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## Waterfronts between Sicily and Malta: an integrated and creative planning approach

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In current global crisis, with the world's GDPs dropping, the strong flows of financial, social and relational capitals that powered urban regeneration over the last fifteen years are no longer available to be tapped in an indiscriminate manner. Revitalising waterfront is no longer easy opportunity for long-term investments or for using the financial capital gains of hedge funds or sovereign funds, but a more creative port city has to provide precious opportunities for real development that is able to produce effects in both the domain of quality of public spaces and that of economic development. In this scenario acts an international cooperation project between Italy and Malta about waterfront development, promoted by the University of Palermo and the University of Malta as scientific responsibility, and by the Municipality of Palermo, and the Provinces of Palermo and Trapani as institutional actors. The project aims to explore the field of "waterfront" in a different sense from the simple concept of urban or peri-urban coastal areas.

### Keywords

**Creative waterfront; Urban regeneration; Malta; Sicily**

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## **WATERFRONT Project: field investigation and phases**

In current global crisis, with the world's GDPs dropping, the strong flows of financial, social and relational capitals that powered urban regeneration over the last fifteen years are no longer available to be tapped in an indiscriminate manner as was the case until just a few years ago. The most dynamic cities in the future will no longer be those that are able to attract urban projects and investors driven by the real estate market or waterfront development, but the cities that have extensive cultural and identifying resources and that are able to use them as the basis for creating new urban culture and value. Revitalising waterfront is no longer easy opportunity for long-term investments or for using the financial capital gains of corporation, hedge funds or sovereign funds, but a more creative port city has to provide precious opportunities for real development – not only quantitative but more and more qualitative – that is able to produce effects in both the domain of collective assets and that of private capitals.

In this evolutive – or involutional – scenario acts an international cooperation project between Italy and Malta called “WATERFRONT”, as acronym of *Water And Territorial policiEs for integRation oF multisectoRal development*. The Project is promoted by the University of Palermo and the University of Malta as scientific responsibility, and by the Municipality of Palermo, and the Provinces of Palermo and Trapani as institutional actors<sup>1</sup>. The Project aims to explore the field of waterfront regeneration in a different sense from the simple concept of urban or peri-urban coastal areas.

The waterfront, by our approach, takes a wider identity that refers to the complex relationship between "sea-port and town" and includes physical and environmental components of human settlement, urban fabric, infrastructure, productive and recreational activities that are concentrated along the urban and peri-urban coast.

Waterfronts are sensitive interfaces between land and sea, creative interfaces between urban and environmental components, social interfaces between nodes and networks. They not only coincide with the areas of infrastructure that are gathering on the coast, not only with the water line or the environmental components of the coastal territories. They are hired by the project as complex interaction of crossing flows, stratified identity of urban communities: fundamental element of the environmental system, synthesis of landscape, space and community, a place of solidification of the identity of the social, cultural and economic community (Carta, 2009).

The management of urban face of waterfront presents some problems articulated in relation to both new environmental and ecological concerns and the complex dimension of the multiplicity of rules and institutions charged with protecting, planning and managing processes.

For the intervention on the waterfront the Project needs to define general strategies that are able to intercept the links between port and urban economies, between the local and the global strategies of the territorial system, between public spaces and touristic fluxes.

From these considerations, the Project follows a point of view which presupposes the overcoming of the logic of sectoral policies and the integration of infrastructure,

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<sup>1</sup> The Project is lead by the Province of Trapani (D. Aureli, resp., A. Mistretta, R. Ricevuto) and composed by University of Palermo (M. Carta, resp., B. V. Liguori, B. Lino, D. Ronsivalle, F. Giambra), University of Malta (N. Theuma, resp.), Province of Palermo (F. Speciale, resp., M. Mirto., S. Provenzano), Municipality of Palermo (P. Milisenda, resp., E. Conigliaro, S. Marinaro).

environment and landscape conservation sectors with urban policy and planning tools, emphasising this assumption behind the selection of element that will compose the "Waterfront Atlas", as one of the main results. The Project consists into four main phases as described below:

1. The phase of **knowledge** includes the survey on the articulation in identity contexts and the localisation of assessment of key coastal heritage and cultural services present in the waterfront areas of the case studies in Sicily and Malta (cognitive framework of the uses, heritage and resources as **endogenous components**).
2. The second phase interprets the **analysis of needs and expectations** of local communities and authorities for the development of waterfront areas, verifying the compatibility of expectations identified with the political and economic choices in the area (stakeholders, transformations, risks and compatible choices as **exogenous components**).
3. The **diagnosis** phase, fueled by a projectual tension, evaluates potential for recycling disused resources and identifies strategies to improve, actions to implement and guidelines to follow in relation to the pilot areas (scenarios, strategies and protocols as **projects**).
4. The phase of the **dissemination**, in which aspects of sharing knowledge and citizens participation are aimed to reclaiming identity of waterfront more landscape-oriented and urban public spaces characterised by the presence of the sea (**participation**).

Every step finds an operative application through the Work Packages articulation during two years of research and development.

## State of the art and scientific background

The methodology of the Project was been defined by University of Palermo (Department of Architecture) and assumes some theoretical and practical experiences as a starting point and foundation for the construction of a operational methodology for applied analysis and integrated planning. The elements identified as starting points are:

1. the theoretical and methodological elaborations developed on the theme of urban waterfront regeneration in particular oriented to issues of assessing the conditions of risk and developing strategies for intervention defined "Fluid City Manifesto" (Carta, 2007);
2. the approach to planning of the coastal areas through the methodology defined "Integrated Coastal Zones Management" (ICZM) and its applications (European Commission, 1999);
3. the "The Bathing Area Registration & Evaluation System" (BARE) methodology for the evaluation of the areas dedicated to the bathing and for their classification (Williams and Micallef, 2009).

These elements contribute to the definition of fields of investigation, analysis and parameters useful to define an Atlas extracting information from each methodological framework for understanding, interpreting and planning the waterfronts as one of the main challenge of the "ecological urbanism" (Mostafavi and Doherty, 2010).

The Fluid City methodology, derived from applications on the issues of urban waterfront regeneration, focuses its attention on urban systems and the ability of port systems to interact with the city producing fruitful relationships in which the "city" and the "harbour" can produce urban places, mitigating barrier effect that runs along the port areas and often insurmountable barriers marks. So the methodology for the regeneration of urban waterfronts could be defined "city-port oriented" because it covers the cases of integration between urban waterfronts and ports, but can not, by itself, referring to situations of non-port.

The ICZM methodology supports the fundamental choices of integrated plan with the aim of reducing the negative effects on the sea, which is the natural integrator of the footprint of the coastal uses. However, ICZM approach, that might be called "waterside oriented", is not adequate to the definition of urban and territorial systems and their knowledge, interpretation and planning.

Finally, the BARE methodology is a method of reading and a multi-criteria evaluation of coastal systems aimed at identifying areas for swimming and their hierarchy by virtue of the intrinsic quality of bathing water, beach accessories and services but responds to the presence of quality sites or spaces occupied by other urban functions, port or non-production related to bathing. We can synthetically defined as an "seaside oriented".

In the Project the integration of the three methods, therefore, involves the selection of fields of analysis more useful for building an integrated framework from which extract the data and structure analysis and interpretation. This integrated approach to waterfront could be defined "eco-creative oriented".

### *The identifying categories and the seven principles for the regeneration of creative waterfronts*

Waterfronts have what might be called a "plural identity", a polysemy identifiable by seven categories, namely through seven multiple points of view that give us an overall waterfront (Carta, 2010). This leads on to a plural identity of fluid city which can be defined through seven criteria, multiple viewpoints which provide us with an overall image characterised by seven types of ambiguities that characterised waterfronts:

1. **Structure:** a fluid city is not comparable to a line, but should be envisaged as a network of places, functions, junctions and seams between the coast and the city, between the port and urban activities.
2. **Uses:** a fluid city is not merely a harbour area, but rather a concentration of functions, productive, relational, cultural, leisure-related and residential.
3. **Permeability:** a fluid city it is not a protected area of restricted access, but an osmotic point of interface, a permeable boundary, rigid in some parts but sponge-like in others.
4. **Mobility:** a fluid city is not a local hub, but rather a crossroads between bands of infrastructure (of land and sea) which cut through it and feed into it: the hub of an increasingly planetary network of relational energies.
5. **Settlement:** and yet it is more than just a hub; most importantly it is a place, an intersection of customs, functions and flows: the synthesis of space and community.
6. **Production:** the fluid city is not a place of recreation; it is not merely an "entertainment machine" but also a site of production and trade: a finely-tuned functional machine.
7. **Projects:** and lastly, the fluid city is neither purely history nor purely future, but a fertile synthesis of history and future prospects: a place where an aptly applied knowledge of history feeds into visions for the future, where implemented strategies produce an effective interpretation of the past.

Today, a new paradigm of knowledge/action about urban waterfronts should guide us. We have to define the "third generation" of waterfront planning, after the first leisure-based generation (i.e. Baltimore) and after the second one based on cultural and services investments (i.e. Barcelona). The "Waterfront 3.0" have to be *creativity driven*, able to produce a whole regeneration force for the city competitiveness and quality. From the reflections about creative cities (Carta, 2007) we could extract some guidelines for the third generation of urban waterfronts development. These guidelines are structured around seven principles that decline the creative action for urban innovation based on the relation with the seven criteria above defined. The proposed principles define a Fluid City

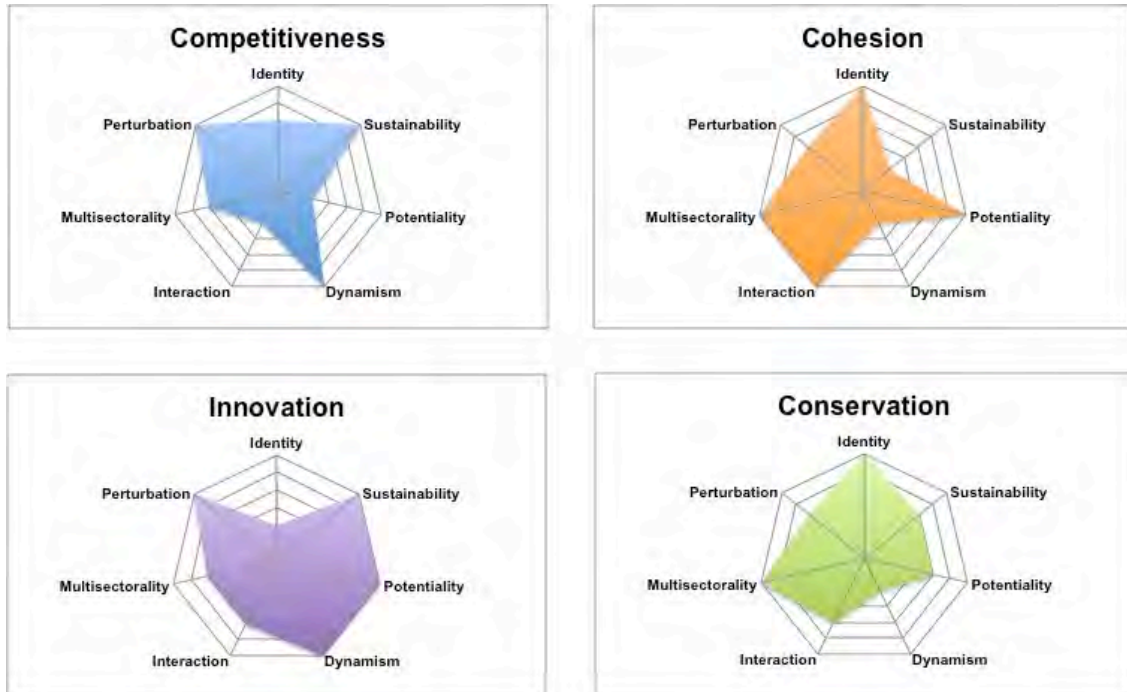
Manifesto, that acts as guidelines for the decision and guide the action planning on "urban waterfronts 3.0":

**The identity principle**, typically displaying deep cultural stratification of identity resources of the waterfronts coupled with the willingness and ability of institutions and technicians to optimise such resources, in addition to a population which is aware of the importance of interaction and its active role in the transformation process. These elements are most frequently encountered in historic waterfronts, places where a sense of belonging is rooted in both space and time, along with an increased awareness of cultural values.

- **The economic sustainability principle**, which calls for a pre-existing, solid economic base – either internal or to be set up in financial partnerships – to activate and maintain waterfront regeneration within a context of policies and regulations aimed at facilitating their completion. This is the situation, for example, in those areas subjected to negotiated town planning, special programmes such as the French “*projets de quartier*” or those where policies of *business improvement districts* are in place for setting up some incentive to encourage new business into the area.
- **The potentiality principle** appraises coastal area experiencing an imbalance between the top-level potential envisaged or recognised by analysts, planners, artists and entrepreneurs and sets this against its current circumstances and decision-making trends. This imbalance acts as a sort of transformer, converting “potential” energy into the “kinetic” one needed for regeneration. Just think of the extraordinary reserves of both quality and opportunity for transformation possessed by port districts with large tracts of brownfield sites and factories, just waiting to be transformed into incubators of activity or to provide the necessary space for large-scale service facilities.
- **The dynamism principle** hands back the know-how, competence and tools needed to set creative process in motion and produce future transformation in the fields of culture, science and technology. Think of the enormous contribution made by cultural associations or micro-enterprises which forge the very nerve centre of the new socio-economic framework of town planning: one of the reasons that urban projects have been so successful in many European cities. Another great, dynamic resource is the presence of communities of artists, creative and talents taking up residence in port disused areas; redefining functions, opening galleries, setting up theatre programmes and organising cultural, educational and leisure activities.
- **The interaction principle** allows us to test out opportunities for informal, spontaneous forms of communication as well as checking for the presence of suitable environments for diversity and variety, as is the case of waterfront linked with historic centres, home to a range of diverse ethnic groups, or neighbourhoods close to large ports, traditionally areas which excel in the ways of trade, transfer and the most lively sort of multicultural community.
- **The multisectorality principle** highlights the importance of a multifaceted, non-homogenous environment, comprising a combination of living accommodation, manufacturing and commercial businesses, high quality cultural activities and folklore. A dynamic, synergetic environment capable of bridging the development of both technique and art, production and housing, businesses and leisure.
- And lastly, **the perturbation principle** provides us with a tool to recognise the creative *milieu*, an indication of the latent energy required to produce a disturbance within that context and the resultant imbalance between the current situation and a vision for the future, through positive tension *experienced* by the population in residence, moving it to be proactive and overcome the marginal role the area has been assigned. This sort of latent energy is often found in declined waterfront areas where marginalization has produced a certain social unity and widespread discontent generates positive tension, ripe to be guided in the right direction.

The seven principles described above contribute to the achievement of the key development factors: **competitiveness**, **cohesion**, **innovation** and **conservation**. The following figure shows how and how much each principles contributes to the achievement of the urban development.

Figure 1. The contribute of the waterfront 3.0 principles to the main urban development objectives



The waterfront analysis proposed in some studies conducted by the group of the University of Palermo have identified three “Port variants”, two of which are strictly urban:

1. the “**fluid port**” associated with sailing, cultural and leisure facilities and accommodation. The fluid port is immersed and intertwined with the urban structure, characterised by marinas and cultural and leisure services, and strictly connected to the city. The functions provided for this section relate to the boating, recreational and cultural activities capable of being an integrated interface between city and port;
2. second variant is the “**porous port**”, namely an area for cruise-ships and passengers, enjoying close ties with the city and transport system, including facilities and buildings along the wharf to encourage the opening of the urban front onto the sea. This type of port is characterised by a large porous area of transformation that acts as a link between the port activities dedicated to passengers and new cultural, residential and commercial activities related to the quality of the waterfront, which manifest a high degree of interaction between the port and city;
3. third variant foresees a “**rigid port**”, inaccessible to the public and thus enabling the harbour to work to full capacity: the “port machine” able to guarantee security and safety.

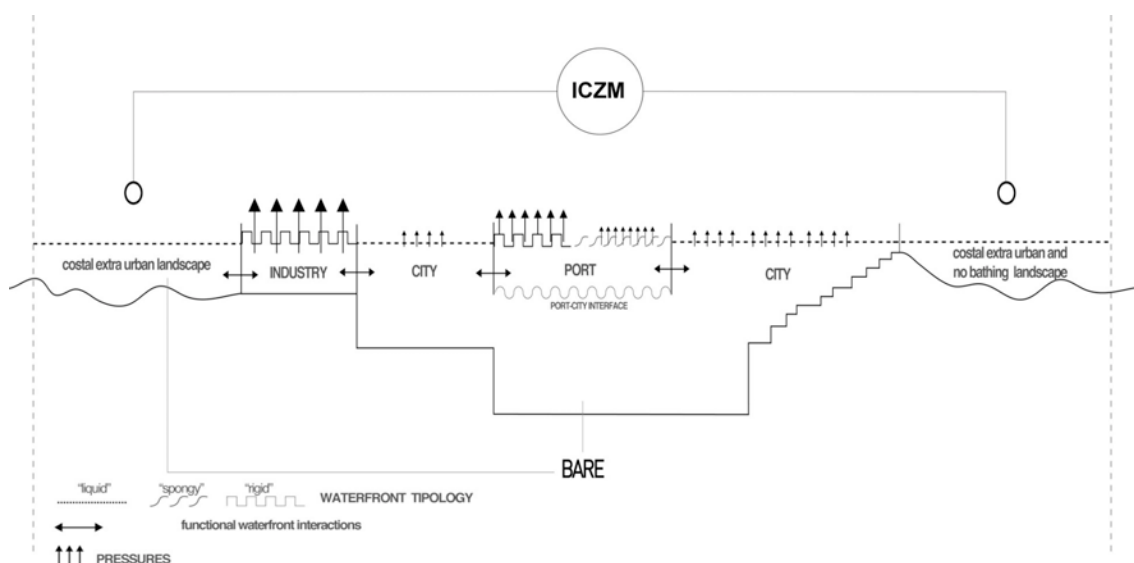
These three variants are useful to define the depth of the relations between port and city, and contribute to recognise the prevalence of urban or port uses or a dynamic mix of both. In the integration of three methods, this variants will be useful to lead the choice of specific planning or design tools.

## Integration of the methodologies and production of the “Waterfront Atlas”

Compared to the overall objectives of the project, it is believed that the ICZM methodology is an useful reference point and a solid base on which to insert some methodological and operational innovations. ICZM is a comprehensive method that can contribute to develop ways to a more democratic management of coastal areas and to create mechanisms in order to facilitate the active organisations and individuals commitment at all community levels, enabling them to interact with the institutions. The process begins with an awareness of issues of common interest that facilitates dialogue and exchanges of views among stakeholders. This promotes collaboration between parties and constitutes the basis for coordinated action which - at a distance - promotes integrated management for a shared structure. It is therefore a dynamic, continuous and iterative process to promote sustainable management of coastal areas. It seeks, in the long term and within the limits set by natural dynamics and carrying capacity of the zones, to find a balance between the benefits associated with the following activities: economic development and anthropic uses of coastal areas, protection, preservation and restoration of environment, minimising the loss of human lives and damage to property, public access and use of waterfront areas. The ICZM methodology is an useful project point of reference for three main components:

1. the **integrated approach** requires that the project integrates the coastal areas of terrestrial and marine components and it is integrated in both time and space and intrinsically multidisciplinary;
2. the **multi-actor and multilevel governance** refers to the integration of the objectives both to that of many instruments needed to achieve them. It involves the integration of all political parties, the relevant sectors and administrative levels. Although references to the ICZM concept of "managing" the process actually covers the entire cycle including: collection of information, planning, decision making, management and monitoring implementation;
3. integration of the component of **participation** uses the informed collaboration of all stakeholders in order to assess community objectives in a specified coastal area, at a particular moment and to take actions to pursue those objectives. The ICZM promotes public participation in which the values, concerns and expectations of the community involved are discussed and future directions in which they are negotiated.

Figure 2. The integration of methods for waterfront analysis ICZM and BARE (©M. Carta, 2012)



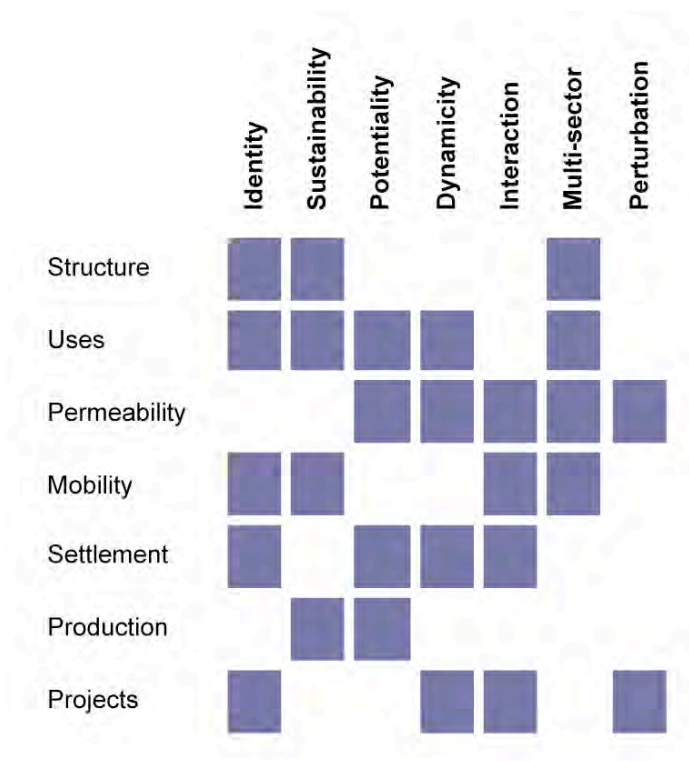


Leaded by an innovative point of view, the Project has considered useful to integrate the ICZM methodology with some protocols and parameters coming from the BARE methodology, more dedicated to the bathing areas for the enjoyment, tourism and recreation (Williams and Micallef, 2009). The BARE system of monitoring and evaluation of coastal areas differs from other systems for evaluating the patterns of the beach because it provides a large number of problems:

- evaluates **not only the beach** itself, but **throughout the bathing area** (the beach area at about 200 m. and within walking distance, still visible from the beach, with some structures beyond this distance, but clearly serving of itself);
- consider a **variety of types of beach**;
- classifies bathing areas according to a rating system that focuses on five main issues relating to the beach which were come to light to evaluate the **preferences and priorities of the bathers**;
- provides a **final classification of bathing areas** not only as an incentive to provide more publicity, but mainly as a tool to identify the basic needs of management.

The BARE process identifies five types of beaches/swimming areas: Resort, Urban, Village, Rural and Remote. These types identify five urban lifestyles in relation with the coast, but they don't explain the relation between themselves and the strong relations with the urban tissue.

Figure 3. Waterfront Atlas: relationship between waterfront criteria and principles for a creative-based planning of the urban coastal areas



The integration of three point of views on waterfront diagnosis drives the Project towards the production of an “Atlas” based on the relation between the seven categories of interpretation (*structure, uses, permeability, mobility, settlement, production and projects*) and the seven principles for action (*identity, sustainability, potentiality, dynamicity, interaction, multisector and perturbation*). So the main parameters of the Atlas have been organised in a matrix form and therefore may help in the diagnosis and project application



of the principles for regeneration. Through the interpretation of the matrix the analysis will help to define materials for a more creative-driven project.

The Atlas will not be a simple representation of the state of the waterfront of La Valletta, Palermo or Trapani, but it will produce some guidelines for decision both in design domain and in governance domain. The Atlas layer called "policies and projects" will summarise the contents of the phase of analysis on the identification of the changes underway, the identification of subjects and the identification of risk situations and compatibility between uses and choices.

The Waterfront Atlas isn't merely a tool of representation of territorial phenomena. But it would be capable, therefore, of interpreting the potential of the urban coastal areas as powerful territorial hub: a transformer capable of intercepting the material and immaterial energies travelling along large-scale networks, transposing them into the urban context and translating them into resources for the local development, thus providing vital sustenance to the whole city. The innovative, sustainable and resilient cities of the future will increasingly take the form of *Gateway Cities*, town and communities capable of connecting up with the network of city-hub within the European-Mediterranean area, the ambitious protagonists of the urban century.

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