

PROXEMIC DESIGN OF URBAN RELAXATION FURNITURE

PROXEMICA ÎN DESIGN-UL MOBILIERULUI URBAN DE ODIHNĂ

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Abstract. *This paper analyses the dynamic evolution of furniture elements for parks and gardens in stylistic and also functional, useful, constructive and ergonomic terms. Having an important role from aesthetic and functional point of view, this type of furniture throughout its evolution must correspond to the current requirements related to the physical and psychological comfort of people, but also from the point of view of the environment's "comfort". The care to create environmentally friendly furniture will be a decision factor for the designer in its choosing strategy of the interference rules between the furniture items and the green spaces.*

Key words: green spaces, benches, gardens, eco-friendly.

Rezumat. *Lucrarea trateaza evolutia dinamica a elementelor de mobilier urban destinat odihnei atat din punct de vedere stilistic, cat si din punct de vedere functional, util, constructiv, ergonomic. Avand un important rol din punct de vedere estetic si functional, acest tip de mobilier in evolutia sa trebuie sa corespunda cerintelor actuale legate de confortul fizic si psihic al omului, dar si din punct de vedere al "confortului" mediului inconjurator. Grija de a crea un mobilier adecvat mediului inconjurator va fi un factor de decizie pentru proiectant in strategia modulului de abordare a regulilor de interferenta intre elementele de mobilier si spatiile verzi.*

Cuvinte cheie: spatii verzi, banci, gradini, ecologic.

INTRODUCTION

Urban furniture represents a contemporary term that includes all objects installed in the public spaces of a city which answer to all the necessity of their users, changing the image of the city. This category includes: resting furniture (benches, backless benches, chairs, tables), objects that contributes to keeping the city clean (dumpsters), equipments of street illumination, communication and information (municipal or cultural information billboards, placards with the name of the streets, orientation (information) tables, playgrounds, objects used for traffic (delimitation poles, barriers, bicycle parking supports, horologes, traffic lights), flowerpots, lattices and protections, trees, station covers destined for the users of the city's transport system (<http://www.tc.ro/arhiva/228-18.07.2003/?cat=tehnologii>; [http://www.berra.ro/advanced_search.php?categ\[\]=40&subcateg\[\]=179](http://www.berra.ro/advanced_search.php?categ[]=40&subcateg[]=179)).

Starting with the 19th century the furniture used in the public spaces was designed to be in harmony with the urban architecture, inspired by nature, using metal and wood, but without being used the term "urban furniture". The term "urban furniture" starts to appear in 1970 (fig.1), in the same time with the "birth"

of the urban furniture line and its design, a period when also the first rules appear concerning the urban furniture and the concession of its maintenance. The arrangement of a public space is a relatively complex process which needs to satisfy all the participants of the urban life. The authority's decisions are not always compatible with the users' necessities and requirements. The work of the architects, landscape artists and designers tends to develop together with the municipality and the global projects, taking into account the functionality of the objects, the materials used in their composition, their dimensions, ergonomics and resistance. In order to answer the users' necessities the urban arrangement tends to develop socialization, restoring for the public spaces the dignity and the quality lost in time, attributing an essential role to the meeting and relaxation spaces. (Mitreă V., 2000).

MATERIAL AND METHOD

Starting with two reference studies, important in the use of the exterior space's domain, the paper evaluates the way today's necessities for urban comfort are satisfied by the evolution and contemporary design concepts of the urban furniture destined for resting and socializing. The studies, presentations and evaluations made by environmentally friendly methods, namely virtual 2D and 3D, create the premises of some analyses without material consumption (toner, paper, ink, etc).

RESULTS AND DISCUSSIONS

Proxemics studies the use of space by man. According to anthropologist Hall (1959), the personal space is in the shape of a sphere and the individual has ownership feelings for this mobile sphere which he is included in. Most of us are more familiarized with the term "personal space". The personal space is between 46cm and 360cm, the distance we are reported to other people (parks, parties, social events). An important factor in dimensioning the "personal space" represents the person's culture (differences appear amongst countries, location: urban/rural, etc.) Hall identified four types of distances that characterize the interactions of the individuals: **intimate distance** (characterizes the interactions between lovers, married couples, parents and their children, etc); **personal distance** which generally represents the length of an arm and constitutes the usual distance of the daily interactions amongst friends and acquaintances without having physical contacts; **social distance** (used in the interactions that we have with persons we superficially know and also in formal interactions); **public distance** (characterizes the formal interactions), assuming a physical distance of 3 to 8 meters.

A study of Knowels (1973) highlighted that groups, as individuals, have personal spaces. Knowels placed groups of two and four people in the center of an airport's waiting room and noted that "invaders" which moved to one group to another rarely existed; most of them avoided the group (fig.2 and fig.3). The bigger the group was, it was less likely that its space was violated. By connecting Hall's and Knowels' studies with the historical evolution of the urban furniture used for relaxation, it can be observed that it started with objects destined for

intimate and singularized external relaxation, presently having proposals for objects destined to collective and semi-collective relaxation. This is due to the human being's growing necessity for contact and socialization.



Fig. 1. Gaudi – Guell Park, Barcelona

([http://www.berra.ro/advanced_search.php?categ\[\]=40&subcateg\[\]=179](http://www.berra.ro/advanced_search.php?categ[]=40&subcateg[]=179))

A main element of furniture, the park benches, started to exist in the same time as the first green areas destined for relaxation and resting. In the culture of the great civilizations like Ancient Greece, the Roman and the Persian Empires, the benches from the gardens were built from marble or other rocks. The end of the 18th century is characterized by building the park benches from lighter materials (wood with metallic legs or structure), starting the idea of the bench with wooden slats placed on metallic structure (Raizman D., 2003). This type of benches, are relatively fragile, being vulnerable to the weather and/ or acts of vandalism, the wood being periodically replaced.



Fig.2. Modular furniture pieces for socialization

([http://www.berra.ro/advanced_search.php?categ\[\]=40&subcateg\[\]=179](http://www.berra.ro/advanced_search.php?categ[]=40&subcateg[]=179))



Fig.3. Modular furniture piece for socialization

([http://www.berra.ro/advanced_search.php?categ\[\]=40&subcateg\[\]=179](http://www.berra.ro/advanced_search.php?categ[]=40&subcateg[]=179))



Fig. 4. Furniture element involved in the urban landscape

Making the benches from other materials started in the 20th century, by replacing the classic wood and rock benches. Aside the benches other types of objects were created, to be possible their use for collective relaxation, like: backless benches, steps, margins of the green spaces, etc. (fig.4). Presently it is considered that the urban development is associated with the development of the urban furniture and its components. The urban furniture represents a comfort element of the public spaces, an element of strict necessity, essential to all urban or rural places (<http://www.solutiurbane.ro/>).



Fig. 5. Relating the furniture with the urban landscape (<http://www.tc.ro/arhiva/228-18.07.2003/?cat=tehnologii>)

The designer's role is defining in the design and placement of the urban furniture by making the space optimal and more beautiful (fig. 5). The furniture's design answers to the citizens' and the city tourists' need for comfort, simplifying the modern urban life (fig. 6 and fig. 7).



Fig. 6. Solution for the maintenance of the urban furniture ([http://www.berra.ro/advanced_search.php?categ\[\]=40&subcateg\[\]=179](http://www.berra.ro/advanced_search.php?categ[]=40&subcateg[]=179))

The basic complex elements of the furniture's design (aspect and functionality) are important in the general tendency of creating furniture in conformity with the architectural elements or with anthropomorphous forms. The design varies from simple to complex, according to the purpose of the furniture, the period of the construction, material, technology, purpose, placement, price, etc. The same type of furniture (fig.8 and fig. 9) can be made from different materials (plastic, wood, concrete, mosaic, steel, crude iron, etc.), according to the elements mentioned before.

The multiple functions of the product (fig.7, fig.8, fig.9 and fig.10) offer different possibilities of: relaxation, socialization, having different activities, aside from its capacity (due to its modular concept) to adapt, according to space and placement area, to the socializing desire.



Fig.7. Modular furniture destined for urban spaces
 ([http://www.berra.ro/advanced_search.php?categ\[\]=40&subcateg\[\]=179](http://www.berra.ro/advanced_search.php?categ[]=40&subcateg[]=179))

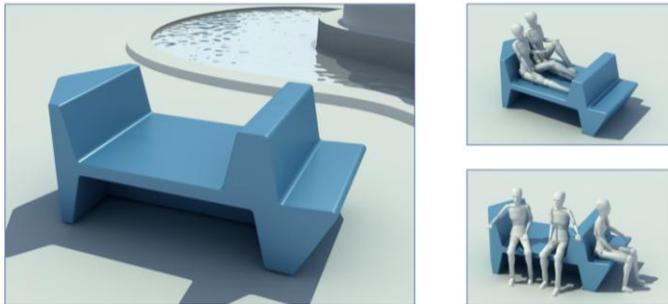


Fig. 8. Modular bench (concept by Caraman Stela)

These characteristics determine the favorable appreciation of the concept, concerning its placement in the modern urban. By its placement in the ergonomic and aesthetic requirements, the presented concept (fig.8 and fig.9) becomes performance generator, managing to get attention, to determine socialization and dialogue.

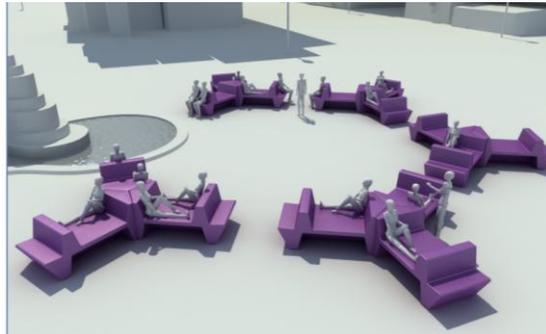


Fig. 9. Arrangement models for collective relaxation (concept by Caraman Stela)

In order to answer the eco-design requirements concerning the care towards the environment, the concept presented in fig. 10 presents a bench without additional assembling elements. The multifunctional concept, made by natural

material (wood), respects the current trend of care towards the environment, nature, user but also the manufacturer.



Fig. 10. Concept of ecological, traditional, multifunctional bench without additional assembling elements (Concept by Balan Ilarion)

CONCLUSIONS

The presented concepts, based on an extensive research concerning the proxemic and history of urban furniture, are benches which answer to the requirements concerning comfort, urban aesthetic aspect, eco-design, placing the products in the eco-design concept. Multifunctional, modular, with the possibility of making them from different materials, without assembling elements, easy to maintain and adaptable to different spaces, the urban furniture represents a challenge for the citizen, municipal administration, designer, architect and landscape artist. It must be considered in the urban plan, in the eco-design rules and in the ergonomic rules with respect for environment and society.

Acknowledgments

This work was supported by CNC SIS – UEFISCSU, project number PNII – IDEI code 1226/2007.

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