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il mare e
la città



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Abstract

Sea and the city: maritime identity for urban sustainable regeneration

Massimo Clemente

Abstract

The extraordinary shape of seaside cities - that we can better appreciate from the sea - is the result of the synthesis between urban culture and maritime culture. This harmonious union of maritime and urban cultures offers a different point of view that is full of charm and semantic values.

Seaside cities – in particular port cities - have been a really central theme in architectural and urban debate of the last few decades. The suggestion behind the research is that to understand coastal and port cities we should move our point of view from the mainland to the sea. Only if we referred to maritime culture we could really enter into urban culture of sea cities.

The contribution describes theoretic and methodological results of activities that, since 2009, the Group “City and Architecture” of the National Research Council of Italy has carried out about the relationship between city and sea. The starting point



Fig. 1 – Land, water, human settlement and sky: maritime landscape at Positano, Amalfi coast, Italy.

is considering the maritime interpretation of seaside cities as a relevant issue for an innovative research related to urban planning and design in coastal urban areas.

The first phase of the research project is concerned with an original multidisciplinary methodology based on a mindful maritime re-interpretation of architectures and urban spaces and, generally, of coastal urban areas. The second phase is aimed to refer the research results to real case studies with the broad involvement of multidisciplinary scholars, stakeholders and policy.

The approach has permitted an original review of the waterfront renewal processes that have been in ever greater number in the last fifty years. The object is to define innovative methodologies and strategies to valorize the maritime identity as key tool for urban sustainable regeneration of sea cities.

Città e mare: identità marittima per una rigenerazione urbana sostenibile

La straordinaria forma delle città di mare - che possiamo apprezzare meglio dal mare - è il risultato della sintesi tra cultura urbana e cultura marittima. Questa unione armoniosa di cultura marittima e urbana offre un differente punto di vista che è pieno di fascino e di valori semantici.

Le città di mare - in particolare le città portuali - sono state un tema centrale nel dibattito architettonico e urbanistico degli ultimi decenni. Il suggerimento per la ricerca, al fine di comprendere le città costiere e portuali, è di spostare il nostro punto di vista dalla terraferma verso il mare . Solo se facciamo riferimento alla cultura marittima potremo davvero entrare nella cultura urbana delle città di mare .

Il saggio descrive i risultati teorici e metodologici delle attività che , dal 2009 , il Gruppo “Città e Architettura “ del Consiglio Nazionale delle Ricerche Italia ha realizzato circa il rapporto tra città e mare. Il punto di partenza è l’interpretazione marittima delle città di mare come una questione rilevante per una ricerca innovativa relativa alla pianificazione urbana e la progettazione nelle aree urbane costiere.

La prima fase del progetto di ricerca si occupa di definire una metodologia multidisciplinare, basata su una attenta re-interpretazione marittima delle architetture e degli spazi urbani e, in generale, delle aree urbane costiere. La seconda fase ha lo scopo di applicare i risultati della ricerca su studi di caso reali con l’ampio coinvolgimento di studiosi multidisciplinari, stakeholders e politici.

L’approccio ha permesso di costruire una revisione originale dei processi di rinnovamento dei waterfront realizzati in numero sempre maggiore negli ultimi 50 anni. Lo scopo è quello di definire metodologie e strategie innovative per valorizzare l’identità marittima come strumento essenziale per la rigenerazione urbana sostenibile delle città di mare .

Keywords

Sea, city, maritime identity, urban culture, waterfront regeneration

Sea and the city: maritime identity for urban sustainable regeneration

Massimo Clemente

1. The maritime approach to cities by the sea and the research route

The extraordinary shape of coastal human settlements is the synthesis between urban culture and maritime culture - a synthesis that is full of charm and semantic values. This is the result of the harmonious union of marine culture and urban culture, what Konvitz defined as “Urban maritime culture” (Konvitz, 1978).

The privilege of seeing seaside cities from the “sea” offers original perspectives but, not everybody can enjoy this opportunity - not everyone can break away from the mainland and sail the sea, going on the water by a large ship or a small boat, whether motor or sail.

The conquest of the sea has had an important role in the history of humanity – nearly equal to the fire discovery. The same history of mankind can be read by a maritime point of view, considering the evolution of naval and navigation techniques. In a similar way, history of seaside cities, as well as their architectures, spaces and urban functions, can be interpreted through maritime history.

These interpretations support a new approach to analysis, design and regeneration of cities by the sea (Lane, 1997; Clemente 2011). Sometimes ships have been considered as architecture on the water – a very special floating architecture able to navigate. At the same time, sea and ships have inspired many buildings, especially on the coast and close to the sea.

The sea city has a particular semantic connotation because it dialogues with the marine elements. The city with its architecture is projected towards the sea and it seems to break away from the mainland as if it wanted to float and navigate. The detachment, in fact, happens in the harbour where ships put out from the docks as pieces of the city standing out and going towards other port cities.

In this way, the ship becomes an element of mediation between the mainland and the sea – a virtual bridge between distant coasts that achieves a continuity. The sea lanes become the tool of marine trades and of cultural influences that combine the port cities in the sign of the common maritime identity.

Seaside cities are the place where water and land meet and clash – complementary and contrasting natural elements. At the same time, sea and especially port cities are the place of cultural diversity and common maritime identity.

The maritime interpretation of sea cities is a relevant issue for innovative research related to urban planning and design in coastal urban areas. Our research group has been engaged in several studies on the relationship between sea and city since 2009.



In December 2011, we published the book *City from the sea. The art of sailing and the art of building the cities* (original title: *Città dal mare. L'arte di navigare e l'arte di costruire le città*). It illustrates the results of the first phase of the research project:

- an original methodology for multidisciplinary analysis of cities and architectures by the sea and, more generally, of coastal urban areas ;
- the application of the methodology to four types of seaside city (Mediterranean cities, cities of Northern Sea, Oceanic cities and river port cities) choosing three emblematic and paradigmatic cities for each type;
- a first hypothesis for an urban planning and design methodology in coastal urban areas through a mindful maritime approach (Clemente , 2011).

The second phase was aimed to refer the research results to real case studies in Italy with the broad involvement of multidisciplinary scholars, stakeholders and policy makers. Naples, Genoa, Trieste and Salerno were chosen as field of the research experimentation and diffusion. The dissemination and promotion have been implemented, in particular, through the conference “Sea and the city. Urban culture and maritime culture for the sustainable development of coastal urban areas” held in Naples at the Conference Centre Villa Doria d’Angri, overlooking the Bay of Naples (2012, September 27-28).

The conference – overcoming some initial perplexity of specialist scholars – put together very different actors but, with the common interest in the sea: scholars from multiple disciplines, marine biologists, naval engineers, architects, planners, designers, touristic operators, real estate developers, shipping companies, professional sailors, port authorities and politicians with specific responsibilities on coastal areas.

In the third phase of our research project, we focused on the specific case study of Naples city and its Bay. We arranged the conference “Sea and the city 2.0. Participation and partnership for local sustainable development in Naples” (2012, April 19-20). The event took place in concomitance with the sail regattas of the World Series for the Amer-

Fig. 2 - The urban landscape from the sea: entering the port of Barcelona by ship.

Fig. 3 - The urban landscape from the sea: entering the port of Saint-Malo by ship.

ica's Cup. There was a strong confrontation about the organisation of such important event in the Bay of Naples. Many scholars, stakeholders and citizens thought it wasn't the right way to act because of the difficult situation of the city and its sea. They stressed that the event had been very expensive and the impact on the city was very limited.

We applied and tested our theoretical and methodological assumptions through debates not only with academics and researchers but with technical and economical associations that are concerned with the transformation of the urban coast of the Gulf of Naples – sailing from Pozzuoli to Castellammare di Stabia.

2. Theoretical and practical approaches to port city issues

Cities by the sea have been a very central theme in architectural and urban debate of last few decades. Scholars, professionals and stakeholders have been very interested in the evolution of port-cities, waterfronts and coastal areas, all over the world.

The process began during the Fifties of the last century, when the evolution of ships and shipping caused the transformation of port areas. In particular, the diffusion of containers modified cargo handling in port areas, originally not ready to the new organisation of maritime trade and shipping. Furthermore, in the following years, the globalisation of markets has affected the maritime transport as well as the whole system of trade in the new economic world context.

First we had the diffusion of supertankers for maritime oil transport. Then container ships become larger and larger, giving rise to the phenomenon of naval gigantism. The increasing ships size has required the development of adequate port facilities that could not always be constructed within existing ports in historic cities.

Some ports that weren't adaptable had gradually lost their role but, those ports gained



Fig. 4 - Ship with containers sailing towards the Atlantic Ocean in the estuary of Tagus river, Lisboa, Portugal.

large areas and building volumes close to the water. These areas have been regenerated mainly because they have a relevant economic value, even though the water was polluted or even contaminated.

The problem is that all these issues of the sea city haven't been addressed through a maritime approach. Politicians – but scholars, planners and stakeholders too – had no vision of the city from the sea. Unfortunately, a real maritime perspective lacked and this negatively influenced most of plans and projects for waterfronts, port cities and coastal areas.

Actually, the theme of the relationship with the sea has been developed especially in the redevelopment of port areas and productive areas close to them. Waterfront redevelopment has been interpreted as a part of the broader process of redevelopment of old industrial areas.

The first significant port regeneration interventions took place in the United States of America, in particular in Boston and Baltimore where the waterfronts were recovered and transformed.

However, at the beginning the phenomenon appeared in New York City where the degradation of the port was the central theme of numerous public questions to the local authority. In 1954, economic and social decay of New York harbour inspired the film “On the Waterfront”, directed by Helya Kazan, played by great actors like Marlon Brando and Rod Steiger. The movie won eight Oscars and influenced public opinion and political actions even if not in New York initially.

In Baltimore, during the Fifties, the Charles Center and the Inner Harbor were restored. Architects and planners considered the regional impact and the relationship with sea (Baltimore County, 1959) so that it is still a valid model at the present day (Wallace, 2004).

Similarly, the objective of the Boston plan was “to achieve reconstruction of the waterfront in a manner which will be symbolic of Boston's historic relationship with the sea” (Boston Redevelopment Authority, 1964, p.5). This attention to maritime culture can be found in the original documents of the Boston Redevelopment Authority. The sea was considered as tool for regeneration of urban coastal area and this should be our mission at the present day (Clemente, 2011).

Over the years, the number of projects of waterfront redevelopment had continuously increased all over the world. If we analyse the approaches and the practices, we can individuate a first phase when projects regard port cities following the container revolution in maritime trade. Economic and physical decay of port/dock areas offered the opportunity to redesign widespread urban areas with a variety of different approaches (Falk, 1975; Moss, 1976; Committee on Urban Waterfront Lands, 1980; Hoyle, 1981 and 1988; Wrenn, 1983; Hall, 1991; Bruttomesso, 1993; Breen & Rigby, 1996; Gordon, 1996; Malone, 1996; Meyer, 1999).

In the Nineties, awareness of environmental topics in coastal areas increased as well as public participation to renewal processes of the waterfronts. The project objective moved from the city to coastal region, especially in the approach and research of geog-



Fig. 5 - Urban Regeneration of the waterfront: the public promenade and the fireboat at the Battery Park, New York City, USA.

raphers (Vallega, 1992 and 2001; Hoyle, 1996; Billé, 2008; Stocker & Kennedy, 2009; Coastal and Waterfront Smart Growth, 2009; Green, 2010).

A new trend since 2000 gave more attention to the maritime perspective and it contributed to a shared methodology at an international level (Marshall, 2001; Dovey, 2005; Bruttomesso, 2006; Hendee Brown, 2009; Salmons, 2010; Clemente, Giovene di Girasole & Oppido, 2012). In Italy, we have had many interesting researches and projects even if few of them have been realized to date (Greco, 2009; Savino, 2010; Viola and Colombo, 2010; BDC, 2012). In fact, the relationship with the sea is weakening more and more in recent waterfront regeneration projects. The recovery of port/dock areas are often addressed as any brownfield sites but they have features and problems that require specific strategies.

In recent years, finally, a more comprehensive approach was developed all over the world (Desfor et al., 2010) and urban areas behind the port were considered more and more. After the renewal operations in port areas, projects moved from the waterfront to the hinge areas of the connection with the rest of the city. However, even in this case, we should stress the lack of awareness of maritime identity as key tool for the urban sustainable regeneration of port and seaside cities.

3. A maritime re-interpretation of cities by the sea

Coastal cities have a specific identity, close to the sea and to maritime culture, including not only traditions but also navigation and all the activities related to the sea. If we want to understand coastal cities in depth, we should go over the traditional approach and adopt the maritime culture to get an original perspective. The point of view from the sea reveals new semantic values – urban spaces and functions assume new significance (Clemente, 2011).

This maritime approach effectively allows us to capture the objective of sustainability in planning for local development in coastal areas. The maritime vision helps us to identify the three dimensions of sustainability in seaside cities. Strategies can be better defined if we refer to the three dimensions of sustainability and, in any case, the three dimensions should always be interpreted in the maritime perspective.

The environmental dimension regards the coast in broad sense and it includes both the sea and the mainland. The coastline is the point of encounter and clash between two natural forces, it's the hinge between the marine habitat and the terrestrial habitat that

both should be protected at the same time. The goal of environmental sustainability in sea cities should be pursued through an integrated action in the water and on the land - for the protection, preservation and enhancement of this particular habitat and transition place.

The economic dimension is the engine of development of the sea city because it encourages the growth, employment and well-being of the urban community. The network of maritime connections is the generator of the economic chain of the sea city. The ship's routes are created to connect the places of production and markets. Ships and maritime routes are the engine of the economy of the sea. Furthermore, ships and routes unite people and cultures – the sea, at the same time, separates and connects.

The social dimension concerns with the urban community of the sea city. People should be allowed and helped to enjoy the maritime resources in both environmental and economic terms. The sea should be accessible to the eye, for navigation and swimming – the sea must be foundational element not only of the urban landscape but also of citizen's everyday life. The maritime identity is the basis of the collective memory that takes shape in the architecture and in the places of seaside cities. An important element of the social sustainability of sea cities is the multiculturalism and the richness of the melting pot that is typical of sea people. (Clemente & Oppido, 2011).

Maritime communities have a particular relationship with the sea, expressed through urban and architectural forms. The sea city is a mix of maritime culture and urban-architectural cultures – its collective memory narrates the life of men sailing on the sea and, at the same time, of people living and working on the land.

Different urban identities express themselves in buildings, spaces and functions, however the relationship with the sea is an invariant factor and it is simultaneously material and semantic. Maritime culture has interrelated and unified all maritime communities, through space and time, in different regions of the world and different phases of human history since prehistory to the contemporary age.

Water covers about three quarters of the planet and it is a liquid substratum from which coastal cities seem to emerge. If we really want to understand sea cities, we should move our point of view from the land to the sea – starting from maritime culture to deepen the urban culture expressed in sea cities.

This new perspective suggests an original lecture of what men have realised on the sea, sailing and conquering faraway ports, as well as on the land, adapting the coast to nautical necessities. We should consider the sea city as the urban expression of that community whose identity has been established on the sea – a fusion of urban culture and maritime culture.

We consider sea cities in the widest sense: the habitat of communities strongly related to the sea, including coastal cities (with no large ports) and river port cities. Cities on the water can be very different depending on quality and dimensions: a small fishing village, a port metropolis, a lagoon city, a city built on canals. Historical port cities can lie directly on the sea or on interior waterways.

There is always a common factor: urban and architectural forms transmit the collective

Fig. 6 - Urban coastline: the built environment pressure towards the beach and the sea, Posillipo, Naples, Italy.



memory of the one great community of the sea-faring life and, at the same time, they express the specific local identity of each seaside city. This vision was the starting point of our process of acquiring knowledge about cities and architectures from a maritime perspective.

Throughout history and at different latitudes, men have transformed their coastal environments, adapting it to their material and spiritual necessities. This has happened through the common culture that unifies all seafaring peoples – it is the expression of a collective memory that each seafaring generation has transmitted to the next one.

Typologies of cities by the sea are quite varied and this could be in contrast with the hypothesis of common elements that define an abstract model – a type of the city on the sea. However, the abstract ideal model – a concept for a focused approach – would help to deepen the knowledge of coastal urban areas and to identify new strategies for a good governance of urban and territorial transformations in the regions bordering the sea.

The sea expresses the contradictory complexity of the human being. It stimulates the will to know through exploration and experience. At the same time, the sea generates fear of the unknown and existential anguish – the fear of being inadequate to the challenges we have to face. From a psychological point of view, a calm sea expresses serenity while a stormy sea expresses anxiety.

Actually, European and Western history is strongly maritime – sea and navigation are a possible key for interpreting the historical process – ancient river civilizations of the Fertile Crescent, the mythological Sea People, the Greeks, the Phoenicians, the Romans, the competition between Christians and Muslims for the supremacy in the Mediterranean Sea, the discovery of America, the great explorations, the European colonization of the “known world” (that is, known by Europeans) and so on up until the present day.

Moreover, the present-day globalization can be interpreted as a phenomenon strictly

related to the sea, to navigation and to maritime trade among main port cities all over the world.

If we go beyond the traditional separation among disciplines we can get the new urban maritime vision. Architects and planners have join up with naval engineers and designers, maritime economists and other specialists to develop together this special approach to sea cities. It isn't just a matter of integration of different themes; rather, we propose to combine different perspectives.

The interpretative route begins on the sea and navigation brings us to the coast – where the water of the sea meets the land of the coast. The cities by the sea reveals itself – sailors and the women waiting for their homecoming, fishermen, explorers, skilful artisans and ship's carpenters. Ships appeared as an extension of the coast on the sea and the projection of men's curiosity about the unknown.

We can consider the ship as an urban place that connects the city to the sea – a transition element between land and sea. Similarly, architectural and urban forms can be related to ships because both are generated by a common creative process that is concerned with the sea and maritime culture. The art of building and the art of navigating are not so different – they are similar and comparable (Clemente, 2011).

Seaside cities history is absolutely evocative, especially if it is considered through the perspective of the sea community (Kokot et al., 2008). Forms and spaces express and transmit the collective memory with its magic and beauty. The sea expresses a sense of freedom and complexity that we can feel in cities by the sea – the tension and expressive strength of the maritime identity.

This approach has permitted a review of the waterfront renewal processes – in ever greater numbers over the last fifty years – in a very different way. The objective is to define innovative methodologies and strategies for enhancing urban quality and maritime identity in seaside cities. In many contemporary sea cities, buildings and public spaces interact with the sea, they interpret the collective memory of the relationship between community and sea (Clemente & Giovene di Girasole, 2012). We can analyse good and bad examples to obtain methodological elements: strengths and weaknesses for urban and architectural design.

We propose to analyse transformation processes of coastal areas considering both land and sea habitats close to the coast (Rigillo, 2008). Further, we consider human work on the coast in the widest sense: docklands and harbour facilities but also seaside promenades, public spaces and buildings.

Men modify the coastal line transforming and adapting it to their needs. Seaside cities are fortresses against enemies that come from the sea and, at the same time, they are the starting point to conquer the sea (Charlier et al., 2005). Ships are part of this process because they project the city over the sea. Ships could be considered as a mediation element between land and sea.

This interpretive key generates questions and thoughts about the relationship between maritime culture and urban culture, stimulating original issues for the research agenda.

The first theme is the relationship among urban and architectural forms on the one



Fig. 7 - The cruise ship “Queen Victoria” at Riva degli Schiavoni, Venice, Italy. (picture by Gabriella Esposito)

hand, and sea and sailing on the other hand. It could sound strange from the point of view of a specialist such as an architect, urban planner, naval engineer or yacht designer. Transcending sectorial approaches it could lead to fascinating and evocative results.

We can deepen the connection between naval typologies and the urban form of port cities. We can analyse coastal transformations relating to sailing and the sea. Considering morphological transformations – both on the coast and on the sea – can help to better understand the relationship between urban culture and maritime culture.

The second theme is the common destiny of urban transformations in those cities connected by maritime routes and trade with cultural exchanges. The coastline isn't a barrier, rather it's the place where form and substance of every sea city find the synthesis – it's the deep essence that connects all sea cities. In the Mediterra-

nean Sea, European and North African cities were historically connected by trade routes and this favoured the cultural exchange that, nowadays, expresses itself in the urban form and in the architectural language. In the Northern Sea, the Hanseatic League was an extraordinary unifying factor in sea cities growth and it realised a common cultural substratum that you can still see at the present day.

The third object of our thinking is the technological progress progressively advanced and influenced by what the man made on the land, on the sea and on the sea-land edge. On the dry land, technological progress allowed the evolution of building techniques as well as infrastructures, facilities and the evolution of the city.

On the sea, technological progress had an extraordinary field of experimentation. New materials and construction techniques, new theories of physics and engineering, new propellers and new propellants were experimented. Probably, just in the XX century aeronautics overcomes shipping as the main field of technological innovation testing. Recently – on the land near the sea – technological progress has permitted extraordinary works: the Afsluitdijk dam, the Öresund_Bridge, the Channel Tunnel, the Kansai Osaka Airport, the artificial islands “The Palm” and “The World” in Dubai. All these constructions are incredible from the technological point of view even if they have had a great impact on coastal landscape with a poor attention to sustainability issues.

The fourth area of interest for suggestion and possible deepen is the relationship between the art of sailing and the art of building the city. Sailing is an art that expresses the strong and controversial relationship that human kind has with natural elements. Fear and ambition of conquest, respect and conscious undervaluation are all human prerogatives of the sea man. Over the centuries, they led sailors to discover unknown and far lands, but they often led sailors and ships towards the “perfect storm”. The

art of building cities was suggestively described by Camillo Sitte in the 19th Century although. Although he has been overcome by history, Sitte vision still today expresses the human ambition to transform the natural environment, creating places as beautiful as the natural ones. Sometimes this ambition has been mortified by ugly architecture generating unliveable cities – destroying nature and beauty, not only on the sea.

The fifth theme that I want to propose is the real understanding of the relationship between man and sea because in my opinion it can be a strong contribution to build more sustainable sea cities. The sea-man gets his strength from natural elements: he uses the strength of the sea and the wind, especially when sails move the boat but also when oars or engines move it. Navigation expresses the research of harmony by using natural resources in the best way, without energy dissipation.

Conclusion

Maritime routes connect not only sea cities but also people and cultures that belong to those cities. Over the centuries the ships had brought not just goods from one port to another across the Mediterranean sea but also cultural and semantic values.

The relationship with the sea is expressed by the form of architectures and urban spaces that are projected on the water, by ships and boats that expand the city to other sea towns, through the navigation.

Can we re-interpret maritime tradition to renew urban culture? Can urban and architectural design be inspired by maritime identity? Seaside cities are the privileged laboratory to wonder about the fate of the modern metropolis and identify innovative development models (Clemente, Demarco & Giovene di Girasole, 2013).

The development and deepening of the relationship between city and sea can be achieved through the interpretation of dialogue between architecture and boats, including forms on the water and on land. In particular we can individuate five key concepts:

- the common destiny of urban transformations in those cities connected by maritime routes and trade with cultural exchanges;
- the technological progress that has progressively influenced what men made on the land, on the sea and on the sea-land edge;
- the relationship between the art of sailing and the art of building the city;
- the real understanding of the relationship between man and sea that can be a strong contribution to build more sustainable seaside cities;
- the relationship among urban and architectural forms on the one hand, and sea and sailing on the other hand.

This approach can help us to go over the traditional renewal of waterfront we had in the last half century. We have to surpass the mono-discipline approach, because it is unsuitable to the complexity of the interactions between architecture and boats, land and water, man and sea. The goal is to realise new planning and design perspectives from the sea, for the sea cities.

Fig. 8 - Urban water landscape in Amsterdam: the 18th-century cargo ship “Amsterdam” (replica) and the Nemo Building by Renzo Piano.



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