruled by new concepts described in the European Charter of Sustainable Tourism; it contains the guidelines and principles that govern the fruition and organization of sites in respect for the environment and for the cultural resources of places. Within the definition of eco-tourism or Responsible Tourism, some key-elements have been highlighted: respect for the ecosystem and biodiversity, reduction of the environmental impact of structures and activities linked to tourism, preservation of the traditional culture of the local community, active hands-on of the local community in the running of eco-touristic enterprises.
The concept of Responsible Tourism was born at the end of the eighties, and it has often been used in literature and by the media assigning it many variations: Solidal Tourism to show solidarity activities towards the Third World, Conscious Tourism to refer to a correct use of the available resources, Sustainable Tourism associate with the economic concept of sustainable development, able to influence and determine dynamics of the tourism market, Territorial Tourism that devoted to the direct acquaintance of the inhabitants and to the features of the identity of a place. In any case, it does not exist a precise definition acknowledged worldwide.

In 2005, the Italian Association for the Responsible Tourism has given the following definition: "the responsible tourism is the tourism carried out according to the principle of social and economic justice and in full respect of the environment and the culture".

On the basis of the ethical codes of sustainability, the touristic business must not impoverish the destination of the journey, can become instead a pole of a driving force for an economical and social development in the single destinations.

In Italy the tourism along the coasts has a long tradition documented by vintage postcards, travel guides and moreover by the presence of marine architectures, either temporary or not, spread along its coasts. During the summer, Italian and foreign tourists literally make a rush at the touristic waterfronts; to get a more precise idea of the length of the Italian waterfronts, we should focus on these figures: the waterfront of the Mediterranean Sea is 46.000 kms long, half of which (20.000 kms, Unep 2006 report) is taken up by buildings, among the 23 countries overlooking it, Italy holds a real record with its 196 towns spread along around 8.000 kms of coasts, being more than one third of all the urbanized territories in the Mediterranean.

The shore line in Italy is a precious resource, where the environment vulnerability and the energetic sustainability of the urban development become exemplary and paradigmatic. The shape of peninsula is a great value as far as concerns the tourism along the waterfronts, nevertheless the property speculation in the 60s and 70s and the arbitrary administration of the public administration have caused an indiscriminate overbuilding of the Italian coastal areas.

In Italy the tourism is like a two-edged-sword, because from one hand attracts a lot of people from all over the world, by virtue of the artistic environmental and architectural values that still characterize a good percentage of the territory, however, on the other end, the tourist flow is huge only in the six warmest months of the year, entailing an on-off management that would require to be balanced through alternative activities that may be practiced also during the coldest months.

The waterfront systems could tell the evolution of cities and territories, favoring the understanding of the more recent transformations and stimulate the making up of future scenarios. These places are in continuous evolution, where resources and potentialities to succeed can create new imagination and new landscapes within renewed market dynamics, brought about by new social needs in respect of the pre-existences and of the local identity.

A long series of circumstances stratified in the course of time have determined the complexity and the problematic nature of the Italian waterfronts, that still keep, however, in as much obvious manner, their treasures in terms of resources and chances to succeed; they are places in connection with the historic city, scenographic parts of high visibility for the all city, spaces for interaction between two different systems, earth and water, areas of great economic development and heavy traffic of people and goods, once deteriorated and inaccessible and now a subject of growing
interest from both the community and the community of experts and the local administrations, becoming a main topic for the urban regeneration politics of the urban fabrics.

The waterfront cities should be conceived as a patchwork of different fabrics, considering the possibility of using water as a traditional urban fabric, planning a specific functions system on it, such as transports, leisure, cultural educational activities, etc.: so as they may benefit from the aesthetic qualities and the surplus value this element may provide. The revitalizing of these urban areas needs plans based on standards of flexibility and versatility, as it requires the presence of many players and rather slow times of assimilation, involving different subjects. The extension and the complexity of the territory require, furthermore, continuous redevelopment process that call for open and flexible projects, able to conform over the time to the sudden change of the markets and of the needs of a globalized society; so, it is about projects that do not include permanent spatial and functional solutions.

**Five diagrams**

Along the coasts of Italy we can detect some types of combination of situations that recur frequently. Through the observation of some cities, but also portions of coastal territory, it is possible to trace at least five types of water-town (Fig. 1) relationship: from the purest, in which the two elements are in close contact, to the most contaminated in which two parties present a solution of continuity very critical and difficult to resolve.

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<th>WATER ↔ BUILDINGS</th>
<th>1 ↔</th>
<th>2_SOFT EDGE</th>
<th>3_HARD EDGE &lt; 2 meters above sea level</th>
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The premise of this abstract reasoning is the will to summarize the issues presented in the areas of the waterfront in a few simple elements, in order to guide the redevelopment of their parties without losing sight of some major objectives:
- to connect the city with water
- to return to the people all the parts of the waterfront
- to make the waterfront attractive throughout the year.
Within a waterfront may occur more types of water-city relationship because, obviously, the terrain will determine every situation and the analysis of soil can regular the type of specific intervention. The descriptions of the five diagrams have the intent to identify the main issues of each situation and their design approaches.

Figure 1. Diagrams of the five situations of Italian coastal waterfront
1. **Water - Buildings**

In the case where there is a direct relationship with water, the problems are mainly technical because of the buildings are too close to the water that must be controlled and regulated by the massive intervention to protect the buildings. Building water features often contain outdated because they are linked to specific social and economic systems of a certain age that have little shared with the current dynamics. These buildings may be drained and converted to public functions to attract more people throughout the year: museums, theaters, cinemas, workshops, schools, multi-purpose areas, etc. The redevelopment for public use often suffer from the comparison with the safety regulations of the buildings both as a matter of stability of the structure who for reasons of fire prevention. It is therefore necessary to adapt existing and develop new routes outside, preferably removable, to enhance the access of large numbers of travelers.

2. **Water - Soft Edge - Buildings**

When there is a beach between the water and the buildings, you have to take account of the attack between the urban texture and the beach, retraining the boundary between the driveway and sand. There is often a huge shortage of parking spaces or a heavy vehicular traffic that must be addressed by finding effective alternatives: decentralizing any neighboring port activities, conveying the heavy traffic on roads outside, creating new roads and underground parking, and building the thickening nip-beach road so as to find new spaces for public services that are not only linked to the activities beach but fail to attract visitors during the winter months. If the front of the city is very far from the beach, you can build a new front with a section that allows shots of the seascape from the windows of old buildings, redeveloping the image-face view of the city from the sea.

3. **Water - Hard Edge < 2 meters above sea level - Buildings**

This is the most common situation in a waterfront because it concerns the docks or the seaside promenades often built from the foundation of the city. They are borders built in stone where there are functions still current but which do not often include public ones, such as cultural activities and entertainment. In these cases the difficulty is how to bring together these new features with existing ones mainly service to the marina or commercial. The existing seafront promenades have been often invaded by enlargement of the port or by the extension of roads during the last century. In other cases, the saddest, were destroyed by earthquakes and tsunamis and rebuilt by not respecting the ancient vocation. The port functions, especially tourist facilities, offer many opportunities of attraction but you have to manage the proximity of the two ports that require an extensive reorganization of the design features to make public most areas of the commercial port.

4. **Water - Hard Edge > 10 meters above sea level - Buildings**

This situation is rare in the theme of the waterfront. This is a very special orographic relief because it consists of a high cliff. Sometimes the pad has a highland village which has no physical relationship with the sea. In these cases the most direct solution is the installation of panoramic lifts, racks and cable cars. The design problems are mainly technical and environmental impact. The result can add great potential attractions for travelers, enable tourism development that did not exist before or were confined to only a few users. The difficulty of protecting the sites from the invasion of mass
tourism is another very delicate issue that can be addressed by creating tourist functions related to extreme sports like free climbing, bungy jumping, leisure flying with Ala Rogallo, etc. In this way it is possible to attract tourists from around the world willing to use the facilities all year round and even at high cost.

5. Water - Infrastructure - Buildings

This is the situation more difficult to solve. When an infrastructure makes a break in continuity and is used by many users, and is connected to the system of the neighboring ports or airport, a redevelopment of the waterfront requires large economic efforts. In this case you have to deal with the infrastructure system and understand how it stays in the waterfront, working on the image of the urban front. If there is a public road or rail line they can be shifted under the city or on the water. If it's a viaduct or aqueduct, etc. you can think of using it as a framework on which to hang the new features, addressing the urban front like a multimedia computer display of big size, visible at great distances. If there is a railway sea station or an airport you have to reconstruct a new front on the water equipped with all the features and connections necessary to eliminate the gap between parts of the city that would encompass the megastructure. Both stations and airports are already shopping, then just add cultural and recreational activities to turn these non-places in parts of the actual city.

Conclusions

The paper contains a summary of the progress of research conducted on the waterfront of the Italian coast. This study has resulted in winning a top prize at the international competition of ideas for the redevelopment of the Waterfront San Leone in Sicily. The research is still underway and is expanding its scope to the study of waterfront lagoon, river and lake of the Italian territory.