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Perceived use of green urban parks: User's assessment of five case-studies

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PERCEIVED USE OF GREEN URBAN PARKS: USER'S ASSESSMENT OF FIVE CASE-STUDIES

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KEYWORDS: Urban green parks, Polis Programme, Case-study, Post-occupancy evaluation

INTRODUCTION

Parks, as well as other urban open spaces, are seen as objects of urban regeneration and are also tangible entities, publicly lived and owned by everyone. The globalization of design and the discussion about design models has been increasingly frequent. There are many views about the contemporary park design, but two emerge rather opposing.

On one hand, the park as a metaphor of the city (Geuze, 1993), a cultural, artistic "physical-architectural fashion" (Shaffer, 2006, p 21) that extends the urban form and it is a means to indulge our insistent need to discover community life (Kostof, 1992).The "experimental site for current garden art" (Shaffer, 2006, p 29) and the horticulture of beauty, rather than a naturalistic urban vision (Worpole, 2000). On the other hand, the park is seen as the representation of nature (Koh, 1982), as if contrasting with the "dark side". The sustainable park is well integrated in the urban fabric, yet evokes a new and more ecological aesthetic (Cranz & Boland, 2004). It reclaims the natural systems for the city, connects the bits and pieces of outdoor space, promotes well-being, ecological integrity, construction and maintenance cost adaptation, and the mitigation of a wide range of negative impacts over the city life and environment (Tate, 2001). It also accentuates the need for a biodiversity-based strategy, able to deal with a creative and sensitive management of parks as green urban spaces (Farinha-Marques, 2006). Ultimately, the park is the place designed by nature and time, the loose-fit environment where the absence of formal design keeps the space available to a dynamic allocation of various uses (Ward Thompson, 2002).

David Louwerse (1993) stresses these two conceptions of parks when focusing on the relationship between architecture and the urban park: on one hand the park as an "unroofed building", and on the other the sub-urban park, where there is more space available, and so the opportunity to present a more naturalized vision. If the first is constrained by the architecture and the city form, the second brings up the challenge to adapt nature to the needs of a dense urban life.

Parks are landscapes and these are dynamic, therefore change is one of their qualities (Antrop, 2005). If parks are being designed, managed and used by people at a certain time, political reality can also be one the causes of the transformation (Ward Thompson, 2002). Although sometimes denied as an "ideological battlefield" (Shaffer, 2006, p 29), Ward Thompson (2002) discusses park design by looking at it from two democratic perspectives: Firstly, the park as "melting pot" which tends to absorb cultural differences and seek multifunctional design solutions (Ward Thompson, 2002), becoming an informal space that accomodates free use (Pardal, 2006). Alternatively the park can be seen as a "salad bowl", where cultural differences can find their individual expression, attending to everyone's needs, becoming perhaps more intensively designed, but, has Ophuis (2002, p 9) stresses, safeguarding "the overlapping and interchange of different social realms". Despite that, Bernard Huet (1993) using La Villete as an example, rejects the "plug-in park" (p 20), i.e., a place that aggregates specific functions for everybody and anything, with no integrity. It is a problem to be solved by design, which should then recognize "the need of all individuals to distinguish themselves as well as be surprised and amused by others and, not least, by the design of the place itself" (Ophuis, 2002, p 9).

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The creation of a series of new green urban parks in Portugal, between 2000 and 2010, went through an intense phase, under a large scale government programme, which was mostly modelled upon the successful case of Lisbon's International Exhibition of 1998 (Correia Guedes, Pinheiro, & Manuel Alves, 2009; Partidário & Nunes Correia, 2004; MAOT, 2000). The Polis Programme was designed to assist the environmental regeneration of a number of cities. Medium and small cities were able to access funding with which to generate new recreation and leisure opportunities. This growth however was not concurrent with the development and implementation of evaluation strategies seeking to understand its impact on urban environmental quality and, ultimately, on people's quality of life. In fact, field observations in parks, conducted by the authors for the past 12 years, suggest that most parks in Portugal are generally expensive and intensively designed, following contemporary architectural trends and quickly result in neglected sites, which look as if they're not entirely responding to user's needs and expectations (Farinha-Marques, 2006; Meireles-Rodrigues, 2007).

One of the main motivations of this study was to confront those assumptions with the actual pattern of park use and user's evaluations of the Polis parks. Previous evaluations of the results and outcomes are mainly focused on the programme's governance, planning and environmental issues. Apart from some descriptive analysis and visual quality assessment of Polis parks, there was a lack of scientific research into the way these new parks have met their goals, and almost none in the field of user's and post-occupancy evaluation (POE).

RESEARCH QUESTIONS AND METHODOLOGY

An evaluation as constructive-deductive research strategy can be used to assess existing landscape conditions and to assess the success of programmes, plans, designs and management actions (Swaffield & Deming, 2011). As developed by Friedman, Zimring and Zube (1978), it has proved to be valuable as a feedback mechanism for practice and teaching, to support decision making, to create and improve places, assessing user's needs and preferences and improving efficiency and value of money. Theobald (1979, p 61) emphasizes the idea that evaluation is also a means to learn from good practices and mistakes, proposing that evaluation should be "viewed as a process to improve rather than prove or disprove". As an example, Bryant Park, in New York, re-designed in the beginning of the 90's from a decrepit site and described by William H. Whyte (Tate, 2001, p 25) as "the territory of dope dealers and smugglers" has become, we would assert, a very pleasant park.

A post-occupancy evaluation (Goličnik & Ward Thompson, 2010; Marcus & Francis, 1997; Moore & Cosco, 2010; Nager & Wentworth, 1978) is a multi-method approach to the evaluation of a built environment, consisting of the appreciation of its performance. Cooper Marcus and Francis (1998, p 345) explain it as "a systematic evaluation of a designed and occupied setting from the perspective of those who use it". It has been used to evaluate different issues and types of open spaces and frequently includes methods of observation and behaviour mapping, surveys and interviews.

This paper aims to look at the results of a post-occupancy evaluation (POE) of five green urban parks, in order to explore common broader lessons about the Portuguese particularities of park use, preferences and needs. The study that led to this paper is part of a wider doctoral research on the evaluation of contemporary green urban parks in Portugal, explored from the points of view of experts and users. It addresses the following questions, considering a selection of Portuguese green urban parks, created under the Polis programme: How are parks being used? Are they successful from the user's point-of-view?

In order to obtain valid data for a user-led approach on Polis parks evaluation, a selection of five case-studies allow a focus on the particularities of an individual park yet retains the possibility to look at emerging broader patterns (Yin, 1994; Francis, 1999, 2003; Loures, 2011). An early phase of profiling the Polis parks led to that selection, from an list of 31 green spaces produced after consultation with the 28 municipalities which were funded by the first stage of the Polis programme. The selected parks are inside the urban perimeter, allow free public access, and range in size from 8 to 20 hectares. The selection also represents the wide geographical cover of the programme. A POE was carried out on this sample to test user's preferences, needs and

satisfaction levels. This examination incorporated methods of observation of use, activity and behaviour mapping and on-site structured interviews.

The observations and behaviour mapping were conducted during spring and summer 2011. The fieldwork was organized by sets of three observation sessions for each of four periods of the day (morning, noon, afternoon and evening). This resulted in 12 sessions per park and, at least, one round per session, depending on user's frequency and recording speed. In total, 12 to 27 rounds of 18 to 25 minutes were carried out in each of the five parks. The data recording system was developed under this research and makes use of a *Asus multitouch PC T91MT*[TM] to operate the geographic information generated in *QuantumGIS*[TM] software. The input of data is facilitated by a user interface form, developed in the *Qt designer*[TM] programming application. The computer allows operating in tablet mode, using a pen, and has proved to be very quick and more reliable than the conventional paper-based system. A total of 4797 users were mapped and profiled according to their gender and age group, social interaction, level of activity and type of behaviour.
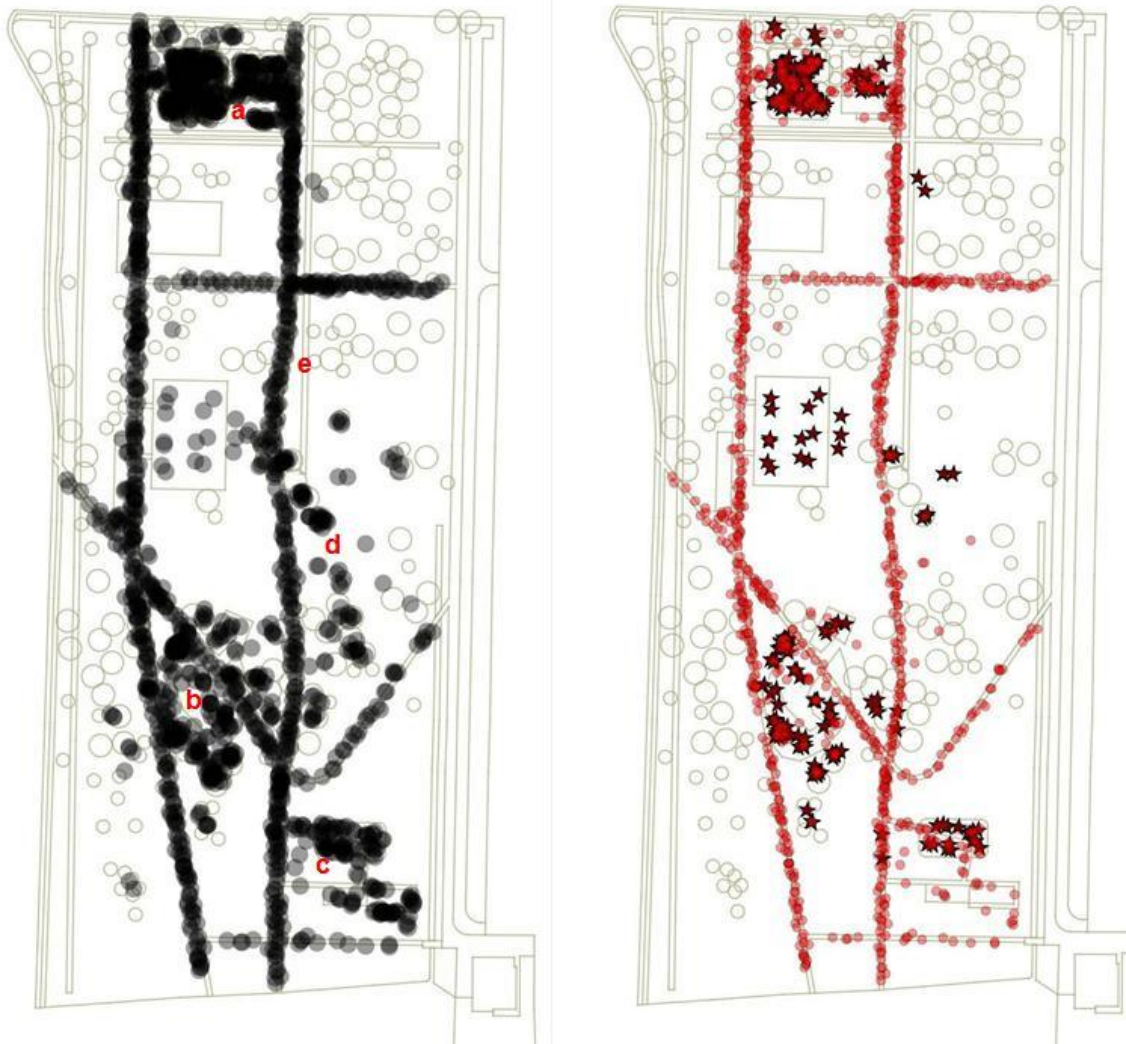

Figure 1 - Active use map on St. António Park (PSACC), in Costa da Caparica (n=1188), discriminating 263 (star) users involved in playing with or without ball (map on the right). Map of the general pattern of user's occupation (n=1790) at PSACC (map on the left). The main concentration of users is signed by red lettering: (a) pine wood playground, bar and esplanade; (b) open playground with slide; (c) open playground for younger age groups; (d) sparse pine wood with free lawn; (e) ways to the beach. (⬉ North)

The on-site interviews were conducted between summer and autumn 2012. There were both closed and open questions organized into 3 blocks. The first block was intended to differentiate the pattern of use of the park by the respondent, the second block on the user's evaluation and the third collected demographic information of the respondent. The data collection was carried out both on a paper form and on a map. The form was designed to record text answers, such

like the answer to "What are your two main reasons for visiting this park?". A map under an acrylic cover, was developed in order to record geo-referenced answers to questions such as "Which place in the park do you like the most?" or "Which route do you usually take inside the park?". 351 interviews were conducted, which vary from 60 to 70 per park. A quota by gender and age-group was pre-defined, taking in consideration the results from the behaviour mapping.
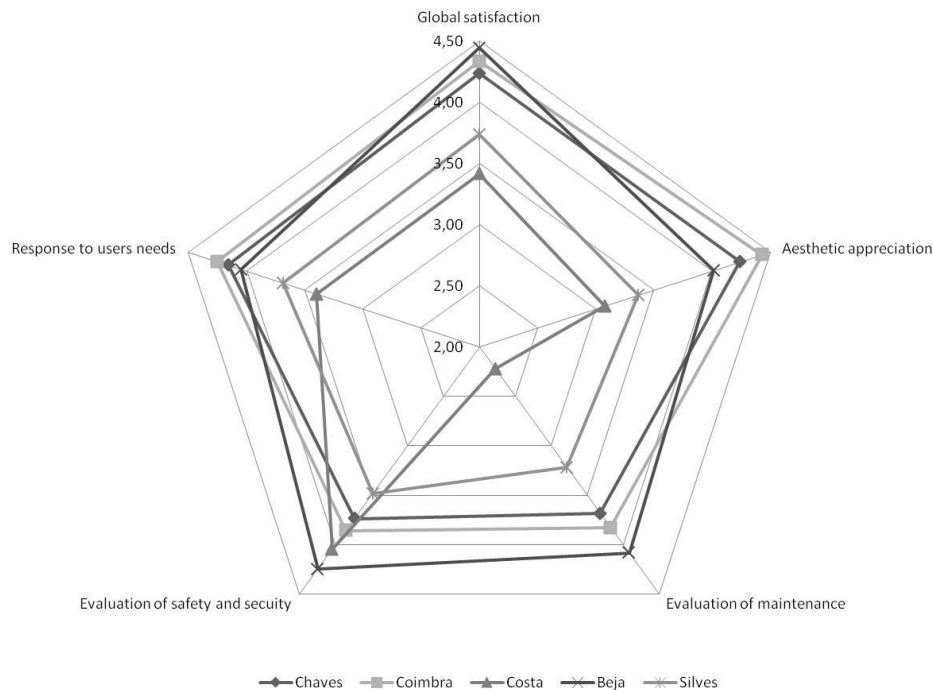

Figure 2 - Chart of the user's evaluation using a likert scale (1-5), considering global satisfaction levels, aesthetic appreciation, evaluation of the maintenance and care, evaluation of safety and security, and the response to the respondent needs.

SYNTHESIS AND FINAL COMMENTS

Preliminary findings show that users find the sampled parks to be pleasant and attractive in general, yet, many negative aspects emerge. Generally, users point out the lack of trees and shade, the lack of care, the excess of constructed elements and car parking areas, and unfinished places as the main negative aspects of the parks. Conversely, playgrounds, circular pathways and shady settings seem to be very much appreciated. Overall, users tend to be more critical about maintenance and safety issues, finding them more important than the visual qualities and the park response to social and their own needs. Even so, their suggestions towards the improvement of the park seem to point mostly to aspects related to the usability.

Corraliza (2000) advocates than in many Mediterranean countries promenades and streets are meeting points and support social interaction. This fact appears to deny the role of parks, but it actually supports the results obtained from the observations and interviews, placing the pathway routes (especially when forming circuits) as one of most preferred element of park use. It showed also that there is quite a high level of social interaction along these routes, i.e., walking is not at all a solitary activity. The same happens with playgrounds which show high levels of social interaction, whether among children or parents.

The majority of the park users are essentially involved in physical activity, which is consistent with the fact that the most occupied areas in the entire park are playgrounds and pathways. In St. António Park, in Costa da Caparaica (fig. 1), for example, the shady pine wood playground is clearly the favourite, in spite of the tempting toys offered by the other playgrounds situated in the sun. The presence of trees and shade opportunities seem to be seen as one of the greatest benefits of the parks.

Parks with river margins also show great preference both for active and passive recreation. Even the water margins are a place to social interaction, as opposed to solitary contemplation. The sitting areas, especially when they are not in the shade, seem to be less preferred than the places by the water, where meeting opportunities are far more recurrent.

Water, green and shade emerged as the most relevant reasons to explain preferred places so as to improve the quality of fruition in summer. The contact with water and its contemplation and the need for a cooler and thermally comfortable outdoor environment are seen as two of the most pursued characteristics, which is perhaps in evidence throughout the history of garden art in societies with arid and Mediterranean climates..

Open lawns and meadows showed low useage. The sedentary users seem to prefer the sitting areas by the water; under the trees, which provide appealing shades; or those by the pathways. These results differ from Goličnik & Ward Thompson's (2010) who have applied similar methods to parks in Edinburgh and Ljubljana finding that the sedentary and passive use of the open meadows is otherwise very significant, concluding that it occurs especially when a certain "edge-effect" (idem, p 45) accommodates users in this areas.

The Portuguese hot summer is a very important reason for the lower occupation of the meadows; nevertheless, the use of lawns is quite popular whenever there are shade trees dotted about. Despite these findings, whether the lawns are entirely open or providing enough shade, the need for lawns is a very important matter and, when these are missing, users usually identify them as a priority to improve the park. Mature sparse woods in transition, partially covering the clearings, seem to be the best combination in order to maximize multifunctionality and recreation in the meadows, while still preserving enough open land to respond to prospect needs, which evokes Appleton's (1975) theory of Prospect-Refuge.

These assumptions of the scattered woodland recall psycho-evolutionary theories, such as the Habitat theory and the savannah hypothesis (Orians & Heerwagen, 1993, 1992; Balling & Falk, 1982; Orians, 1980), which suggest that people favour savannah-like landscapes. These claim that since Man has lived most of his evolutionary time in the African eastern-savannah, we maintain the memories of these preferred environments, an intrinsic predisposition to favour these models of landscape (Balling & Falk, 1982), which affects our biological-emotional well-being (Ulrich, 1983, 1986).

From the enclosures and deer parks to the Arcadian and pastoral landscapes styles moved to the aristocratic formality of beauty, thence to park systems and recreation planning, and to the contemporary distinct views. Whether aligned with the city form or seeking nature as inspiration, functionally homogeneous or individually inclusive, the park should perhaps be the beautiful place of freedom, recreation and restoration, grounded in local realities, cultural and ecologically-oriented, open to the city and to everyone.

This is an exploratory study and thus it requires development. Further analysis of the data and the particularities for each of the parks as well as further fields of research, such as expert evaluation, will allow a more in-depth tracing of the qualities of the parks and needs and preferences of users in Portugal, and also in developing a comparative analysis with findings from other similar research.

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