

City's Port Qualification – city and port relationships -

1. City-Port Relationship

In the last 30 years city ports were re-shaped in their interface being the port area “invaded” by the urban activities and the access to the water. This “invasion” occupied the old and derelict areas of the port and was due to the development of cultural related activities like, marinas, art market, construction of public spaces – promenades and parks, implementation of specific production sites - clean technologies and science parks, low and high-income housing. The great technologic changes in the traffic system, safety, accessibilities and especially in the process of goods circulation allowed the port to control the entire chain in its hinterland and to promote the rediscovering of the waterfront and the connection between the city and its costal or river areas – the waterfronts.

The relationship between the city and the port is a very complex one and involves multidirectional influences in spatial, cultural, social, institutional and economic terms (Bazan-Lopes, 2002).

The urban condition and its relation with the coast is demonstrated by the urban shape, which shows the way the city relates, gets and incorporates it into its own structure; by the existent uses in the transition between the continuous urban element and the lineal aspect of the coast, with some singular elements and also by the image of the water seen from the city and the city seen from the water (Grau, 2004).

The port transformation has a strong incidence in the design of the city, depending on the kind of intervention - an intervention on its infrastructures or a complete change of uses and re-understanding of the relationships between the consolidated city and the waterfront. Known examples are Boston, for the infrastructures, and Lisbon or Rotterdam for the relationships. The perception and understanding of the city from the water leads to the creation of public spaces, physical and visual connectivities and the reinforcing of the urban axis connecting to the waterfront.

The development policy of the port cannot be dissociated from the city planning policy.

The relationship between city and port should be enforced by the implementation of a common planning mechanism such as a master plan which has to frame the coordination between urban development and port dynamics. This planning mechanism should be supported by an on-going participation of public and private institutions (from the port as well as from the city) and also by the population and users of the city and waterfront.

2. The Case-Study – Estuary and Lisbon Waterfront

Located in the centre of the main Metropolitan Area of Portugal, Tejo Estuary is a very strong and beautiful site. Since many years ago Tejo Estuary offered very good conditions for human settlements and gained a worldwide projection in the XV century as well as in 1998 with the World Exposition of 1998 – EXPO'98.



Figure 1 – Tejo Estuary Location

After several waterfront interventions and many projects to the metropolitan waterfront it can be interesting to analyze and evaluate the added value for the urban quality of Lisbon Metropolitan area.

The present paper proposes some ideas for defining parameters to evaluate the urban quality and the relations between the waterfront and the city.

We tried to evaluate the waterfront urban quality in all Tejo Estuary and five Organic Spatial Units were delimited. These Units were established based on their organic and functional characteristics as their origin, main uses and activities, urban characteristics and development perspectives.

Due to the dimension of the area to analyse and evaluate and the short time available, the case study was reduced to the Lisbon waterfront. For the Lisbon waterfront five Organic Units were proposed and defined with the same criteria established for the “Analyse Units” in a study of the Municipality “Planeamento – Habitação e Mercado Imobiliário na Área Metropolitana de Lisboa”, 2004.

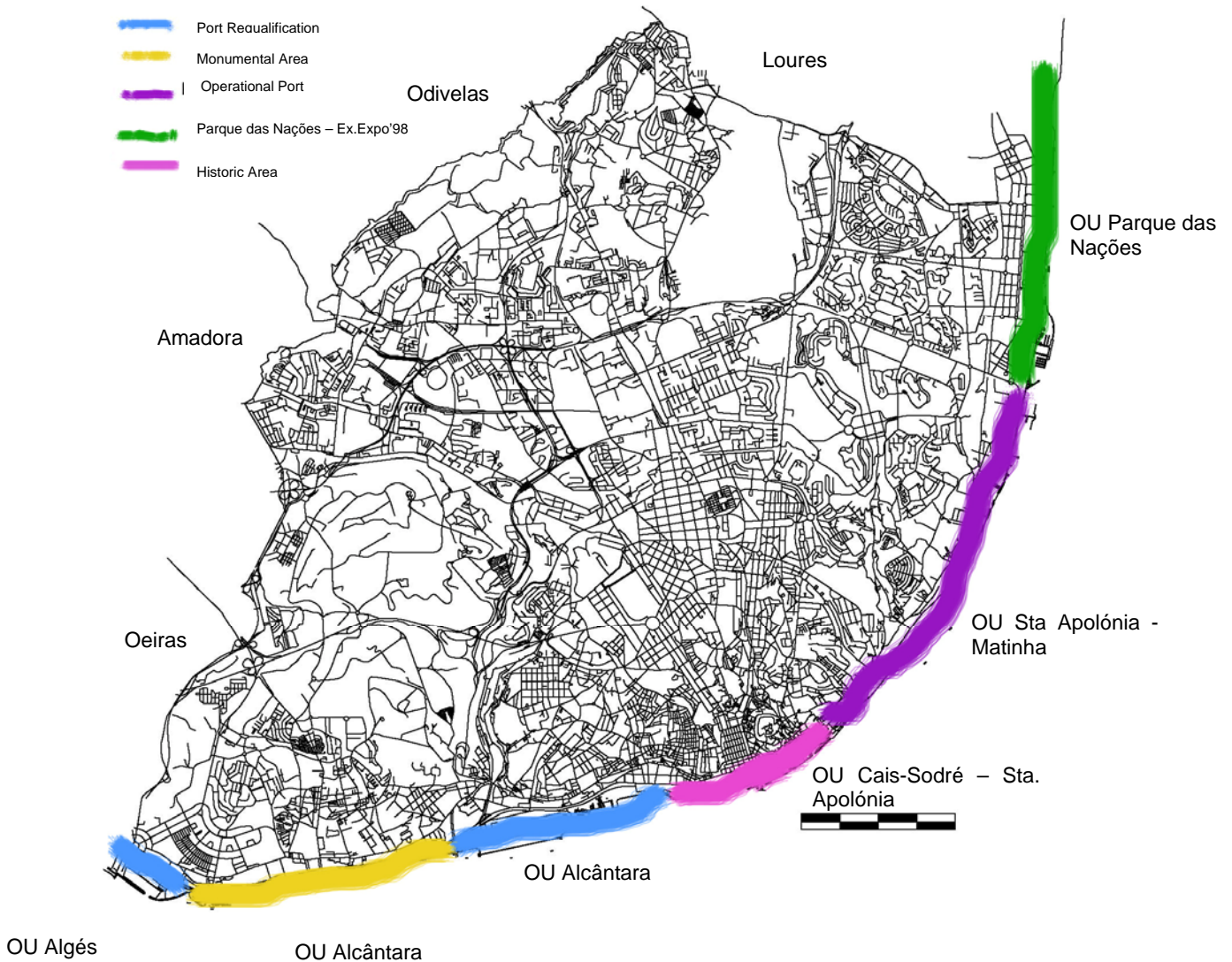


Figure 2 – Lisbon Organic Units

To evaluate the urban quality of Lisbon Waterfront some urban quality parameters were considered based in studies already made in urban quality and others were proposed in this work. The considered parameters were:

1. Urban Aesthetic and Architectonic Quality – architectural quality and their harmonious integration in the city;



2. Physical Connections and Barriers – how easily the waterfront can be reached without physical barriers;



3. Visual Connections – evaluate the perspectives and possible landscapes in certain city spots;



4. Water accessibility – evaluate the direct access to the waterfront;



5. Safety – evaluate the capacity of response to natural catastrophes and safety sensation by the people using the area;

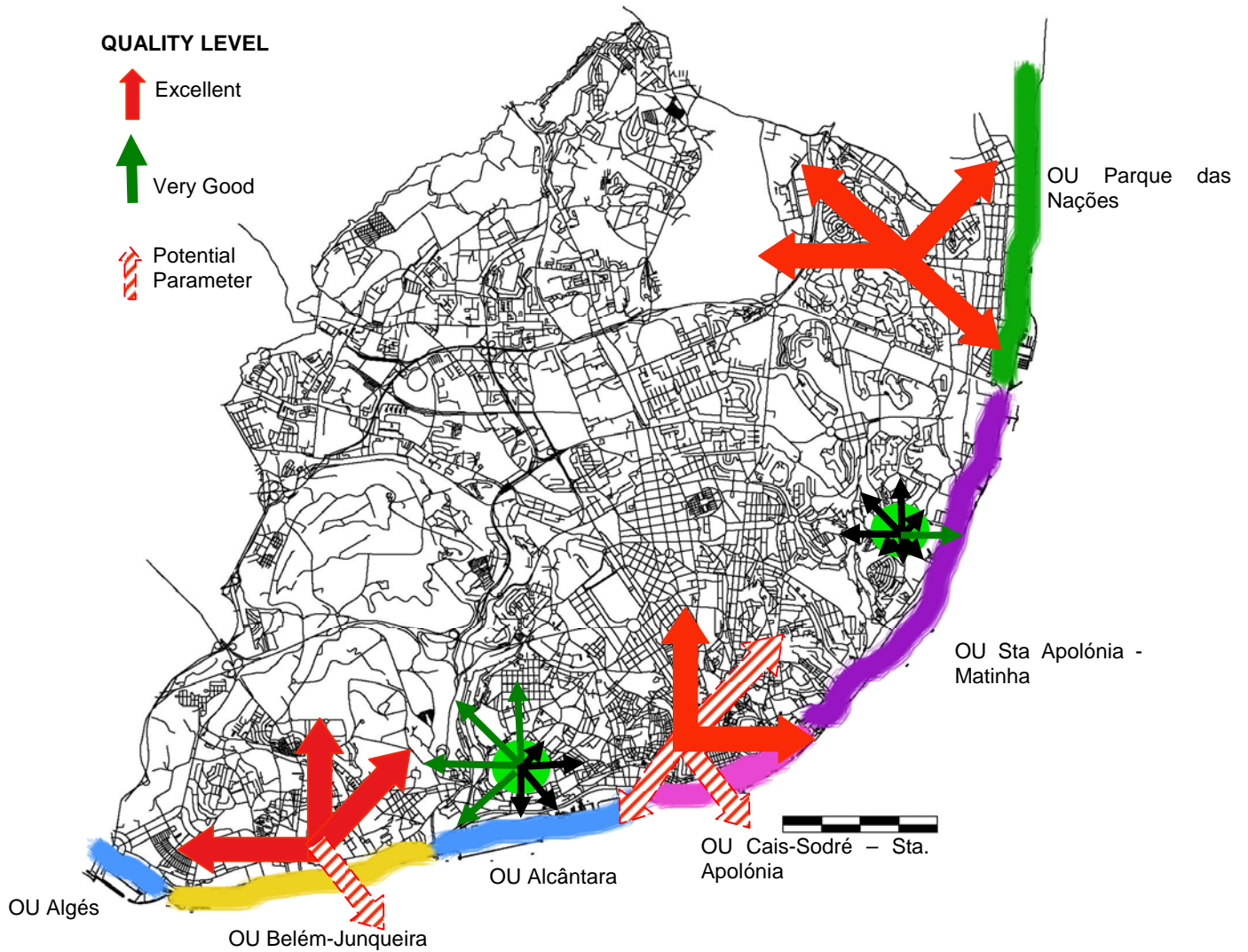
6. Uses and functionalities – evaluate the existence and integration of multifunctional areas in waterfronts;

7. Recreation and leisure – evaluate the existence of social facilities and their added value to the waterfronts;



8. Integration measures – check the existence of formal integration measures between the city and the waterfront.

From the application of these parameters, the personal knowledge of the area and the analysis of previous studies, the Lisbon Waterfront Urban Quality Map is the following one:



PARAMETER CONSIDERED

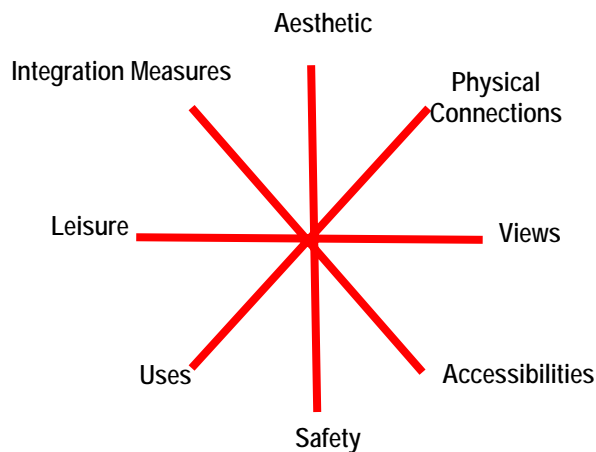


Figure 3 – Urban Quality Map

From the map we can conclude that:

- Belém-Junqueira and Cais do Sodré-Santa Apolónia waterfront are excellent in urban aesthetic and architecture quality.
- Belém-Junqueira, Parque das Nações, are excellent, in their physical and visual connections to waterfront
- Parque das Nações have excellent accessibility to the water followed by Belém-Junqueira and Cais do Sodré – Santa Apolónia with a good accessibility.
- Belém-Junqueira and Parque das Nações are excellent in the recreation and leisure parameter
- Parque das Nações has the best quality in the integration measure parameter

In terms of safety and considering the elements to do the evaluation (sensation of safety, uses, proximity to police and fireman facilities) it can be consider that all are some how safe.

Trying to quantify this evaluation, it was proposed some numeric values, which are a starting point to help to define some measures to promote the estuarine waterfront.

Consider the following score to the proposed evaluation:

- Excellent – 4
- Best – 3
- Good – 2
- Weak – 1

Parameters / UO	Belém-Junqueira	Alcântara	C.Sodré–Sta Apolónia	Sta Apolónia-Matinha	Parque das Nações	Sectorial Evaluation
Aesthetic and architectural quality	4	3	4	2	3	16
Physical connections	4	1	3	1	4	13
Visual connections	3	2	4	2	2	13
Accessibilities	2	2	2	1	4	11
Safety	2	2	2	1	2	10
Uses	2	3	2	1	3	11
Leisure and recreation	4	3	3	2	4	16
Integration measures	3	3	3	2	4	15
Global evaluation	24	19	23	12	26	

We can see that Parque das Nações organic unit is the best waterfront of Lisbon closely followed by Belém-Junqueira and Cais do Sodré – Santa Apolónia each other very similar. Santa Apolónia – Matinha is the only organic unit with a very weak relation with the city.

In “Belém” and “Cais do Sodré” OU there are some parameters there are great potential, and if this parameters were improves these two units would be must more qualified. The red-white arrows show that connectivity, uses and accessibility are potential parameters in OU Cais do Sodré – Santa Apolónia and accessibility is the main one to improve the Belém – Junqueira OU.

For these parameters to become excellent they just need a “little push” – in UO Belém-Junqueira the creation of a big sidewalk between Jerónimos/Coches Museum and the Waterfront, without cars and train (it is possible to built a covered train line and road in a lower level); in Cais do Sodré - Santa Apolónia, the conclusions of Metro to Santa Apolónia, the creation of an Activities Centre in the Navy Dock, the promotion of physical connections through super-footing method between the waterfront and the historic areas and the visual connections area some examples of what can be done to promote the urban quality of the Lisbon Waterfront.

4. Conclusions – Promoting Urban Quality

The waterfront requalification would bring a better life quality for the Lisbon population and would influence the development of the city. This can be measured by:

- Environmental quality of the city and the port
- Creation of a new image from the city and to the city
- Cultural growing and diversification
- Multifunctionality of the urban spaces and port areas
- Waterfront integration with the city
- New technologies application in the port system
- Active involvement of public and private sectors in the decision-making process

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