

Landscape transformation between Port and City

An integrated design approach

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Abstract: For centuries, the coastal cities evolved with their port weaving expansions and transformations of urban space with those of the productive space and producing identity and recognisability. Since the mid-twentieth century, however, the evolution of international maritime trade led to a jump of spatial and functional scale of the ports that altered the balance and the relationship between urban and port landscape. Today more than ever the implementation of the commercial and cruise ports of historic port cities, especially in highly stratified urban areas such as the Mediterranean, must be able to harmonize the functional needs of the contemporary port systems with those of active protection of the landscape heritage without contradictions and erasures.

“Acknowledging that the landscape is an important part of the quality of life for people everywhere: in urban areas and in the countryside, in degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as everyday areas” [1].

To this revolution, the ELC adds a second one, giving the landscape an economic value. Therefore, the Port becomes “Landscape” to all effects and, from the moment it is a quality bearer, it assumes an economic value equal to its productive one. This does not limit transformations, but provides an opportunity to retrain and enhance territories with large ports. Today many ports, especially in Europe, pay attention to the issue of integration with the consolidated city. Starting from the combination of a quantitative and a qualitative approach to the theme of sustainable integration between Port and City, this short essay aims to provide operational tools to create a common language and establish design criteria to enhance landscape quality.

Keywords: Landscape quality assessment, Visual landscape analysis, Design, Urban heritage, Mediterranean ports.

Material culture

The evolution of the relationship between city and port. Yesterday, today and tomorrow

Ports and Mediterranean cities of the past were all in one both functionally and in landscape. The commercial trade of the port was functional to the development of the city. Conversely the inland products and goods were the lifeblood of the ports.

This socio-economic symbiosis was reflected in the same shape of the city-port. Therefore the port landscape.

In the past, urban and port buildings had comparable size. Even the spaces between

the buildings were similar. The stocks of goods took place within city buildings as well as in docks on the waterfront. To the stratigraphic complexity of its architectural, artistic and cultural heritage and its dense communications network, the Mediterranean city in the twentieth century adds a strong conflict. The one between a city in which the sea is the dominant hierarchy in the cognitive perception of the citizens and a city in which the economic role and the strong demand for transformation (both of the interior space both of the coastal area) to maintain competition; completely overturn this hierarchy, often denying the relationship with the water. From the middle of the '900

with the advent of the Global Shipping Trade, the bond begins to break down.

The ports started becoming more industrial and logistical. The “Emporium Port” switch to “Hub Port”. With this change the needs of space changed as well (Fonti, 2010; Gras, 2013). Many cities dotting the shores of the Mediterranean have witnessed in recent years a large increase in their ancient harbour structures, so as not to know today if consider them a resource or in some ways a threat.

The modern commercial port is increasingly becoming more a productive structure cut off from the urban context and voracious, mainly because this one increases day by day the extent of traffics and the speed of its flow eroding new spaces for tree principal reasons: logistical, manoeuvring of ships and cargo handling. Its facilities and structures have become progressively off-scale compared to the city. Also for safety reasons, the common areas and access doors are minimized (Gras, 2013). The areas

in close contact with it in fact are experienced as conflict areas whose deep incisions, visible on the cards, are translated live in walls, large infrastructures and barriers of all kinds. In fact, new competitive international ports are located far from the cities so that they can expand freely. These only retain a functional context, not related to history, identity, or space.

All this in the Mediterranean area is more difficult. The main causes are the coastal settlement density and the difficulty in developing new infrastructure in densely built areas (Gras, 2013).

The link between the port and the city, which had been the base of success for many places for centuries, become in global competition a restriction to development. Many northern European ports are still able to expand the ports along the river mouths where they stand. This is the case of Rotterdam, Liverpool and Hamburg. This, along with their Atlantic location allow them to be competitive globally. In contrast,

Fig.1 - Historical Photo of the early twentieth century of Marseille. The port is still an Emporio and has a close relationship with the City



Mediterranean ports were connected to “hometowns” occupying neighbouring land since the war. This territorial expansion phenomenon, directly related to the economic and business growth of the Port Hub, has caused quite a few frictions between cities over time. Considering the set of governments and civil-society and Ports -intended not only as Port Authority but also as the joint of private enterprises such as transportation intermediaries (shippers), shipping companies, forwarders, terminal operators etc ... - it led to compromises by which the city on the whole of its shape and image, has always been crushed. In a context in which the territorial transformations become ever more important and fast (therefore compromising the ancient equilibrium of European coastal landscapes and not only) and the genius loci of the globalized economy replaced disastrously that of individual places, matures at European level the firm and unanimous belief that it is necessary to put a stop to these dynamics.

Only in 2000, with the signature in Florence of the European Landscape Convention, it completely recasts the concept of landscape on a new basis.

European Landscape Convention. The landscape: from “postcard” to development opportunity

The first important contribution is the explicit recognition of the importance of the landscape for the quality of life of European citizens. Already in the preamble it recognizes that “the landscape is an important part of the quality of life for all the peoples of the world,” which, “has an important role in the general interest, in the cultural, ecological, environmental and social aspects”, and that “it is a key element of individual and social well-being”. For the first time is exceeded the aesthetic or heritage dimension of the landscape to get to interpret it as a key element in the quality of life and even better as a right of citizens, as well as the right to

Fig.2 - View of the port of Rotterdam where the structures and productive activities of the port prove to be incompatible with the city



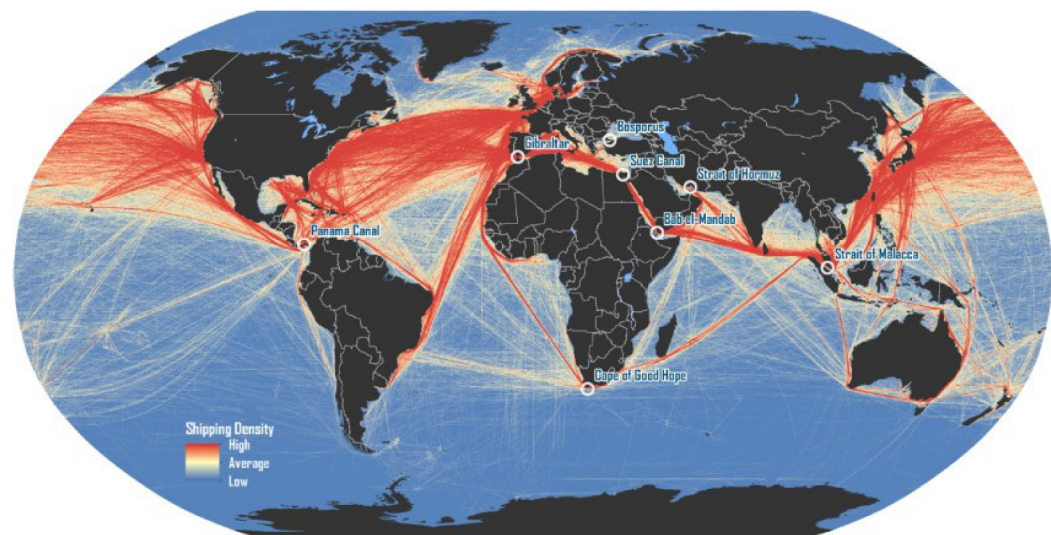


Fig.3 - The change of scale of traffics in the global economy. Italy must be taken to build new hubs on the basis of world trade

breathe clean air. Also it ceases to be an “indeterminate concept” and become “a matter of right” by the fact of being included in an international agreement that obliges states to its normative translation and the fact of integrating the landscape into local and regional planning tools, preferentially those of territorial and urban ordering. Another basic idea is to break with the traditional equation landscape = exceptional land portion. It is one of the great innovations of this document, clear in the preamble where it is stated that “the landscape is everywhere an important element of the quality of life for people everywhere: in urban areas and in the countryside, in degraded areas as in those of high quality, in areas considered exceptional, as in those of daily life;” Article 2 goes back to this concept when it states that “this Convention applies to the entire territory of the Parties and covers natural, rural, urban and peri-urban areas. It includes land, inland water and marine areas. It concerns landscapes that might be considered outstanding as well as everyday or degraded landscapes.” Therefore, it applies also to port landscapes, urban fringes to those

areas of conflict that we talked about earlier. The European Landscape Convention starts from an actual photograph of the geographical realities of contemporary Europe: the majority of Europeans live in urban centres and in cities, whether big or small, and the quality of these landscapes, often low (especially that of peri-urban landscapes), directly affects their lives. The thus heightened tensions between the great new harbor enterprises and the community combined with growing interest and awareness of citizenship of their right to enjoy a healthy and quality landscape (as well as an environment), has seen the emergence of various associations on both fronts: on the one hand those of citizens in defense of the territory and the environment, on the other those of the ports and port authorities who are beginning to understand the importance of a mediation with civil society. In the wake of these major changes arise international associations such as the AIVP (Le Réseau Mondial des Villes Portuaires, based not surprisingly in La Havre- The Worldwide Network of Port Cities) to promote the growth of the ports with an eye to the city

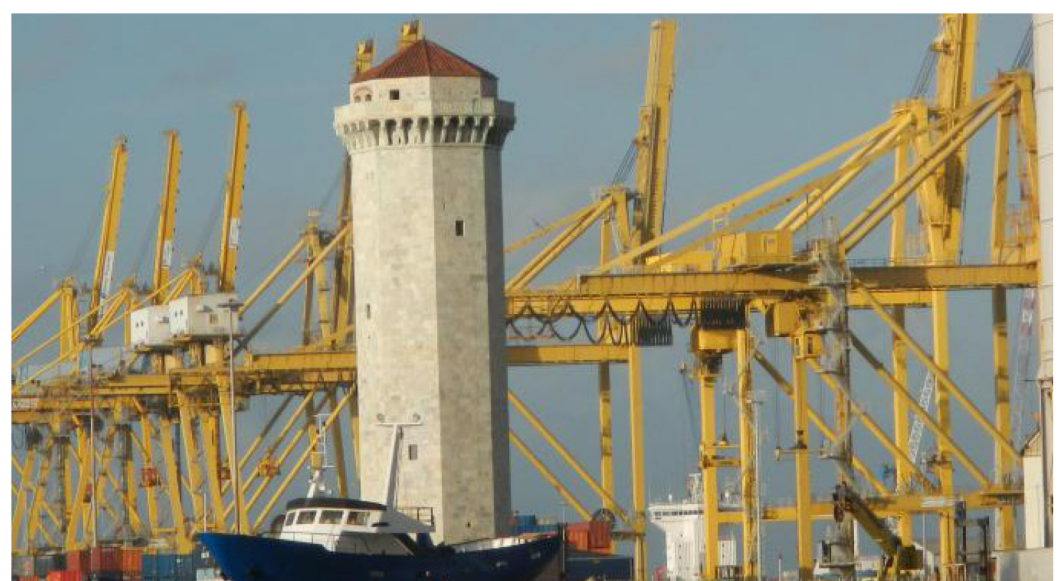
and the territory, issue also felt at the local level, where the individual AP They begin to equip themselves with offices for relations with the territory and to be open to the public with different initiatives.

The context of the planning and the missed challenges in the Italian port cities.

In the last 20 years so the attention to the design of the city-port has increased internationally, is a case in the design guide “Plan the City with the port” of AIVP in fact, that gives some examples along with general guidelines the approach to the topic. Redesign the port city is certainly more complex than designing the mere port, but the benefits in socioeconomic term and for the image of the city and the hinterland can be much larger. Barcelona, Valencia, Genova, Marseille are port cities models, each to a different extent, who converted the ancient harbour waterfront into a public place of excellence charming and characteristic, however, shifting the operational part in new areas. In fact, no measures integrate the two realities in the period of productive activity of ports, determining fact especially for

the many cases in which the port remains and grows on its former seat continuing to incorporate even any listed buildings. In the latter case, even more so, the transformation operations should take account of this presence. Therefore, a general design quality for the port and for the city is not enough; it is also necessary to protect the city parts and the historic buildings that blend with the port in transformation. The Mediterranean-and Italy in particular- hosts the most problematic cases due to the high stratification of the coastal fabric, in which the contemporary port facilities blend into an urban matrix rich in historical architectural emergencies. This is the first reason why the development of its ports did not occur with the speed and effectiveness of other European states. The Italian ports are all born with the city when it was not the same cities to grow and prosper thanks to their ports (just think about the Maritime Republics, for instance). The revolution introduced by the intermodal system, adopted throughout the world, has made it increasingly inadequate structures and spaces, which for centuries had made the fortune of the city-Italian port. The separation between the port and the city

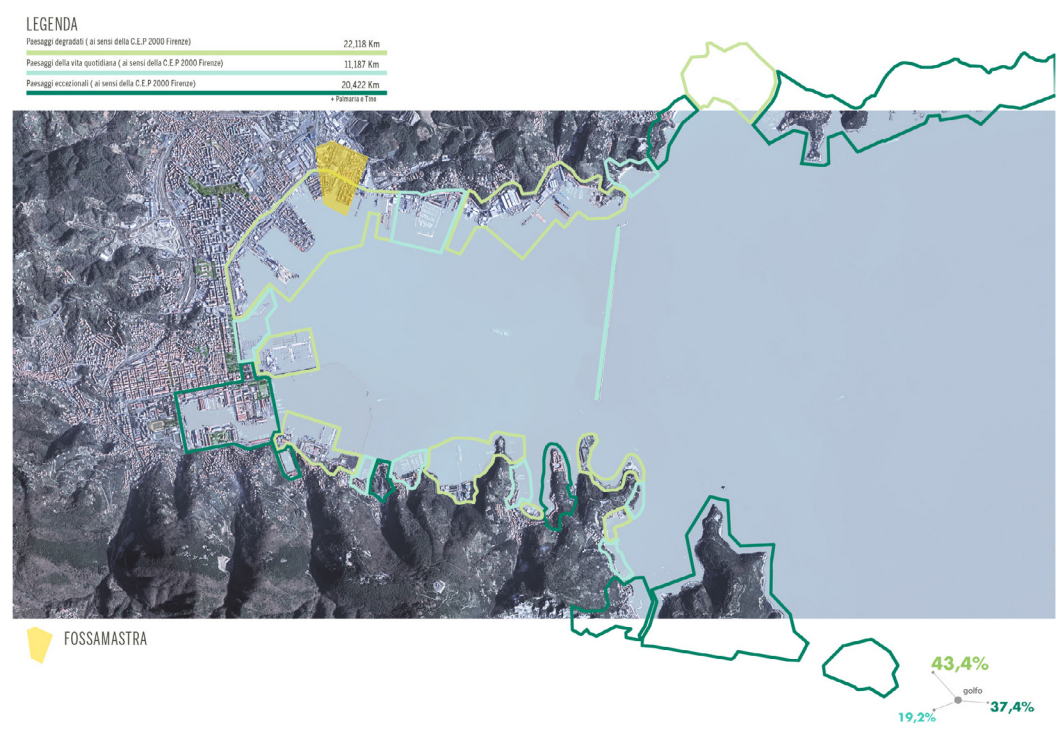
Fig.4 - Current view of the port of Livorno. We note how the structures of the “Port Hub” break the relationship with the historical elements and also no longer have a relationship with the city



has been an ongoing process, especially since the war. Even if they were adjacent at spatial and geographical level, ports and cities in Italy have gradually detached on other levels. The main ones are definitely those of governance and planning. The first, especially articulated, involves the Ministry of Infrastructure, the regions and the City, with all the red tape that results. The excessive complexity of the processes of governance, among other reasons, in fact, did not allow the Italian ports of turning quickly and therefore to be competitive. Because of the slowness in preparing the Port Plans in many cases, the facilities, once approved, were already obsolete by the dynamic needs of international yachting. Therefore, they proceeded with the plan variants that had the fatal contraindication to also undermine the coherence of the overall design. This modus operandi has meant that the majority of Italian ports have adequate port facilities using adjacent free spaces,

regardless of the overall picture, with the sole aim of satisfying the present need. To make them functional and globally competitive the water and land areas of ports should be redesigned in full preserving the operation and this seems impossible. So we tend to think that the solution to incommunicability between these portions of the city is only possible when the productive function ceases or is moved. This implicit is rooted in modern urban planning theory, which interpreted and administered the territory through the Zoning and mono functional specialization. The turnaround promoted by this approach that in the European Landscape Convention finds valid theoretical references, is based on the concept of a fruitful and peaceful coexistence between the two systems, finding new methods of integration expressed through new formal languages appropriate to the context and to contemporary needs. The Italian ports are now “embedded inside the compact tissue”.

Fig.5 - Recovering a relationship between port and city. The case Study Of the Port of La Spezia. In green degraded landscapes, in gray landscapes of everyday life and in dark green exceptional landscapes



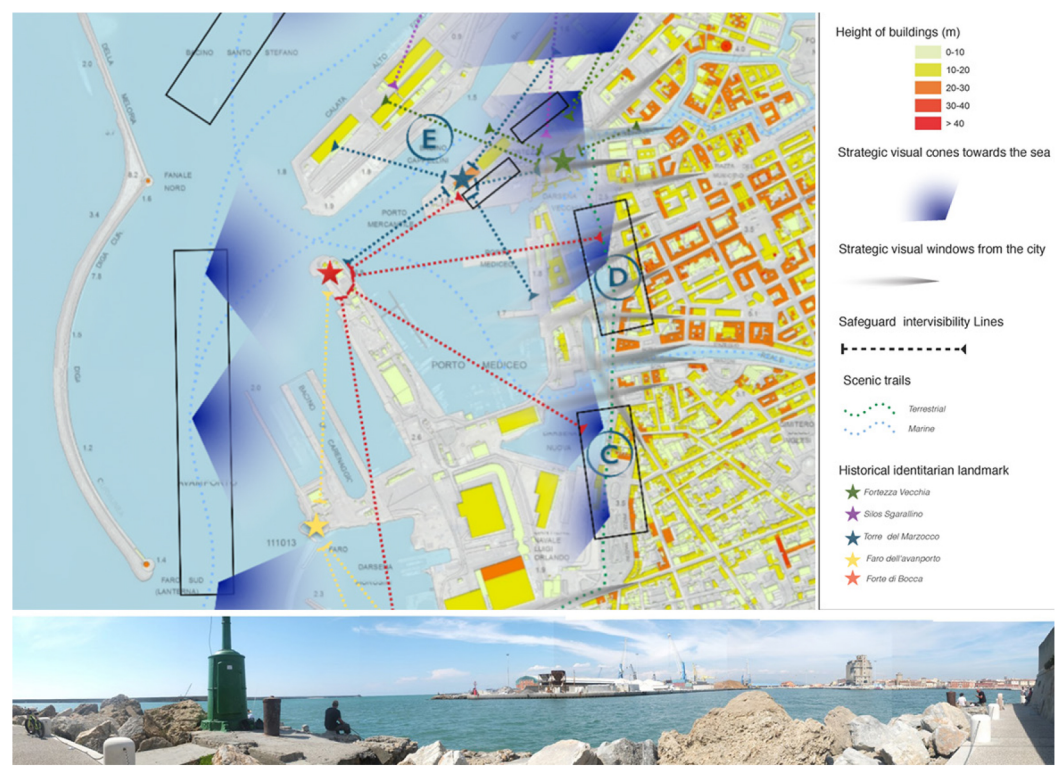


Fig.6 - Livorno. Map Of view management framework

The way in which they try to meet the pressing demands of the globalized economy, has exhausted its possibilities of success and indeed, it is today not compatible with the other requirements presents on the territory, which equally contribute to the creation of the variety, beauty and the uniqueness of Mediterranean cityscapes. The current structural order of these urban landscapes must be completely revolutionized as well as we must revolutionize the analytical and design approach. According to the rules of the global market, the new transformations of Italian port areas should operate radical changes with fast lead times to bridge the gap with other European and world ports. The risk is that the little time and few resources do not allow taking into account the landscape characteristics of the Italian port cities.

The two integrated approaches: quantitative and qualitative. Some useful tools Consider the problem of the future of the

Ports and the “form of their local presence” is important today because it is a vibrant and dynamic economic sector, on which converge many interests and investments and that is acquiring in fact increasing territorial weight. Nowadays no strategies allow modulating the shape of these productive landscapes and adjusting their functioning according to geographical contexts in which they occur. The projects of port expansions, even today, are based only on the logic of the profit maximization which do not take into account the geography and heritage of the places in which they occur, instead of applying standard employment patterns of territory borrowed from northern Europe or Asia that have nothing to do with the identity of the Mediterranean landscape. It is to date a field unexplored by the landscape design that gives rise to reflections and multiple experiments but especially that opens the door to new types and categories of jobs, and create new skills, opportunities for

innovative multi-disciplinary team in which the landscape is flanked by 'economy of the sea and transport. In short new frontiers and prospects for future career, not for "relievers" but for designers. The integrated approach proposed here has the main objective to make all the changes that Mediterranean ports must necessarily deal to implement their structures and revitalize the role they seek, with the port landscape understood as a systemic unit of environmental, territorial, urban, cultural and historical heritage, through two complementary methods. The first can be considered as a quantitative method aimed to address the two major problems of the Italian context:

1. The need for a simple and flexible tool that overcomes the rigidity of governance and Italian port planning.
2. The need for quantitative analysis tools that allow the calculation of visual impact of the changes and enable the assessment within environmental and economic matrices.

The answer to these two problems as apply to Italian experience is incomplete. In Italy, there are experiences of quantitative visual analysis but only on a regional level. In particular, we recall the Landscape Plan of the Piedmont Region, and the experiments regarding Turin, and intervisibility maps of the Regional Landscape Plan of Tuscany. Unfortunately, in both cases, the scale is larger than that of the Port therefore only useful for the definition of visual basins and definition of panoramic views.

This has necessitated widening our research to foreign cases and applications; in particular Anglo-Saxon and Dutch. In these, we find cases of application, very useful methodologies and tools to address the problems revealed. The task of this research is to test them and adapt them to the Italian context.

The View Management research helps in response to the first problem. Anglo-Saxon projects used in both Liverpool and London. It is very useful in planning. It consists of

a supplementary document that supports the development plan. Being distinct from the main plan configured as a flexible tool that can be implemented during the transformation process.

As we noticed, governance and planning of the Italian port authority are very rigid. The View Management methodology allows us to solve this problem. This methodology provides a reference framework for the visual design analyses and for the evaluation of the transformations.

For each of the visual categories identified on the map, we are looking for the best representation and IT tool.

The most distinctly qualitative methodology that makes up this integrated approach is the use of a consultation tool introduced in 2000 by the European Landscape Convention and specifically designed for spatial planning: the objective of landscape quality (LQO's). The art.1c of the above-mentioned Convention, define it as a tool that *"means, for a specific landscape, the formulation by the competent public authorities of the aspirations of the public with regard to the landscape features of their surroundings"*. It stands as an element of territorial analysis synthesis conducted by specialized knowledge by integrating all the heterogeneous complex of bottom-up data, essential to understand the dynamic nature of the sites and their Zeitgeist. The European Landscape Convention places great emphasis on the issue of landscape quality objectives, understood as the expression of landscape preferences of the society, once known the state, values and risks of its landscapes. They guarantee citizen participation and act as a meeting point between the experts, the administration and the civil society, thus becoming a way of consensus of the landscape policy and the related priorities. The innovation of this approach, compared to the intentions of the ELC, is to use the landscape quality objectives not only as active instruments for the analysis, interpretation and landscape design (as an

input) but also as innovative tools to monitor the quality of the transformations taking place in the landscape and the relative level of citizen satisfaction.

“Landscape quality Objectives as vectors of transformation” summarizes the intention and the potential of this innovative methodological approach, which gives the project a dimension of process rather than intervention, a systemic dimension rather than punctual. This methodology overturns the canonical way in which we try to impart or restore landscape quality and its own definition, breaking up the logic based on “landscape quality indicators” and undermining the dominance of the disciplinary fields of ecology and technical sciences in the field of “landscape quality assessment” in favour of a fair weight of sociological and anthropological disciplines. For their own definition and by the intrinsic reference to the process dimension that also etymologically, the landscape quality objectives are suitable to be the only true landscape “indicators” to refer to, because they provide the flexibility adaptability requirements necessary to understand the complexity of the landscape. The method, applied to the case of port landscapes, thus becomes of particular interest since it allows overcoming obstacles caused by the different jurisdiction they are subject to the port areas than the rest of the city without the need to create an additional higher-level planning tool. Even from a legal and institutional perspective, they are thus powerful and flexible synthesis tools, ie capable of establishing bijective relationships between

different subjects favouring the evolution of the needs of the parties involved.

The first step is the agreement between the competent Port Authority and the city administration, safe in the knowledge that an accurate definition of the quality objectives landscaping for each frame of reference (or landscape units) considered, would ensure appropriate and shared design choices, thus streamlining the approval process of projects and ensuring positive economic impact on the area. The precise definition of landscape quality objectives is a process that requires a high degree of coordination and cross-disciplinary skills because, as anticipated by the definition given by the Convention, combine specialist and popular knowledge, technical requirements based on measurement and analysis with aspirations, visions and desires of the population. A full-bodied participatory process involving all the major actors and stakeholders presents on the territory in relation to the scope and subject matter therefore complements the work of scientific analysis. An emblematic example, as well as a pioneer in this field, consists of the Landscape Observatory of Catalonia that over the 11 years of its activity through the creation of 7 Landscape Catalogs of Catalonia, has defined the landscape quality objectives for the whole catalan territory Catalan, using public participation processes [2] among the most articulate and fruitful in the international scene. Since this best practice dictates the manner, in which the landscape quality objectives should be defined: with reference to LQO’s framework valid in general for the Mediterranean port city (whose definition is

Fig.7 - Fossamastra A walled Neighbourhood, looking for a waterfront. First step: Analysis and transdisciplinary studies as bases for the LQOs definition



one of the research thesis results: “Designing in Emerging Landscapes. Changing image and identity of Mediterranean Global Port Cities (L. Marinaro, still in progress) and then switching to a precise formulation of objectives for specific case studies, in which the proposals made by the team of experts in charge of drafting the objectives are compared, refuted or supplemented by the contribution of citizens and stakeholders in the public participation process. The examination of results of the process precedes a final formulation of the objectives that will make up the shared framework for territorial policies of the city and port in the mutual interests. The list of the LQO’s is essential to proceed with the definitions of actions and specific measures to satisfy them. The actions and measures can be multiple and related to different areas. They can relate to physical territorial transformations or promote cultural initiatives; they can be isolated interventions or interventions programs, provided they

are consistent and especially viable in the agreement envisaged transformation times that coincide with the times of the LQO’s and stood roughly on the five-year period, a period compatible with the mandate of an administration. Therefore, they represent a “collective program” that prefigure scenarios of wellbeing and satisfaction in short time, thus giving full effect to the principles of the E.L.C. Their formulation return a snapshot of the current quality of the landscape as not only perceived by people, but also is also able to anticipate future possibilities for sustainable processes, to direct them and at the same time to be monitoring tool.

Notes

[1] European Landscape Convention, Florence, 20/10/2000, Preamble

[2] See the book: Noguè J., Puigbert L., Bretcha G., Sala P., (2010) Paisatge i participació ciutadana. Observatori del Paisatge de Catalunya, Documents. Olot

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