ANNALS OF THE UNIVERSITY OF CRAIOVA

Series: ✓*Biology*
✓*Horticulture*
✓*Food products processing technology*
✓*Environmental engineering*

Vol. XXX (LXVI) - 2025

THE URBAN IMAGE AND THE ECOLOGICAL POTENTIAL OF EDGES IN THE CASE OF CRAIOVA HISTORICAL CENTER

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Keywords*: urban landscape, city image, green fences, ecology.*

ABSTRACT

This paper examines the theory of urban image as articulated by Kevin Lynch, focusing on its relevance for urban regeneration strategies. It reports on a pedagogical project developed with landscape architecture students, translating theoretical notions into practical design solutions. The methodology combined site analysis, land-use opportunities, and proposals for transforming opaque boundaries into green, permeable interfaces. The approach integrates aesthetic, ecological, and sustainability principles, aiming to enhance spatial continuity and pedestrian experience while reinforcing the identity of Craiova's historic core. The results demonstrate both educational value and practical applicability, suggesting a replicable model for similar urban contexts.

INTRODUCTION

Urban planning encompasses multiple layers of development and action, as it is the discipline concerned with all aspects of the evolution of cities. David Lynch's theory of the urban image discusses the main elements that define how we perceive cities. In practice, an individual's experience of the urban environment is shaped by several categories of elements: circulation paths, edges, nodes, and squares.

Within the project developed for the *Urban Planning and Territorial Arrangement* course, together with third-year students, we explored how a specific area of Craiova's historic centre aligns with the premises of a harmonious urban image.

The boundaries of private properties represent a critical element in the perception of urban space, influencing the coherence of street fronts, visual continuity, and the character of the place (Cullen, 1961). Particularly in historic centres, where the built heritage is subject to pressures of densification and modernization, fences and enclosures can become both elements of identity and sources of fragmentation (Lynch, 1960).

In the specialized literature, the urban image is defined as a collective mental representation of the city, articulated through elements such as paths, nodes, edges, districts, and landmarks (Lynch, 1960). This project aimed to investigate to what extent the transformation of property boundaries can contribute to the regeneration of the urban fabric and to the improvement of the pedestrian experience.

MATERIAL AND METHODS

The boundaries of private properties constitute an essential element in the definition of urban space, as they mark the transition between the public and the private realm. They play a dual role: protecting and separating property, while also defining the street frontage and the collective image of the city. In Gordon Cullen's vision (1961), who introduced the concept of *serial vision*, visual continuity along a street is crucial for the coherence of the urban landscape. Fences, walls, and other types of enclosures influence this continuity, shaping how the pedestrian perceives the succession of spaces. A continuous frontage, with coherent materials and heights, strengthens the character of the place and facilitates visual orientation; conversely, fragmented frontages with improvised or discordant fences produce dissonance and affect the perception of the area's identity.

In historic centres, this issue becomes even more sensitive, as urban fabrics are often subjected to densification pressures, uncoordinated individual interventions, and modernizations that fail to respect the original character. Thus, fences and enclosures can act as elements of identity (when they respect traditional materials and frontage geometry) or, on the contrary, as sources of visual fragmentation and loss of heritage value (Lynch, 1960).

The present project aimed to investigate the potential of these edges to contribute to the regeneration of the urban fabric through landscape design. The working hypothesis was that transforming opaque fences into green boundaries and creating more permeable transition spaces could improve not only the visual image but also the pedestrian experience – reducing the sense of fragmentation and strengthening the identity of the historic area. Thus, the analysis focused not only on the aesthetics of fences but also on their impact on circulation flows, the visibility of public spaces, and the coherence of frontages.

The project was carried out over the course of one academic semester and followed an integrated approach in four main layers:

1. **Delimitation of the study area.** A heritage-value area from Craiova's historic centre was selected, with mixed street frontages and varied enclosure situations.
2. **Aesthetic and perceptual analysis.** Fence typologies (masonry, metal, wood, temporary panels), materials, heights, and degree of visual transparency were inventoried. Through photography and mapping, discontinuities and visual barriers affecting pedestrian perception were identified.
3. **Proposal development.** Student teams designed solutions to transform opaque fences into green boundaries, using hedges, planted panels, and pergolas. In addition, they designed small squares and pocket parks for available plots, introducing vegetation with ecological and aesthetic value.
4. **Impact assessment.** Proposals were analyzed against criteria of sustainability, visual coherence, and integration into the built landscape.

RESULTS AND DISCUSSIONS

The application of the proposed methodology led to the shaping of a pedagogical pathway through several distinct stages, in which the four fundamental notions — elements, composition, user, and scale — were turned from theoretical concepts into operational tools.

The first result was the site study, a layer involving a thorough reading of the physical and social context. Students were taught to map topography, vegetation, existing circulation, microclimate, and visual relationships, as well as to record layers of memory, cultural identity, and potential conflicts of use. This stage served as an analytical foundation for all subsequent decisions, confirming the importance of a systemic, interdisciplinary approach to the site (Moraitis, 2024).

The chosen study area included streets with special cultural significance: Bărnuțiu, Kogălniceanu, Frații Buzești. This area, located near the *lipscănie* — the city's former commercial core — consists of former high-class residences with great architectural value. However, the absence of clear regulations led to abusive land fragmentation, lack of local authority control over the aesthetics of boundaries, and neglect of the potential of public space.

Figure 1. The studied area – plan and street view

Next, the methodology generated the establishment of connections and connectivity, through which students-built networks of spatial relationships: main circulation axes, meeting nodes, secondary routes, and visual relationships that give coherence to the ensemble. Through graphic exercises and models, they explored principles of permeability and accessibility, encouraging thinking oriented toward spatial continuity and experiential sequences (Hillier & Hanson, 1984).

The studied area connects the central pedestrian zone with Romanescu Park. Significant urban landmarks are the Church of the Holy Archangels and the Metropolitan Church Institute. Moreover, the area hosts several cultural and educational attractions – the Museum of the Book and Exile and the Children's Palace. Currently, accessible routes are strictly tied to vehicular circulation, and many areas are blocked by car parking. However, the study revealed many options for creating small-scale spaces to ensure continuity of pedestrian routes and green arrangements.

A key stage was the analysis of the urban image of the site, particularly its edges, intersections, and landmarks. Drawing inspiration from Kevin Lynch's theory of the city image (1960), students identified recognizable elements that structure the collective perception of space: built frontages, visible corners, orientation points, major perspectives. Through this process, the projects gained urban anchorage and relevance for the collective memory of the place.

The area is distinguished by built frontages of exceptional architectural value, in neo-classical or neo-baroque style. The buildings conform to the size and proportions typical of the upper-class residential typologies of the late 19th century — high ground floors, one- or two-storey heights, generous areas, and impressive roof geometries. However, considering that continuous frontages are found only along Kogălniceanu Street, while the rest are isolated or paired buildings, we observed a total neglect of the landscape potential of fences.

Another result was the definition of functions, where spatial composition was directly tied to the needs of identified users. Areas for sitting, play, transit, and events were configured to create a sequence of spaces with varying degrees of intimacy and activity. This phase put into practice the principles of empathetic urbanism, ensuring that space responds both to individual and community needs (Sandman, 2018; Çelikyay, n.d.).

In the final stage, the methodology led to clarifying the meaning and expression of space. Aspects such as materiality, texture, colour palette, and the "vibration" of the ensemble — in terms of atmosphere, how space invites use and evoke emotion — were explored. This phase included a strong discussion on criteria for avoiding kitsch: selecting authentic materials, controlled use of ornamentation, and maintaining a clear compositional logic (Eco, 1989; Dorfles, 1969). The result was a series of projects that not only solved functional requirements but also conveyed a story, a mood, and a recognizable identity, demonstrating that the meaning of space is inseparable from its visual and tactile expression.

Field analysis highlighted several dysfunctions that affect the coherence of the urban image of Craiova's central area. Street frontages proved to be heavily fragmented, with great typological diversity in fences, in terms of material, colour, height, and transparency. In some cases, fences were fully opaque and built from discordant materials (corrugated sheet metal, OSB panels, unfinished masonry), creating a "barrier" effect that breaks the visual relationship between public and private space. In other cases, fences were too tall in relation to the human scale, reducing the sense of safety and making the pedestrian space less inviting. We found many fences that were destroyed or vandalized, and this discourage pedestrian activity.

The chromatic analysis revealed the absence of a unified visual language: fence colours ranged from bright, strident tones to faded or stained surfaces, accentuating the sense of visual chaos. Material-wise, heritage wrought-iron fences coexisted with temporary or improvised enclosures, leading to a fragmented image and loss of architectural identity. This lack of coherence is problematic in historic centres, where the continuity of frontages is a key part of urban character.

Based on these findings, students' proposals focused on three main directions:

1. **Increasing visual transparency by replacing massive fences with vegetated systems**
   Many of the solid fences were proposed for removal or transformation by integrating living hedges (e.g., *Carpinus betulus*, *Ligustrum vulgare*), vegetated panels with climbing species (*Hedera helix*, *Parthenocissus quinquefolia*), or modular combinations of metal elements and vegetation. This approach not only improves the visual relationship between public and private space but also reduces spatial segregation, generating a friendlier perception for pedestrians. Green fences also bring microclimatic benefits

(temperature reduction through evapotranspiration, dust and noise absorption) and contribute to biodiversity.

2. **Introducing native species and perennial shrubs to ensure a unified image.**
   Native species resistant to the local climate and with high ecological value were proposed. Selecting perennials and plants with attractive texture and colour year-round aimed to provide visual continuity and avoid the disordered appearance of seasonal vegetation. Planting schemes were designed to ensure year-round interest — spring flowers, summer foliage, colourful fruits in the cold season — making fences not just functional elements but visual highlights.
3. **Designing urban squares and social spaces**
   Residual and unused plots within the study area were transformed into micro-public spaces — small squares, mini-plazas, or pocket parks. These were conceived as social nodes, in line with Kevin Lynch's principles regarding nodes in the urban network. By introducing urban furniture, street trees, and permeable surfaces, these interventions created opportunities for meeting, resting, and social interaction for neighbourhood residents.

The anticipated effects of implementing these proposals include a significant improvement of the visual perception of the area, reduction of the isolation effect created by opaque fences, and increased attractiveness of public spaces. Pedestrian comfort is expected to improve, and the use of green spaces to grow, potentially leading to the social revitalization of the neighbourhood.

Figure 2. Comparative image between city image without landscape regulation (a. Craiova) and with landscape regulation (b. Geneva)

From the perspective of urban image, the proposed interventions would contribute to creating visual coherence using unified materials, colours, and plant textures, restoring the continuity of street frontages and clarifying the boundaries between public and private space. By integrating vegetation as a design element, fences are no longer perceived only as barriers but as structures with aesthetic and ecological value, capable of supporting a healthier and more attractive urban landscape.

Ultimately, the project demonstrated that an approach based on contemporary urban and landscape design principles can transform property boundaries from elements of separation into elements of cohesion, generating benefits for both the community and the built environment. This transformation has the potential to be replicated in other historic centres, constituting a model for intervening in fragile urban fabrics.

CONCLUSIONS

The application of the proposed methodology has demonstrated that a well-structured pedagogical approach can transform the theoretical notions of landscape architecture and urban planning into operational tools directly applicable in design practice. The successive stages – from site study and contextual mapping to the definition of functions and the clarification of spatial expression – allowed students to approach the central area of Craiova from an integrated perspective, grounded in data, collective memory, and spatial experience.

The analysis revealed major dysfunctions: fragmented street fronts, incoherent fences in terms of materials and colours, a lack of visual transparency, and an unhealthy relationship between public and private space. These findings justified interventions aimed at restoring visual coherence, increasing spatial permeability, and improving the quality of the pedestrian environment.

The proposed solutions – the introduction of vegetated fences, the use of local perennial species, and the creation of urban pocket squares – aim to transform residual plots into social nodes and to deliver ecological, microclimatic, and social benefits. Through these interventions, fences are no longer mere elements of separation but become active components of the urban landscape, contributing to the identity and attractiveness of the area.

Overall, the results indicate that a coherent strategy, based on the principles of empathic urbanism and on urban image theory, can have a significant impact on the collective perception of space and on the quality of urban life. The proposed model is replicable and can serve as a reference for urban regeneration projects in other historic centres, where the balance between public and private space requires recalibration.

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