

# THE IMPACT OF LANDSCAPE DESIGN ON URBAN AREA. CASE STUDY OF IASI

## IMPACTUL AMENAJĂRILOR PEISAGISTICE ASUPRA SPAȚIULUI URBAN. STUDIUL DE CAZ MUNICIPIUL IAȘI

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**Abstract.** *This study aims to be a synthesis of case studies of small landscape improvements in the city of Iasi and highlights the quality factors of these urban improvements under the following criteria: urban, morphological, structuring, plant usage and identity, while examining the impact of these criteria on public space and the urban image.*

**Keywords:** landscape design, urban area, the impact of landscap design

**Rezumat.** *Studiul se consideră a fi o sinteză a studiilor de caz asupra amenajărilor peisagistice din municipiul Iași și evidențiază factorii de calitate ce aparțin acestor amenajări după criterii urbane, morfologice, structurante, vegetale, identitare, analizând totodată impactul acestor criterii asupra spațiului public și asupra imaginii urbane.*

**Cuvinte cheie:** amenajări peisagere, spațiu urban, impactul amenajărilor peisagistice

### INTRODUCTION

The image of the city and, by default, measuring the quality of life, depend largely on public space, which plays a major role and polymorphous. Between spatial conformity and the needs of the inhabitants, appears the question: should we change the city in order to improve the quality of life or vice versa? However, the two processes follow and mold each other - the history of cities has pointed out that spatial transformation accompanies spatial development and back.

The town charm derives from the wide range of activities characteristic of each one individually. Filtering and analyzing nature through art, a viewer ennobles the urban space (sometimes disqualified by default) discovering the beautiful encrypted discourse (most often studied) of urban objects (Grigorovski and Răchieru, 2011).

Specific places, constructed or landscape designed, natural, or artificial, the public space of a city have, depending on their players, different meanings. Thus, the practitioners of built space (architects, planners, geographers, engineers and landscape architects) approach these urban and architectural fragments as trump cards of a city, as major structural basic elements of a built environment. For residents and users, the public space of the cities represents meeting places, landmarks, which plays a major role in the social cohesion of the individual.

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Historians, sociologists, environmentalists are oriented on the information and messages that these spaces send, facts regarding the history, culture, mentality and the level of economic and technological development, the quality of life and the values that define society over time. (Țurlea, 2008)

In present time, the most important aspect of urban life is cities practicability; its bearability as a public space. Thinking about public space does not involve speaking about its ancient meanings of this urban space, the agora, a concept that cannot be revived, but which can be rehabilitated based on the needs of the contemporary man. The city is not only man-made landscape, but also heritage, tradition, culture. Everyday life, sound, light and darkness, vegetal, air, humans, water, sky - all these spaces and landscapes are assembled in a continuous motion and in continuous evolution, in landscapes that we perceive consciously or unconsciously. (Grigorovschi and Răchieru, 2011) Improving the attractiveness of public spaces under current conditions depends on quality, vitality, and security.

According to EU directives and legislation (Emergency Ordinance 114/2007), our country must provide 26 hectares of green areas per inhabitant in each locality, by the end of 2013. The norm of 26 m<sup>2</sup> / capita is the minimum accepted by the European Union while the World Health Organization recommends a 50 m<sup>2</sup> / resident. Currently, the average green area per capita in Romania is 9 m<sup>2</sup>, of which 5 m<sup>2</sup> in urban areas. However, Stockholm is 70 m<sup>2</sup> / resident, Vienna is 70 m<sup>2</sup> / resident, in London 64 m<sup>2</sup> / resident, 31 m<sup>2</sup> / resident in Warsaw and in Bucharest is 2.5 m<sup>2</sup> / resident. In Iasi, in 2010, according to data provided the Environmental Protection Agency is approximately 20 hectares of green space per inhabitant.

## MATERIAL AND METHODS

This study aims to be a synthesis of studies conducted with the students of The "G.M. Cantacuzino" Faculty of Architecture, Iasi, fifth year, in Landscape discipline.

The work carried out with the students had first to identify determinant items of the quality of spaces and landscaping, and their classification by categories of quality factors, following various grounds: urbanity, morphology, structuring, vegetable, identity, etc. The stakes of the study was to analyze the impact of these criteria on public space and on urban image.

The landscape to be observed, small or medium, are located in the center of the town or in its immediate vicinity, in areas with different predominate functionality (university area, residential area, cultural area, protected area, etc.), thereby ensuring the character of generality of the results.

The study areas mentioned above were observed during October 2011 – May 2012. The base of the study was mainly periodic visual observation. The data were collected and processed following a series of quality factors of landscape design, divided in criteria.

The case studies have been carried out at the following locations:

- the front of the B Building belonging to The "Al. I. Cuza" University;
- the area defined by The "Voievozi" Park – The Student's Cultural House – The Children's Palace;

- the garden of "St. Spiridon" Hospital; the area defined by The Palace of Culture – "Luceafărul" Theater;
- the area near Blvd. Țuțora and "Splai Bahlui Right Bank" Street junction from Podu Roș;
- the junction area between "Splai Bahlui Left Bank" Street with "Gh. Ghibănescu" Street.

First phase study involved designing an evaluation grid for landscape design and urban spaces. Second phase of the study required a proper analysis of the pilot areas mentioned above, by applying the evaluation grid developed in the previous phase. Thus, we determined the impact of urban criteria, structuring, morphological, and identity, vegetable, mineral, water, etc. on public space and on urban image. The analysis of landscape design and urban areas according to established quality criteria was made by allocating to each criterion one of three impact values: low, medium, high. Phase III forced students on drafting solutions to revitalize and redevelop studied areas, in order to eliminate as much as possible the specific malfunctions of studied areas and increase the quality of these spaces.

## **RESULTS AND DISCUSSIONS**

As result of the first phase of this study, an evaluation scale upon the current state of the case-study areas was established. Thus, quality factors of landscape design were grouped into, elements of the same category as subordinate of a criterion. The established criteria are: urban; structuring; morphological; identity; vegetal; aquatic; mineral; green space management; diurnal-nocturnal ratio; the psychological effect.

The urban criteria applied to study area seek especially its location within the city, heading to the main traffic routes, to the historic city center, to the downtown area. At the level of relations established with the existing neighborhoods we attempted to determine the relationship with neighboring urban functions (dominant / subdominant / complementary) and establish urban texture space (the ratio between the built and green space) and visual impact that prints the urban image, the overall image. Also in this category are included the specific landmarks of the analyzed area, that turns the stud- area into a landmark in itself and the versatility of functions, the possibility of using the area by urban actors.

The structural criteria evaluates elements of space composition (axes - real, virtual, directory paths, delimiting vegetal elements, mineral elements), the size of studied site, parceling, accessibility, existing course (the existence of a logical route, ergonomic) and relationship to other spaces green.

Morphological components follow the relationship between morphological elements (mineral, vegetable, aquatic), but also the morphology the parties that make up the whole and the relationships established between its parts (contrast, similarity, subordination, equality, unity, complementarity, harmony, etc.).

The identity of a place is conferred on its specific activities that it can accommodate and the presence of urban elements that facilitates certain activities. Identity criterion aims to determine and establish symbol, which individualize space. (fig. 1, 2, 3)

Vegetal criterion quantifies the adaptability and diversity of present plant species depending on the season, also analyzing the complexity of current vegetal composition (color, size, dynamics, durability, etc.).

The mineral criterion identify the extent to which the ground level, through sloping, uneven or its flatness, soil types and their possible recovery and artificial interventions can significantly improve the quality of public space.

An important role in analyzing the impact of landscaping on public space and on the urban image is held by the presence of water, in its dynamic or static form of natural or manufactured element. The study tends to modify the image of the landscaped space by including water assisted by intensity of light (day/night, season) (fig. 3, 5, 6).

Determining the daytime /night ratio aimed at identifying specific elements that define different area depending on time of day.

The economic efficiency criterion establish the level of influence which it green space management has by management understanding costs of maintenance, of rehabilitation / development, waste management and public contribution to the welfare area. An important factor of this category is the the possibility of introducing profitable activities.

Public space corresponds to needs and structural strength related to community, to all urban actors involved in shaping it, to culture, political determination, the social and community needs. (Grigorovschi and Răchieru, 2011)

In general, the proposals for improving the urban image of the area and the overall visual impact have sought to create new compositions of the space, compositions that allows the materialization of attractive pathways, with one or more axes of composition sustained centers of interest grouped by their importance. (fig. 1, 3, 4, 5, 6). It was also noted that the introduction of temporary or permanent structures, structures that can accommodate different cultural and social activities (film screenings, multimedia events) and alternating events that take place day and night (fig. 2, ), which implies providing the space lights and lasers games (fig. 1, 4, ), increase considerably the quality of landscaping, and therefore the public space and the urban image.



**Fig. 1** - The front of the B Building belonging to The "Al. I. Cuza" University - proposal



**Fig. 2** - The area defined by The “Voievozi” Park – The Student’s Cultural House – The Children’s Palace – proposal



**Fig. 3** - The garden of “St. Spiridon” Hospital – proposal



**Fig. 4** - The area defined by The Palace of Culture – “Lucefărul” Theater; - proposal



**Fig. 5** - The area near Blvd. Țuțora and “Splai Bahlui Right Bank” Street junction from Podu Roș – proposal



**Fig. 6** - The junction area between “Splai Bahlui Left Bank” Street with “Gh. Ghibănescu” Street - proposal

## CONCLUSIONS

The notion of place, space, living framework for, shape, define the landscape of urban life and constitutes the same number of elements that interact and continually seek to achieve a balance of forces acting to define the landscape and scenery in the city where we evolve as actors. (Grigorovschi and Răchieru, 2011). The impact of each criterion on the quality of public space landscape improvements of Iasi has virtually the same value. There are no predominant quality criteria, the quality of space and landscape improvements is determined by the value of all high quality factors, combined, and aggregated in a spatially homogeneous system that generates the overall quality of space, uniqueness, attractiveness, and "genius loci."

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