

DESIGN OF THE GROUND PUBLIC SPACE UNIVERSITY SQUARE

Abstract: *The paper presents a few representative phases about the University Square, which contributed over time to the image that reflects today and two proposals of modern design. I will focus on creating a friendly and dynamic public space that promotes a high quality way of life with a modern design.*

Key words: *urban planning, design, public space.*

1. INTRODUCTION

Great public spaces of the world are facing various factors and unexpected consequences of the complex process of globalization, trying to cope with change. The competition for a sustainable urbanism is a challenge but keeping more advanced positions and achievements on a scale that increases with city size.

To attract development factors and profitable economic activities is required improvement tools implementation, a structure more appropriate, methods of planning and design, but also more sophisticated ways of integrated and holistic approach of public space.

Today, public space is seen both as a product in its entirety on a global market, and the market itself that exploit their products for users. The site should be designed and planned taking into account several factors for sustainable use.

Sustainable urbanism is a concept with viable principles and long-term strategic development. There are two major objectives to be taken into account: first the health of the user and secondly managing resources provided by nature, so that future generations can continue to benefit from them.

The concept is based on sustainability and accessibility of the site in terms of morphology, the social and the spatial management representative functions. It's also very important to focus on ecological factors and quality: acoustic, comfort indices, visual, air quality and last but not least innovative motor design as permanent development of green technology.

Development planners and designers must consider the environmental impact of development projects in the past, present and future. This can identify that the ideals and objectives of planning are in conflict.

An eco-urban landscape can bring many benefits to the community, financially, aesthetically and in terms of a healthy life. It is proven that people are more productive, creative, happy and healthy if they live and operate in a natural environment.

Green spaces within the built area of the city is a functional category, whose aesthetic and ecological specific is determined primarily by the built facilities and reasonable accommodation comprising of cultural and educational activities, sports or recreation. The essence of planning a territory, including the one for green spaces consists in choosing the most suitable style to suggest the most appropriate uses and use its full potential.

Urban squares began as a place of commerce and still would need to have the same commercial role in addition to the role of public green space. They can be both functional and aesthetic or environmental role. Some seem designed for aesthetic and photos, but the sale of goods and the change remains a great service for public space.

2. PROBLEM DESCRIPTION. THE UNIVERSITY SITE HISTORY

This is a place with a formed identity during periods that have left their mark on Bucharest space. Thus, site transformation has experienced three major periods: monarchy's period, communism and the days after '90s until now.

In the mid-fifteenth century, the University of today represented the northern edge of the market town of Bucharest. In 1550, between Calea Victoriei and str. Nicholas Bălcescu, from Military today, were several village settlements which later became slums of the fair: Sărindar in the Military, Gypsy Fair (Academy Street today and surroundings), suburb of St. Sava in training (the University) then to the east, forming slum in the corner.

In the eighteenth century, specifically in 1679, Serban Cantacuzino erected Royal School. It became, in the eighteenth century, the Royal Academy, then to be converted by anaphora Eforiei Civil Schools by Caragea Voda and reinforced in the March 24, 1818, the National School of St. Sava [1].

In 1864, Carol Szathmary Pop posed what was to become "the crossroads of the university" of the disappeared (1888) "Coltei's Tower". They see Academy (University), Monastery of St. Sava (the site of the statue of Michael the Brave) Sutu Palace (foreground). On the right, the place is occupied by hotel next round Kiesch.



Fig. 1 University Site in 1864

During the monarchy, from the reign of Charles the First to that of Michael the First, University Square's appearance has changed dramatically. From a crowded intersection, thanks to systematization around 1900s, it has gained a western aspect by setting up patrols, and then drawing boulevards around permanent space devoted to center of the city [2].

Immediately after the forced abdication of the king and the imposing of the People's Republic, the statue of Brătianu was eliminated from the round, and any market or avenue name linked to the old regime - monarchy - has been erased.



Fig. 2 University Site in 1956

Specifically, the evolution of University Square in communists' time is divided into two distinct phases. Between 1948-1965, during the People's Republic of Romania and under Gheorghiu-Dej, the priority was to remove the traces of the former monarchy Brătianu market, but also from the collective mind of the inhabitants of Bucharest. Between 1965-1975, during the Socialist Republic of Romania and under the Ceausescu, the market has seen an unprecedented growth: has been populated with new and imposing buildings, received an underground parking and a pedestrian. A part of the old prestige was recovered by the reappearance of the round. After the earthquake of 1977, the Faculty of Architecture's neighborhood has undergone an essential change, and at the University has started the construction of a subway station, connected to the pedestrian passage, but through the sacrificing of a part of the underground parking.

Year 1990 marked the transformation of the University and Square protests against the regime in pole-NSF Iliescu labeled "neo-communist" by "thugs".

From 1989 to 2010, the University Square had not undergone widely notable changes of space, as during the monarchy and the communist regime. The landscape has remained largely the same, but social figure remained, grace dramatic events happening here. Market aura has acquired iconic status surpassing central junction city map [2].

In 2010, the General Council of Bucharest Municipality in partnership with the Bucharest Branch of the Architects' Chamber of Romania initiated a design contest for an underground parking space in University Square and also for the design of the square above ground.

3. RESEARCH INTERNSHIP-PROJECTS

The competition for a sustainable urbanism is a challenge but keeping more advanced positions and achievements on a scale that increases with city size.

Sustainable urban development planning is only possible way to integrate human activities increasingly threatened. This can quickly become a source of new and differentiated competitive advantages for cities and regions. That is the duty of architects, designers and landscape architects to analyze and understand the impact of landscape issues and news in our cities.

The awarded projects - "Design of the ground public space - University Parking: Technical Project" - after the 2010 design contest, were selected from 52 projects, that entered the competition. Out of these, 13 projects were rejected and 4 disqualified, leaving only 35 allowed by the jury. The judging was done between 31st of October and 3rd of November, 2011, and was given three awards of 60,000 ron, 45,000 ron and 35,000 ron, and three mentions of a 20,000 ron each.

Project that won first place was conducted by three architects from Italy, France and Romania: Ambra Fabi, Simona Dirvariu și Carole Lenoble.

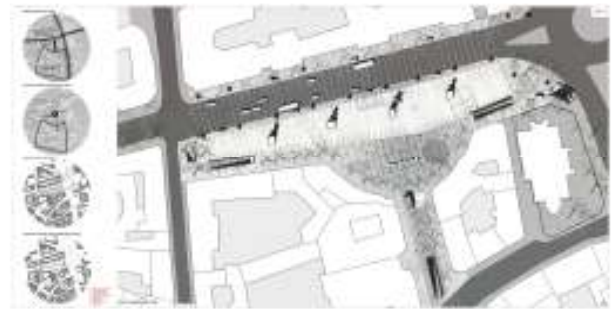


Fig. 3 Plan awarded project

The solution offers a unified market in the center, which is a pedestrian area designed in the shape of the island and surrounded by an artery roadway. With this choice, the team wanted to emphasize the memory spot, highlighting the 4 statues.



Fig. 4 Plan awarded project

The competition winning project was completely destroyed and badly executed without taking into account the technical details of the project. Deviations of the project were many: trees and vegetation were not considered wide and were not taken into account the materials and details for the project's execution.



Fig. 5 Photo University Square 2014

Additionally, the architects sent an open letter to the mayor, complaining that their project was not respected. Another complaint was related to the construction company that crossed out some small lamps initially included in the project. This was replaced with large lighting poles and improper setting.

4. APPLICATION FIELD –DESIGN OF THE GROUND PUBLIC SPACE UNIVERSITY SQUARE

4.1 First proposal

University Square is the space arranged in front of the University building and it fits into a shaft full of history and monuments on the East-West.

In front of the University are located four monuments: Ion Heliade Radulescu (sculpted in Carrara marble in 1879 by the Italian Ettore Ferrari), Michael the Brave (built in 1876 by the sculptor Carrier Belleuse and placed on the altar of the monastery Saint Sava), George Lazarus (raised in 1885 by sculptor Ion Georgescu) and Spiru Haret (sculpted in 1935 by Ion Jalea) [2].

To develop and create a space connectivity and enhancement of the market is necessary a human scale urban planning. University Square could be a representative market of Bucharest thanks to: the relation with a significant history of building site (the monastery St. Sava and Royal Academy); social and cultural symbolism of space; proximity to historic center; pedestrian space resource.



Fig. 6 Plan of first solution

I propose recreational spaces, lawns, water games and lights to animate the area and to create a space for meeting, promenade, socialize.

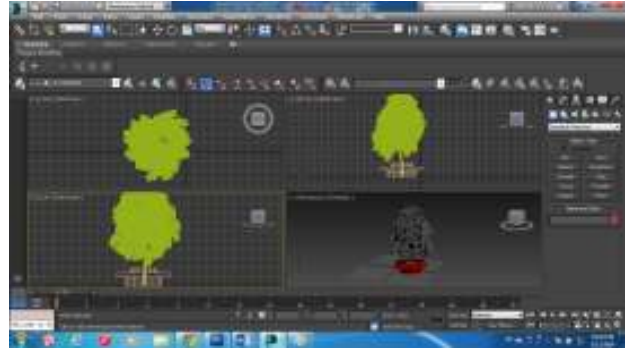


Fig. 7 Detail of a modern volume with double functions-no.4



Fig. 8 Resting place



Fig. 9 Pedestrian space



Fig. 10 Parkway

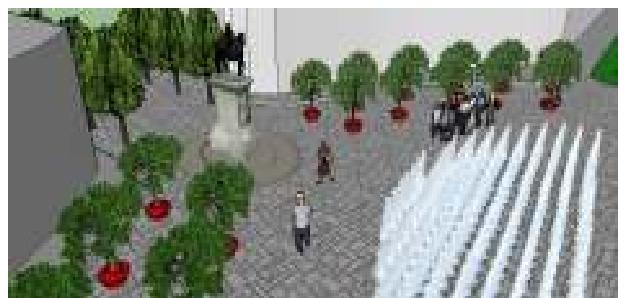


Fig. 11 Perspective with water and light choreography



Fig. 12 Space for promenade



Fig. 13 Pedestrian space



Fig. 14 Lawn with decorative species



Fig. 15 Statue of Michael the Brave - overview



Fig. 16 General plan of University Square

Legend of figure 16:

1 - track cyclists; 2 - lawns with decorative species as *Abies concolor*, *Chamencyparis lawsoniana* and *Ilex aquifolium* (figures 12-14); 3 - Archeological site-The Monastery St. Sava marked in the pavement; 4 - Modern volume with double functions (*Catalpa bignonioides*) and

place to stay (fig. 8 and fig. 9); 5 - Water and light game (fig. 10 and fig. 11); 6 - The Statue of Michael the Brave moved (fig. 15); 7 - Velo station; 8 -Places to stay.

4.2 The second proposal

The second proposal is based on embedding functionality today and those that were not considered, on the user's need.

4.2.1 Colored pavement

Accessibility site is created by some guidelines painted on pedestrian pavement leading to important areas. In addition, bicycle track allows people to cross market in a safe and exclusive way. Also, it encourages a healthy sports life and protects nature.

The colors chosen for the guidelines are warm colors and cool colors, designed as a whole. Warm colors are closer to segregate the traffic with a higher degree of noise to the nearest market center, where there are cool colors.

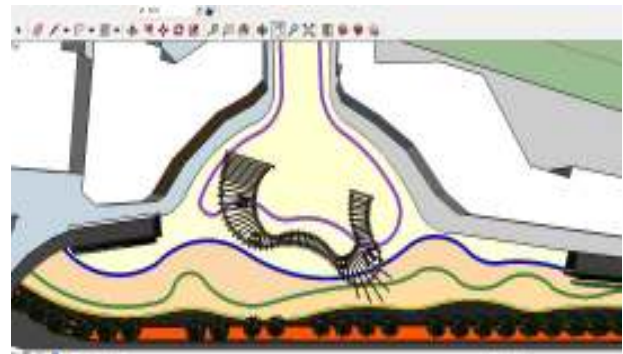


Fig. 17 Colored pavement – ensemble view



Fig. 18 Colored pavement – lateral view

4.2.2 The pergola

The pergola is a wood structure with hemicycle form that helps with creation of shadow spaces. In the same time, this structure is a plants support and also the plants help to providing shadow for the square. Underneath the pergola I put some benches where people can rest, and have a cold resting place.

All of the benches are center focused, where, in the middle of square, the people can see some organized shows.

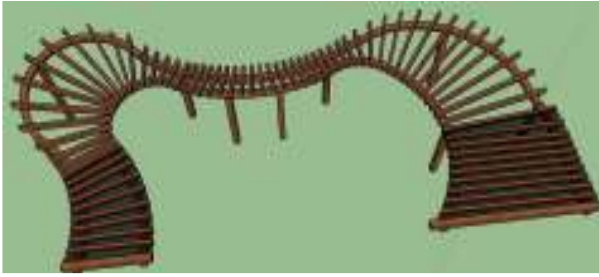


Fig. 19 The pergola – top view

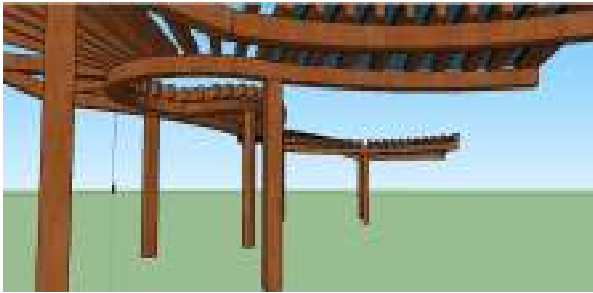


Fig. 20 The pergola – lateral view

4.2.3 The stage

The stage is located in center of square. This is also a wood structure that has two roles. First one is to cover the underground park place air engines. The second one is the main role for every stage, to sustain organized events (cultural, educational and others).

The main stage has a 36 square meters surface, and it is at half meter altitude. It has a round shape and is rounded by benches.



Fig. 21 The stage – top view



Fig. 22 The scene – lateral view

4.2.4 The bicycle support

For this square I chose two bicycle supports, each one posted at the two square entrances. Every biker can leave his bike in safety and have a walk to the center square. He can rest on any bench him like. These bike supports are flamboyant, and this fact has also a psychic role which brings you a smile on your face.



Fig. 23 The West square entrance – first bicycle support



Fig. 24 The East square entrance – the second bicycle support

4.2.5 Green spaces

The entire square needs to be oxygenated, and for that, I choose to delimitate the street road against the sidewalk with tree series. This is also a visual delimitation for people who walk by foot. These trees help to provide shadow for bicycle band.

In the middle of square, I choose to put some little shrubs because on the underground there is a park place which doesn't allowed us to grow bigger trees.

At the West entrance, in back of bicycle support, I cover the concrete wall with a green wall. This is a visual mesh.

In the middle of the city, the green areas are very important for UE.

Vertical wall modular system is a simple and contains a series of specially designed modules. Contains rudimentary irrigation systems and doesn't contain recirculation systems in micro-ecosystem resources. This system allows the replacement of plant or structure segment and doesn't involve a very complicated mounting on the wall outside the building modules of suspension systems.



Fig. 25 Vertical green wall



Fig. 26 Alignment of trees



Fig. 27 The pergola and the statues



Fig. 28 Tree series



Fig. 29 Perspective with scene and pergola

5. FUNCTION OF THE SQUARE

The adopted solution takes into account the values and functions that have to hold a public space.

Cultural function means that type cultural activities can take place in a space, as well as educational events, street performances, etc.

Social function refers to group activities and interaction between users, leisure, meetings, exchange of views. For a better communication between users have larger proposed seating area.

Sustainable development and ecological function is maintaining a healthy space by creating green areas. In this case we opted for green walls that can be self sufficient resources through recycling systems [3].

6. CONCLUSIONS

It's important to have more recreational and ecological spaces with various functions and a comfortable design for a sustainable city.

Material resources related to a product throughout its entire life cycle, have an important impact on the environment. This impact could be reduced given the quality and quantity of materials chosen by the designer product material resources throughout its life, and their eco-attributes - the amount of stored energy and recyclability - as well as some strategies for reducing the amount these resources used for a product.

The modern ecodesign multiple activities include solving various problems related product: structure, layout, design, functionality, information content, material and energy saving, environmental protection etc.

The recreation areas are necessary in every city, and mostly in a very big city, where more and more spaces are occupied by new generation of desk buildings. We need to equilibrate the balance between concrete percentage and green space percentage.

This approach is a strong weapon against destroying the nature, fighting on the same side with pollution standards imposed by UE [4].

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