URBAN REGENERATION THROUGH THE (RE)MODELLING OF MOBILITY, IN “CAROL PARK AREA”

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Abstract. The study outlines a concept of urban regeneration for an area with a valuable urban and architectural heritage, based on an integrated policy of reshaping mobility aiming at harmonization of accessibility and quality of living objectives, rehabilitation of public spaces - streets and squares, stimulation of building use conversions which, at their turn, generate financial resources for the renovation of the historic buildings.

Key words: urban regeneration, mobility remodelling, historic area, architectural and urban heritage

1. Introduction

1.1. Thematic area

Urban regeneration in areas with valuable urban heritage is a concern that generated urban operations with positive results in many European cities, especially in their old central cores, but also in other areas with ancient urban tissue and monuments.

The concept of “urban regeneration”, generally, and particularly in historic areas, transfers buildings rehabilitation issues in an integrated perspective, that of (re)dynamization of the urban environment as a whole system, through and for all its components: physical (built and natural), economic, social.

In “Investing in Heritage _ A Guide to Successful Urban Regeneration”, Report of INHERT European project (INHERIT, 2007), that studied the heritage led regeneration (urban regeneration with investment in heritage, for its protection and valuation) identified different sort of its benefits:

- **Area benefits** such as improved profile, a safer environment - the maintenance and improvement of ancient buildings, and their settings in terms of open spaces and the streetscape
- **Economic benefits** in terms of jobs, businesses and economic growth- in relation to finding new uses for old buildings (commerce, services etc.) and the business benefits of overall environmental and touristic attractiveness improvements
- **Community benefits** such as local pride, increased community spirit, - (re)highlighting some benchmarks of the area through the enhancement of key distinctive buildings with regard to the local history and culture
- **Individual benefits** such as jobs, various opportunities, etc.
1.2. Study opportunity and method

The study of Carol Park Area started with the question: "Why an area with such a valuable and complex urban and architectural potential is in decline and threatened by an insidious process of destroying its unique character?"

Following a comprehensive analysis, the response-diagnosis revealed several major causes (see part 3) which mostly, directly or indirectly, in whole or in part, are caused by the current form of mobility, dominated by excessive auto-mobility, with aggressive insertion in the valuable urban tissue, unaesthetic and intensively space consuming.

Consequently, the concept of urban regeneration drawn for this particular area of Bucharest was centered on a proposal of remodeling its urban moving system, which is presented in this article.

2. Location, characteristics and the potential of the area

The studied area, called "Carol Park Area" (Fig. 1), has approximately 200 hectares, and it is bounded by Coșbuc Blvd, Unirii Blvd, Dimitrie Cantemir Blvd, (Calea) Șerban Voda Str., Viilor Str. (including the future junction with the new NS arterial: Buzești-Berzei-Uranus). It is mainly a residential area, with an urban tissue largely constituted in the late nineteenth century and in the early twentieth centuries (Fig. 2), with some interwar additions. A few recent new buildings – significantly different from the character of the area, as dimensions and architectural expression - indicate a speculative, uncontrolled replacement process of the old built patrimony, for an intensive and excessive exploitation of the central location (Fig. 3).
Fig. 3. New built additions, significantly different from the character of the area

The studied area has a very complex and important, but unexploited, potential:

A. a valuable architectural, urbanistic and historic heritage, consisting of a large number of monuments - categories A and B, of national and local interest - contained in the perimeter of 14 protected areas: Carol Park, Antim Monastery, Patriarchal Cathedral, Filaret Station, Roman Arenas, Astronomical Observatory, National Technical Museum, the church of St. Spiridon, Zodiac fountain (designed, among others, by the architect Octav Doicescu), Flower Market, Gramont plots etc. Many of these are citywide cultural and recreational targets, having also a great potential to become very attractive touristic objectives (Fig. 5, 6, 7, 8).

B. topological centrality (the area is located close to the historic center core) but not supported by the "functional/building uses centrality" that the area deserves

C. special topography (high cornice of Dâmbovița valley and the “hill of the Patriarchal Cathedral”)

D. the vicinity of People’s House (the Palace of Parliament – Fig. 10) which is a major tourist attraction of the city, the most visited, according to statistics

E. A picturesque ambience of the area at a human scale (Fig. 9).

Fig. 4. Carol Park (1900 -1906) – the Mausoleum, the recreational lake and “the Giant”, statue of Dimitrie Paciurea

Fig. 5. Antim Monastery
Fig. 6. Astronomical Observatory

Fig. 7. Filaret Station (source of the photo: orasulluibucur.blogspot.com)

Fig. 8. Roman Arenas (photo - 1906)

Fig. 9. People’s House
(foto: Toni Salabasev/Mediafax Foto)

Fig. 10. People’s House
(foto: Toni Salabasev/Mediafax Foto)

Fig. 9. Urban area on a human scale, with picturesque ambience
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3. Current dysfunctions

The main causes of this area’s physical and functional decline, of not reaching its huge potential, are the following:

a. the physical and functional separation (“cutting”) of the area from its urban surroundings, especially to the north and the east limits of the area – partially transforming it in an urban enclave - consequence of Unirii Blvd piercing and of the construction of high buildings continuous fronts along Dimitrie Cantemir Blvd and Unirii Blvd (Fig. 11, 12).

b. the physical and functional split of the area from the central historic and touristic core of the city (physical barriers – continuous fronts of high buildings, the suppression of two ancient bridges: Mircea Vodă and Rahovei, also known as “Calicilor” bridge (Fig. 11).

c. the low and uncomfortable pedestrian accessibility (narrow sidewalks even on main access roads, uncontrolled parking of cars on sidewalks and/or on roadways – Fig. 13).
d. the poor quality of public spaces largely caused by the unconditional adaptation of the whole city - including the studied area - to the excessive demands of automobility, which caused a high consumption of terrain and public space by moving and stationary vehicles (Fig. 14).

e. the absence of high standard economic activities - trade and leisure services (which, along with the many historic buildings of cultural and recreational interest, could constitute an attractive "touristic cluster")

f. the absence of touristic and promenade routes - pedestrian streets and public squares with high landscape value which could relate in a "system of attractors" the many points of interest scattered in this area.

g. additions of new buildings significantly different from the character of the area, as dimensions and architectural style (Fig. 15), and/or generators of important motorized flows, as, for example, the headquarter of Distrigaz.

4. Proposals for Carol Park Area urban regeneration – physical rehabilitation, based on the remodelling of mobility, with economic and social revitalization outcomes

The present paper proposes a concept of integrated urban regeneration (physical but also economic and social renewal) of Carol Park area, based on the remodelling of mobility and of the public space, so that the new configuration and ambience of streets and squares lead to a building-use (functional) restructuring along some of the streets. The location of new activities with added-value (cultural, leisure, touristic services of higher standard) will attract and provide the financial resources that can enable the restoration of the ancient and beautiful built heritage, with high architectural and ambiental value, which has the important potential to become an attractive urban resource, profitable for the area and the whole city if it is intelligently managed.
This could be a chance to preserve the existing urban heritage which is now under the pressure of being replaced with new buildings that use intensively and excessively the terrains with high centrality and value, in this way altering and undermining the character of that urban area with special, composite value.

4.1. What? Objectives

The objectives of this integrated, strategic concept of urban regeneration are, by categories, the following:

A. Accessibility and mobility
- Restoring and improving some of the physical relations of the area with the urban core of the city and, thus, re-designing the larger historic central area of the city
- Restructuring the modal shift of mobility within the area aiming at the reduction of individual motorized travels (auto-mobility) and encouragement of "soft", environmentally friendly pedestrian and cycling travels, on the principle "the right mobility in the right place" (In urban areas with historic urban tissue, with old small road system -structured in a period...
when the level of motorization was almost inexistent or very low -“the right mobility” is that with the lowest average of automobility and of the urban space consumption by moving and stationary vehicles, based on alternative, environment friendly travel modes: pedestrianism and cycling, which have a low space consumption and don’t pollute. In some cases is also preferred the use of motor-cycles - as motorized alternative- but this travel mode has the inconvenience of generating noise).

- Improving the accessibility of the area, particularly the pedestrian accessibility (returning the public spaces to pedestrians and improving its environmental quality and safety; potentiating the promenade character of roads, with priority on trails linking the main points of cultural and touristic interest of the area)
- Limiting motorized transit traffic within the area – main source of discomfort of urban living in the area
- Harnessing opportunities and managing the threats that the new urban axis NS Berzei-Uranus-Buzești will bring to the area.

B. Public space
Recovery of important surface areas - public space resources currently "consumed" by cars - generates opportunities for:
- Reconfiguration and redesign of public spaces - streets and squares - with a emphasized concern for the urban landscape and pedestrian’s comfort (including the good accessibility for people with physical handicaps)
- Creating an attractive (spatial and functional) context for recreational, commercial, touristic trails, to: 1. better relate the many historic, cultural, recreational sites, in a complex touristic, commercial, recreational "cluster"; 2. better relate Carol Park area to “People’s House” - main touristic attractor of the city; 3. better connect Carol Park area to the historic core of the city.

C. Building-use conversions and rehabilitation of the built environment aiming the following effects:
- Creating an attractive and prosperous business context in a beautiful urban environment with touristic and cultural vocation can make the area “profitable”, attracting activities (trade and services) with economic added value and, thus, significant financial resources for renovating the valuable built heritage. Consequently, the pressures of demolition which threaten the ancient buildings will be reduced and the interest on preserving and harnessing the architectural heritage as urban resource will increase. The whole ambience of the area and the quality of living will be improved.
- Limiting the negative impacts that could bring in the area the new NS Buzesti-Berzei-Uranus urban axis of the city (primarily the replacement pressure on the historic buildings) through the development of an intermediate "green" space, on Dâmboviţa river cornice, playing the role of a "barrier" for the expansion of the urban restructuring process within the most beautiful part of Carol Park area.

4.2. How? Programs and Projects
The achievement of these goals rely on a sum of programs and projects, mainly related to the reorganization of mobility:
A. Organizing a “by-pass”/detour road system for the through motorized traffic crossing the area (for example for that on Regina Maria Blvd., between Regina Maria Square and Unirii Square). A segment of the future Uranus-Buzesti-Berzei axis and Viilor Street Road can constitute the west part of this by-pass road system.
B. Creating the conditions for modal shift on the perimeter of the area, so that the shape of mobility change within it,
mainly reducing automobility. A network of simple or complex modal interchange points/hubs relating park&ride with public transport stations, with bike parkings and facilities, should be organized at the intersections of the by-pass road with the roads penetrating the area. Intermodal hubs/connections should be organized:

- at the intersection of Buzesti-Berzei-Uranus arterial axis with Cosbuc Avenue - intermodal complex hub (park & ride, tram, bus / trolley and a future metro station), accessibility core of a possible and probable future urban pole;
- at the intersection of Dimitrie Cantemir Blvd. with Gheorghe Sincai Blvd - “Tineretului” intermodal hub
- at Regina Maria Square – Public transport stations and park&ride. A new metro station is stated for this location in the long-term strategy of Metrorex (the Authority for underground passenger transport in Bucharest and its metropolitan area)
- at the intersection of Marasesti Blvd. with Cantemir Blvd – a simple intermodal pole; it would be appropriate the insertion of a new metro station in this location, between Unirii and Tineretului stations (between which there is a great distance, approx. 1.5 km) that would increase accessibility to Carol Park and to its entire surrounding area;
- Filaret (former) railway station has the vocation of an intermodal hub, as accessibility core of a commercial and/or cultural urban centre (it is also proposed as station for TER – urban train for the metropolitan area of Bucharest).

- C. Construction within the area of underground and / or aboveground residential parking places, preferable in multistoried parking buildings (with less consumption of urban space) for residents and activities located in the area, with higher tariffs for the visitors than those of the perimetral park &ride, but with preferential tariffs for residents. Underground car parks should be built, for example, at the entrance to Carol Park (the one on Marasesti Blvd.), in Regina Maria Square (park & ride, being on the bypass road system).

D. Reduction of above-ground parking places number and areas, in public space, increasing their tariffs, while also implementing physical and financial measures for discouraging and prevent on-street illegal parking (fines, penalties, installation of street-bollards etc.)

Fig. 17. Transformation of Filaret Station in intermodal hub and the rehabilitation of the public space in its vicinity. Illustrations by students of first year MMU and MPU master degrees, 2011-2012.

- E. Organizing pedestrian routes that provide more comfortable and attractive access to cultural and recreational points of interest of the area, thus better related in a touristic cluster, and to shape an attractive urban and economic environment for commercial and leisure activities with added-value
  - Transforming 11 Iunie St. in pedestrian way, served by tram, eventually with “green track” (Fig. 18, 19).
Extending and improving the pedestrian facilities on Regina Maria Blvd. between Regina Maria Square and Unirii Square, avenue along which there is a beautiful built urban heritage.

Partial pedestrianization of George Georgescu St. (segment of the former Rahova Avenue, in extension of which Central PIDU-Integrated Urban Development Plan-for Bucharest proposes a modern restoration of the old "Calicilor" (Rahova).

F. Organizing a pedestrian area including the main pedestrian routes and some of the smaller streets contiguous to them.

G. (Re)designing pedestrian or mostly pedestrian squares

Libertății Square, one of the most important places in the area, has to be rearranged (Fig. 14, 20), with an important emphasis on pedestrian facilities and on its esthetic-landscape qualities.

A pedestrian square should be designed on the extension of 11 Iunie pedestrian route, across Unirii Blvd., at the intersection with Apolodor St., there where the pedestrian route changes its direction to (Calea) Victoriei Ave.

A totally or mostly pedestrian square at the crossroad of 11 Iunie St. with Regina Maria Blvd.

Fig. 18. Transforming 11 Iunie St. in pedestrian way, served by tram (eventually with “green track”) – a. additions to Central PIDU proposals (Central PIDU Bucharest, 2012; Idei urbane, 2013); b.c.d. - illustrations by students of first year MMU and MPU master degrees, 2011-2012.
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H. Reconfiguration of streets and squares for the redistribution of public space, with a larger share allocated for pedestrian facilities (expansion and improvement of sidewalks, reduction of aboveground parking, reduction of vehicle traffic lanes, pedestrianizations and semi-pedestrianizations).

I. Creation of a "green urban corridor" on the cornice of Dâmboviţa River in which can be organized a promenade and touristic trail - with a structuring pedestrian route and a bicycle trail– linking Carol Park to the House of People and Izvor Park.

This ecological corridor has to be an “intermediate space” between the coherent historic urban fabric - that has to be preserved and restored- and the area along the new urban Buzeşti-Berzei-Uranus axis that, predictably, will be renewed with a strongly restructuring of its morphology. The green corridor has the role to prevent the extension of the restructuring pressure.
on the valuable historic urban heritage. The bicycle trail can be extended, in both directions, to Cismigiu Park and to Văcăreşti Park, via Tineretului Park (a suite of parks that are in contiguity). 

J. The improvement and/or remodeling of streetscapes (new quality and compositional harmony of landscape components: urban furniture, pavement, public lighting, vegetation, signage etc.)

K. Building usage conversions, that is expected to occur through private sector initiatives, for some buildings with historic and architectural value (Flower Market, Match factory, Electromontaj, Filaret Station etc.), and for many of the buildings located along the (proposed) pedestrian streets.

I. Reconstruction of the bridges that have been suppressed (Rahova -“Calicilor” and Mihai Voda) - as also proposed in PIDU Central Bucharest- that could improve the physical connection of the studied area with the historic central core of the city (Fig. 23).

M. Organizing a good and attractive Public Transport to provide a good accessibility of the area from the whole city, but also a good pedestrian accessibility.
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to TP stations, inside the area (station within 400-500 m of any building):
- Preferential option for electric, “clean” transport, structurant, and with high landscaping potential (tramway, metro)
- Public Transport stations well related with the cultural and touristic “attractors” and traffic generators of the area
- Addition of new metro stations (for ex. on Mărăşeşti Boulevard at the inter-section with Cantemir Blvd; at the inter-section of Buzeşti-Berzei-Uranus axis with Coşbuc Boulevard and Vine Road, etc)
- It is also possible to organize a small capacity local transport within the area once the touristic attractiveness is achieved (mini-electric-buses etc.)

N. (Possible) future implementation of bicycle public facilities - infrastructure and public rent services- for example as "Velib" in Paris, having stations with good pedestrian accessibility (located at distances of 300-400m), and with "bike & ride" parkings in the perimetral intermodal points.

O. Limitation of speed for motorized traffic at 30km/h, within the area - setting up a “Area 30” limiting traffic regime.

5. Conclusion - argument

Some recent building-use conversions of located on 11 Iunie St. and on the streets in its vicinity (retail commerce, clubs, entertainment service etc.), prove its vocation of leisure and commercial route, and highlight the high potential of this street to become a pedestrian way (Fig. 24).

Public investments in the implementation of reshaping mobility and of its infrastructure programs, so as it is proposed in the present concept, are likely to enhance the value and attractiveness of the area, to "worthwhile" it, trigging a desirable urban regeneration dynamic with private economic resources. This process could be a real chance for the restoration of the beautiful built heritage, valuing the elegant and picturesque ambience of the area as a cultural resource with economic value.

Some illustrations of the concept have been done by first year students (2011-2012) of the master program: MMU (Urban Mobility Master program- coordinator: Ph.D. Associate Professor Arch. Mihaela Negulescu) and MPU (Urban Project Master program - coordinator: Ph.D. Associate Professor Tiberiu Florescu).

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Fig. 25. Concept of urban regeneration through the mobility (re)modeling, in Carol Park Area
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