'URBAN MAR' - AN ESSAY ABOUT OUTDOOR FURNITURE DESIGN

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Abstract: This paper deals with a very interesting subject of present design. This is about creating useful objects that are supposed to fulfil people expectations for functionality and which, at the same time, are good looking, and reflecting their need for beauty. This essay shows that this goal can be fulfilled if the designer is able to go behind the obvious aspects and explore more profoundly the aesthetic components of the product. It is also fundamental for a design to match with the build environment, and also to be in perfect harmony with the natural environment.

Key words: design, leisure, furniture, modular.

1. Introduction

The main goal of the design activity is to fulfil human needs. Sometimes, these needs are expressed by the customers, other times they should be anticipated, therefore designers have to extend the research activities and rely on creative methods and intuition.

The aim of the paper is to present the process of designing products desired by a certain category of users, starting from specific requirements and finishing with the concept modelling.

The product to be designed is a set of furniture for outdoor use. The concept should be based on the everyday life of people living in big cities who want to spend some time with friends or family in open spaces like parks, or beaches. Designing such objects represents always a challenge for designers because, besides the requirements related to product functionality, they should be part of the

natural and build environments, and have an appropriate symbolic value.

This paper is part of a project which research and development were started by Alexandra, as an Erasmus student at Universidad Politecnica de Valencia, Spain, and developed as graduating project at University *Transilvania* of Braşov [3].

The first part of this paper will reflect the research to specify the project and goals. The second part will show the concept development, ending with the final design and product specifications.

2. The Research

When a company starts developing a new product, it is important for designers to look at existing products. The research activity is a very complex one and should develop on several directions. The first one is "the user". Usually, designers create objects for a group or category of people; only few

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products are designed for all of them. In our case the intention is to design pieces of furniture for a specific category of users, therefore this category should be identified, and properly investigated, in order to find specific requirements that would define the product and build its personality. The second research direction is "the product". What do people like at a certain moment and how that is visible in the market? In our times, developments are quickly followed by new ones, so there is a need for innovation.

The first steps of the research are about discovering the way people are living in this part of Spain - Valencia and its neighbourhoods - and looking at Spanish culture and civilisation, in general.

To gain a better overview of the current furniture market, first was to look at new and existing trends. Also a basic market analyze has been done to understand the competitors on the market and the needs and expectations of the clients. In this way, the two aspects of the research were put together for fulfilling the objective of the research activity, which is to formulate the requirements.

In the case of the outdoor furniture, here are some issues regarding the two-directional research.

Valencia is Spain's third biggest city the coastline of the located on Mediterranean. The city has leisure areas for all kinds of activities which can be used throughout the entire year. Due to the large number of inhabitants, both Valencians and tourists, and of course because of the warm climate, many people spend their leisure time outdoor. In Spain, friends and families (mostly with children) spend much time together, and eating and drinking together is a very important habit.

The goals to be reached by designing the outdoor furniture are that it should be used in multiple ways, and therefore satisfying multiple needs. The focus was to design volumes that can be used both as tables

and chairs depending on the position they are into. The people who use these pieces should choose between several sitting positions, and have access to a table within the same furniture. The modules should also be light, moveable by the user within a certain area to a desired spot. Briefly, it should be: comfortable, facilitating eating and drinking, easy to maintain, weather resistant, resistant to vandalism, permitting using by small groups, eco-friendly and have good aesthetics - local inspiration, attractive, recognisable etc. [2].

The research activity should later on be orientated towards material options. Materials qualities and properties should be explored in order to choose the most appropriate ones for modelling the final shapes, to permit the surfaces colouring and finishing to the desired texture.

3. Searching for Ideas

In finding ideas for the new product, designers are starting from the requirements using creative methods, and basing on their *expertise* and *intuition*. They also can start with the aesthetic needs of the potential users of the product. They should have in mind all the aesthetic components of a product, i.e. historical, cultural, social, technological, or harmonic, besides the functional ones.

In fact, we were speaking earlier about creating the object in perfect harmony with the environment it is going to be part of. As we know, harmonic factors include proportion, therefore the composition, behind the impression of a nice looking object, should be *proportional*, and probably respect a certain "rule", a certain geometry. The composition can be a modular one, bringing all the advantages of such a construction, like flexibility, or mobility. Not less important is the formal relationship inside the composition and between the object and the surrounding structures.

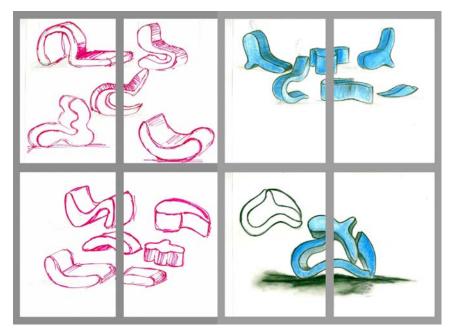


Fig. 1. Developing rough sketches for the final concept

4. Concept Development

For a designer, drawing is the most common way of expressing the ideas. In most of the cases, the ideas are fixed through sketches. In the early stages, the sketches are rough drawings (see Figure 1), then, as the solution becomes more consistent, they should be more refined. This development has to follow up the design procedure and respect the requirements - both technical and aesthetic ones.

The technical functionality of an object is easier to be expressed by the customer and therefore easier to be implemented by the designer. The aesthetic functionality is more difficult because the designer should explore more profound aspects related to the user behaviour, taste, habits, customs. Creating a coherent, unitary, organic structure is challenging for a modular construction. Like in a modular Lego construction, a different arrangement of the pieces should result into a multitude of meaningful solutions.

In developing the concept we should be interested in the symbolic value of the object, or the objects' semantics. The shapes and colours should say something about local natural environment, culture, and historical heritage. It is fundamental to create a harmonious connection between the components and the whole, i.e. between the furniture objects and the environment, the architecture of surrounding objects.

From the original ideas, four have been selected as the most promising. Then these were developed into more detailed drawings and eventually evaluated against the constrictions. All were compositions build on organic forms, and modular, jigsaw puzzle constructions. The elements of each construction have connotations related to natural environment where the objects will be used: plants, animals, insects, clouds etc., and the same with the colours: blues and greens.

The modular construction permits the main functionalities fulfilling and suggests a good understanding of the ergonomic principles.

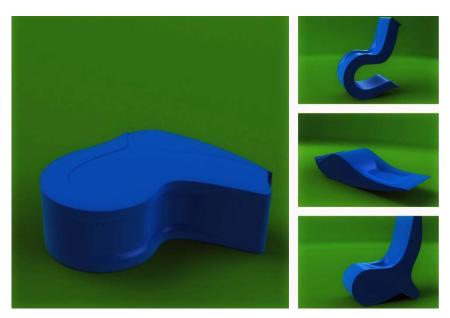


Fig. 2. 3D modelling for the final concept. Product - left, components - right

5. Final Design: The Product

The final solution was called "Urban Mar" and is a modular construction consisting of three different pieces that fit into each other forming one bigger object. Each component can be used either as chair or as table, by rotating them into different positions; they can also be used together as a single object: table, bench, or both, simultaneously.

The name, "Urban Mar" was inspired by the place where the object will be used, and by its functionality. The object should be used in open space, as outdoor furniture, in parks, playgrounds, beaches, generally, near the water (sea, lakes, rivers, or ponds).

The object consists of three modules, as follows: the big wave, the little wave, and the dolphin (Figure 2, on the right). The three pieces can be put together like the parts of a jigsaw puzzle. The advantages of this solution are both visual (aesthetic) and functional. The three pieces can be put together into an organised unit, with a meaning and a clear message, and permits

optimal use, storage and transportation at the same time.

5.1. The Product Usability

For the "Dolphin" piece there are two seating positions available, one basic position and due to the design of the module, to sit in a more relaxing position is also possible if the piece is turned the other way around. This module can also be used as a table, where one can put the drinks, or computer, for example.

The usage for this piece of furniture and for the others is shown in the pictures in Figures 3 and 4.

The component called the "Big wave" has three seating positions available. One can use this module as a high chair, a lower chair and also as a bench where more than one person can sit on. The bench can be used also as a longer table where you can put the drinks, the food, the chessboard and whatever needed.

The "Small wave" can be used either as children chair or swing, or as table.

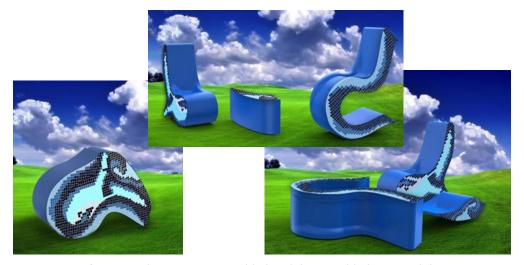


Fig. 3. Product in use: assembled and disassembled into modules

5.2. The Product Appearance

The product was designed to be part of the environment and also to be environmentally friendly.

The material most frequently used in Valencia for decorations is the ceramic tiles. It is a Spanish tradition - an influence that came from the Orient through the Islamic art [4] - and visible everywhere in the streets: on the houses, benches and floors. The tiling is also present in modern buildings and constructions in bright, vivid colours. An example in Valencia is the *City of Arts and Sciences* were the well-known architect Santiago Calatrava used tiling in many ways [5].

On the side of every module are applied some graphics in order to create a pattern from the pieces. In this way the modules are connected not only due to their shape, but also through the means of graphic design that brings more unity to the composition/furniture.

The graphics form a mosaic when the pieces are put together: a dolphin swimming into the sea (Figure 3). The inspiration for the graphics comes from the Valencian sea life, but also from the organic shapes of the furniture. In the visuals that have been created the traditional tiling of Valencia is used, but transferred into a modern style by using the *pixel art*.

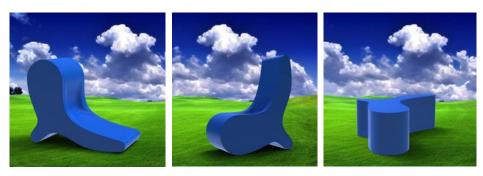


Fig. 4. The Dolphin module for using in three positions

The most appropriate material to be used is polypropylene [1]. The material chosen determined a light, durable and environmental friendly construction, easy to assembly and disassembly. Polypropylene is a resistant and relatively cheap material and totally recyclable. The colours used for surfaces and finishing fit with the environment. More than that, when not in use, the furniture objects may be considered part of the landscape, some decorative pieces.

6. Conclusions

Through design, we can build the link between people, what people desire/need, and solutions/products. The aim of this paper is to better understand what designing for the people and for the environment really means.

Because people in Valencia are very family focused, it is important to maintain the relationship between family and friends. In different neighbourhoods, places, occasions, people spend a lot of time, talking, eating and drinking together, for this reason this part of the day is very important.

One thing that has been mentioned for the research activity is the lack of private gardens, because the majority of the people lives in apartments in Valencia. Therefore it is a city where there are many outdoor areas and possibilities for outdoor activities. It is a fact that people bring their own furniture to sit outside. This is probably because there is a need for comfortable furniture where people can sit, eat, and relax in open air, for a longer period of time. This need was the opportunity to create an innovative concept for outdoor furniture that would satisfy expected and even unexpected needs of the inhabitants of the region.

The objects designed reflect the people need for functionality and their expectations that the objects they use are friendly with the environment and perfectly fitting with it.

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