A Methodology for Colour Planning in Urban Furniture

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ABSTRACT

This paper presents a new methodology for urban furniture colour planning, which is an
important part of the contributions of a research project for a PhD in Design. The aim is to
define and emphasize the importance of Colour application to urban furniture, arguing that a
pertinent application of colour to these elements may contribute for a better visualisation and,
consequently, to ameliorate its use. The study also addresses the issue of the colour
application in the city environment, mainly for city areas identification and how its use may
increment the orientation within the city, becoming colour a signing factor. The development
and implementation of the new methodology will allow the determination, with a higher
scientific approach and rigor, the colour planning to be applied to urban furniture in each
quarter, or urban area, of a city.

Figure 1: View of a Place of the Baixa quarter, with and without colour application to urban furniture

1. INTRODUCTION

Orientation within the cities, the wayfinding and signage problems, is not always easy to
solve. Occasional visitors and, even, the inhabitants often have difficulties to locate places, or
find their way, in cities which architecture is more or less similar in their different quarters,
and where there are a lack obvious reference points. Concerning this issue, Charles
Hilgenhurst wrote:

"Today we are the strangers in our towns. We do not know and cannot see how things
work. Our support systems... are remote."
The information supplied in the environment is largely irrelevant to our immediate purposes or to an understanding of the world in which we live (Hilgenhurst apud Berger 2005:18)

Colour as a mean for wayshowing has been successfully employed, though punctually, in interior and exterior spaces, architecture and urban areas. Its criteria and widespread application appears to be a way to solve successfully the orientation problem.

So, the main aim of this research was to use colour in the urban furniture in a way that it may originate a system which will function simultaneously as an identification factor for the different city quarters and as an orientation factor for its inhabitants and visitors. In parallel, colour application to urban furniture will also become an inclusivity factor, by incrementing these elements visibility and use.

2. FUNDAMENTATION

Human beings show psychologic and physiologic reactions to colour that make it an important factor for information, communication and understanding the environment. These connotations have already been considered on colour applications to architecture, examples of which are the chromatic plans for the cities of Turin and Barcelona, and Jean-Philippe Lenclos, Michael Lancaster or Tom Porter projects, among others.

However, these concerns are rarely considered in relation to urban furniture, despite multiple warnings about their lack of visibility made by various authors:

Color – architecture – cities – colorful cities – colour on the urban scene – how does it all fit together? Is a colorful urban backdrop enough, will more colour really change our living and working environment? This is the most basic question of all. To put it differently: Is it possible to raise a city’s visual accessibility, the quality of experience and orientation, without merely underlining its character as a huge, conglomerate consumer object? (Machnow & Reuss 1976:21).

For example, in 2009, the City of Austin Design Commission developed very specific and detailed Urban design guidelines for Austin, but unfortunately they didn’t mention once the importance of colour planning or use. And sometimes when this is mentioned in Urban Planning, we never find it related with the urban equipment.

In fact, in order to be used, urban furniture must be clearly seen and, therefore, it must stand out from the environment. As a reinforcement to the necessity of more visibility to urban furniture, we must consider that the city population is constituted by a wide variety of people, with different visual acuities and limitations and, also, by a high percentage of older people. Insofar as people grow older, their ability to see small details decreases and eyes have a crescent difficulty of adaptation to sudden changes of light or a quick change in focus. Bearing in mind the visual limited population, only a small percentage is unable to see any colour and the main part is able to distinguish luminosity differences (Lindemann et al 2004). Therefore, to have better visibility conditions, under an inclusive design perspective, urban furniture must present a good chromatic and luminosity contrast. Considering this, Per Mollerup (2005:161) states that “colour can be seen from longer distances than other graphic elements” and that “in signage differentiation is the first and foremost role of colour”.

Along with the cities development, complex traffic and transport systems networks emerged. Those caused difficulties to the city visitors’ orientation and aroused the necessity to create tools that could help guiding people and, at the same time, renew their identification
with the city (Berger, 2005: 10). Gallen Minah (2005: 401), also states that the contemporary city development originates a great diversity and complexity in architecture that fights against visibility. Colour bypasses its function as an element for definition and unification, and becomes a visual characteristic within the chaos and complexity of the visual field.

Concerning the orientation within the city, and the identification of its different zones, we may consider city maps that differentiate them through the use of different colours. However, on the urban space those colours don’t show up, and there is no concern in establishing the correspondence to a real use on this space. The ideal would be to identify the city quarters by specific colours which may differentiate them and, as well, stand out the different urban furniture elements, such as: dustbins, benches, telephone boxes, bus stops, street lamps, bollards, etc.

Thus, this research project seeks to demonstrate the importance of colour in urban furniture and signage, taking into account that a pertinent colour application may contribute to a better visualization and legibility and, consequently, improve their use and fruition.

3. METHODOLOGY FOR COLOUR PLANNING

The research process is focused in Lisbon, establishing as result a colour plan that can be applied to urban furniture at the different zones of the city. A Case Study methodology was used, including three different cases: three quarters of the city of Lisbon with their own particular specificities. The first one, Baixa, CBD city area, is the very heart of the city and in 2004 was a candidate to the world heritage; the second, Campo de Ourique, is a traditional quarter, both commercial and residential; and the third one, Parque das Nações, is a recent quarter which is still under development.

During the research process we acknowledge that the existent methodologies of support to data recording and creation of Chromatic Plans, which are generally linked to architecture, were not sufficiently adequate to reach the objectives of the present study, neither the expected and desired results.

Consequently, a new methodology was developed, using an extensive direct observation, with the use of mechanical devices, including photographic mapping of both urban furniture and signage, in order to evaluate their visibility and legibility, as well as their colour applications. In each quarter, and to facilitate the study, a sample route was defined, including the main streets and places and, also, some secondary ones, with the intention of encompassing the quarter most representative zones, those with specific characteristics. Along with the chosen route, an exhaustive record of all the environmental colours was made, including material samples not only from the buildings, but also from pavements, vegetation and any additional elements present with a relative permanence in the urban environment (the non permanent colours) that must be taken into account for the spatial chromatic readings, which were then classified using the Natural Colour System (NCS). These collections were completed by photographs of the environment elements and panoramic views from the different blocks, using as well urban plans, architectural elevations and sections of the selected paths, which act as elements of the environment colour components.

All these records were methodically indexed in forms and maps, previously designed and tested, which allowed creating a data base guided by scientific rigor, in order to determine a chromatic palette for each quarter and, consequently, to establish a coherent chromatic plan that may be applied to urban furniture.

Each “Chromatic identification form” for every street, or place, contains:

1. Identification of the city zone (quarter), street or place, and block;
2. Map of the street, or place, with the block marked;
3. Photographic record of every colour applied to architecture and the correspondent NCS notations;
4. Chromatic record and NCS notations of the other present elements;
5. Photographs of each block different views, completing the systematic record of the street, or place, chromatic environment;
6. Records from the existing relation between the buildings height and the streets width, in order to evaluate the quantity of day light and the sky colour preponderance, in addition to the tarmac colour and quantity, as well as the green elements present;
7. Summary of all present colours, proportionally represented, and their position on the NCS circle and triangle.

In order to guarantee the scientific rigor on each quarter chromatic plan determination, we considered the dominant colours, proportionally represented, choosing colours to the urban furniture which may establish an adequate chromatic and luminosity contrast with the dominant colours and, also, respect the traditions, culture, identity and history of the quarter.

The urban furniture chromatic plan, that will be different for every quarter, must stand out from the environment, contributing for a better legibility and identification of these elements and, in the same way, will become a city’s area identification element which may be used in different supports and, this way, facilitate the orientation and wayfinding within the city.

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REFERENCES