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URBAN DESIGN FOR IMPROVING THE QUALITY OF LIFE IN THE RESIDENTIAL NEIGHBORHOODS

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ABSTRACT

The town of Pitesti lies at the confluence of Arges and Doamnei Rivers, on the coordinates 44*51'30" wide, latitude North, 24*52' long East, in Southern Romania. The objective of the study is the rehabilitation of urban infrastructure in Pitesti, targeting public space areas included between the buildings, bounded under study as follows: CENTRAL area, CALEA BUCURESTI area, TEILOR MARASESTI. The total area of intervention was 36,66 ha (48,17%) from the 76,102 ha (100%) studied. Territorial analysis focused on three systems: accessibility and mobility (to improve the existing network infrastructure, traffic and pedestrian safety); environmental systems and ecological networks (conservation of natural resources and environment and to create an ecological network, by the strengthening of existing ecological corridors); residential systems, services and urban centrality (i.e. balanced distribution of functions, meaning to locate central functional polarities allowing neighborhoods to be self-sufficient for basic needs of residents). The principles that are developed in the present paper and which constituted the premises of the planning process involved three levels of approach. AT THE CITY LEVEL, the project aimed at pursuing a

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constant coherence in the distribution of services and functions inherent to primary and secondary urbanization, spatial and formal coherence of mobility and accessibility, networks between different areas, expansion and achievement of an interconnection between ecological networks. AT THE ZONE LEVEL, the aim was to improve and streamline flows in networks linking districts and local areas in close proximity. It will also follow a consistent implementation and harmonization of urban functions and services in the area, taking into account the ecological networks and providing accessibility and mobility. AT THE SUBAREAS LEVEL, the aim was to improve the mobility and environmental quality of urban spaces, i.e. to create functional zoning and demarcation of their correct spaces, to rehabilitate planted and paved surfaces.

Key words: Urban Infrastructure Rehabilitation, Public Space Identity, Socialist Residential Places.

Introduction

In September 2008 trough Government Resolution no. 998/2008, town of Pitesti was appointed by the Romanian Government to be an urban development pole. The mentioned legislative act recognizes the important role that the town of Pitesti has in the regional context and it appropriates an important amount of money for the public investments meant to enhance the potential for economic development of the town. The money are offered by the EU and The Romanian Government trough the Sectorial Operational Program 2007-2013 ax 1.

In order for the requirements to be fulfilled, the City Hall of Pitesti contracted a group of projects that is composed by Integrated Plan for Urban Development (IPUD) and Financing Application for the projects identified in IPUD, projects that will be carried out in the most important area.

In the South-Muntenia region, the town of Pitesti is the second centre of regional importance being considered a national communication core.

Taking into account the importance and the status of the studied area in the town, following the specific studies, it has been agreed that the optimal variant is the one in which the interventions are meant to improve:

- the quality of the environment
- the quality of the urban comfort by following the mentioned aspects from above
- the urban indicators like : parking lots/ number of inhabitants or the area o planted areas/ number of inhabitants
- accessibility and permissiveness for pedestrian traffic
- providing access for the physical disabled persons

- functional diversity
- the flow and permissiveness for the cycle paths
- the creation of ecological corridors (soundproofing trough green curtains, cutting down air pollution)
- collecting, conservation and storage of the waste material
- the quality of ambient sights by: conceiving major axis of visual compositions that lead to centers of major interest that build in real spaces of social communication distinguished by high architectural and surrounding conduit
- architectural lighting dispersed discrete and efficient in all the social gathering spaces and on pedestrian trails
- Adequate signaling that puts out the obstacles between pedestrian trails ant intervention spaces.

Planning Principles and Different Levels of Approach

At the urban value, traffic optimization was made by replacing light stops with roundabouts, taking out the heavy traffic from the central area of the city and proposing the internal rotation of the vehicle traffic in favor of pedestrians. (See Fig.1)

Table 1. Parking lots situation

PARKING LOTS BY AREAS :

	CENTRAL	BUCURESTI	TEILOR M.	EXERCITIU	TOTAL
EXISTENT	311	161	151	1552	2175
PROPOSED	359	427	206	2420	3412

From the table above it can be noticed that the parking lots rose with 1237 units, so the ratio of parking lots/number of persons is closer now to the EU regulations in the Bucuresti and Exercitiu areas (See Table 1).

In order to free the central area from traffic, the project aimed at creating a new circulation lane, further away from the city center. This also allows a better connectivity between neighborhoods situated in the proximity of the central area (see Fig. 1 a).
Cycling lanes were developed on both directions of the town, making sure that they are separated from the car traffic by a green lane and from the pedestrian traffic by visual signs and adequate infrastructure.

Under the ecological aspect it was intended the creation or strengthening up the existing networks but mostly the planning of new continue elements that consists in providing green barriers in the olfactory, sound or car exhaust polluted areas - barriers built mostly around public services functions such as kindergartens, schools, hospitals, residential areas and in the areas where the garbage is collected.

Although the proportion between the built-up areas and the unincorporated areas is subunitary, the town of Pitesti has important green areas, although most of them are not set up to offer the population active relaxation and recreation facilities. In the town of Pitesti the green area designated for one inhabitant is 20 sq meters that is under the recomandation from de EU which is 26 sq meters / inhabitant.

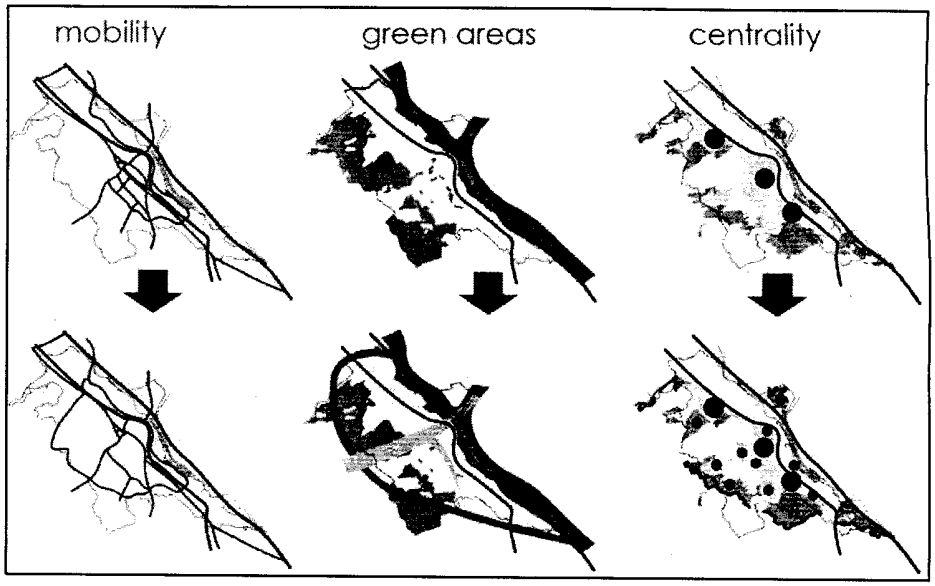

Fig 1 Existing and proposed traffic. Figure 1 b: Existing and proposed ecological systems. Figure 1 c: Existing and proposed urban facilities and centers of interest.

Nowadays the town of Pitesti has two major green areas situated in the East and West extremity of the city: Arges river corridor and the Trivale forest. The project proposed a link on that direction but also the fluidization on the North-South direction by assuring a green networks system (see Fig. 1 b).

To enhance the visibility and the communication between central spaces and zonal areas the project proposed the decrease of green or architectonical barriers: trees or stalls.

Regarding the urban facilities, the spaces identified as subject to rehabilitation lack a sense of identity, have few or no recognizable features and do not create a comfortable environment for community life. There are four major centers which cumulate public functions disposed on the north-south axis of the town (see Fig. 1 c). The planning principles were meant to ensure the development of new and existing centers in order to diversify and increase the facilities for all inhabitants (see Fig. 2).

Fig 2 Global strategy.

At the zone level, the Central Zone, Bucuresti Zone, Teilor-Marasesti Zone and Exercitiu Zone (see Fig. 3), the existing situation presents a series of dysfunctions. There are no places for social gatherings, for leisure or recreation, nor are there any sport grounds.

Some playgrounds exist as well as waste collection points, but these are not well defined. Their improper aspect derives from the unclear definition of the urban functions : parking lots are mixed with planted or playground areas; waste collection points are incorrectly placed, in a state of decay, thus constituting a source of visual, hygienic and olfactory pollution (see Fig. 4).

The urban facilities were well distributed in the initial planning but the urban design does not support these intentions. There is no efficient public lighting, drainage is not well solved.

At the neighborhood level, the project aimed at improving and optimizing the traffic and creating relations between local networks and proximity areas (considering a 250 meter diameter area as a proximity area). Also, the intention of the project was to obtain a coherent relation between the different uses and services within an area respecting the ecological networks and assuring accessibility and mobility.

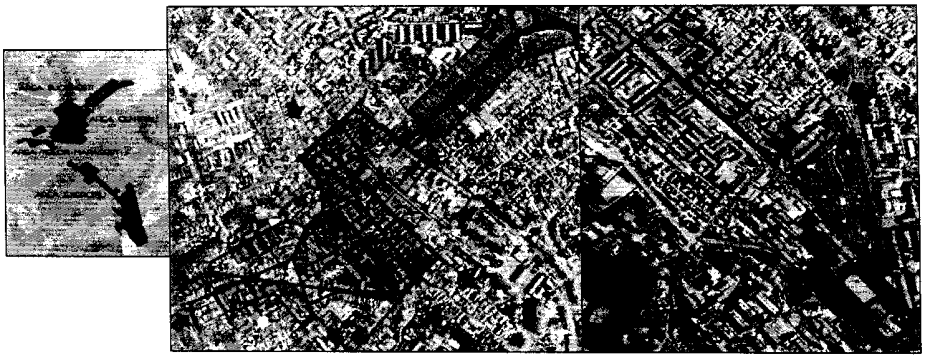

Fig 3 Zones and subzones.

Fig 4 Existing aspect of neighborhoods.

At this level, the project identified three major objectives. Firstly, an even distribution of urban facilities was followed by a better delimitation of these areas (playgrounds, relaxation and planted areas). Another objective was to assure security and visibility (architectural lighting, safe pavement surfaces). Thirdly, an ecological objective is to be achieved by reducing pollution caused by traffic and noise, paying attention to the use of natural material in the intervention.

In order to optimize the circulation for pedestrians, the physical disabled persons and cyclists, the big pedestrian area that functioned in the 80's in the Central zone is to be extended in adjacent areas so that the public space in which the most important cultural and administrative establishments are located may become more agreeable from the point of view of mobility. Also, the interest of pedestrians reverberates in the adjacent studied areas by implementing new facilities for recreation and events. Thus, for instance, behind the City Hall, a park and square are created allowing the creation of a multi-purpose area that can be used for open air exhibitions, concerts and other public events, organized by the City Hall and other institutions (a nearby cinema and art school). The major pedestrian axis North-South developed on the East-West direction in the Bucuresti street area becomes an only pedestrian alley, on half of it's length, following the idea specified above (see Fig. 5).

The physical disabled persons dispose of inclined planes at street crossings and at the accesses in institutions.

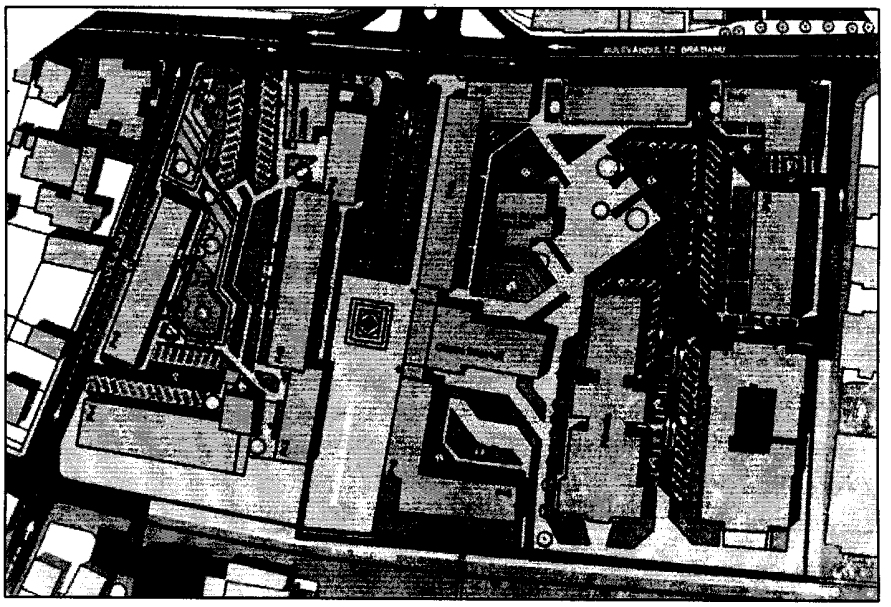

Fig 5 Proposal for "Central 5". Plan.

At the subzone level, the intention was to further develop the mobility and environmental quality of urban space. Each zone was divided in several subzones: five for the Central zone, Bucuresti zone, Teilor-Marasesti zone and respectively, fourteen subzones for the Exercitiu neighborhood (see Fig.3). The present paper discusses only the first three zones with their subzones (see Fig. 6 a, 6 b, 6 c).

Several objectives were followed at this level throughout the project. The correct delimitation of spaces with different uses was to be achieved inside each subzone. Planted areas were to be rehabilitated and well connected while theme gardens were proposed in order to increase the level of participation of the inhabitants. Recreation areas were to be better defined and equipped, considering a differentiated level of use, for young children, and adults. These areas are to be well lit and easily accessible. The improvement of the pavement quality, whether destined for pedestrian or vehicle use was doubled by an effort to create coherent connections in the mobility network.

Choosing ecological materials for pavements, an increase by 38 percent in the ecological quality of the environment is to be achieved. Also in an ecological purpose, waste collection pints were to be reorganized and better equipped for a correct maintenance and visual impact. Architectural lighting and urban signaletics are used in a discreet yet sufficient manner – to insure safety and possibility of use at all times.

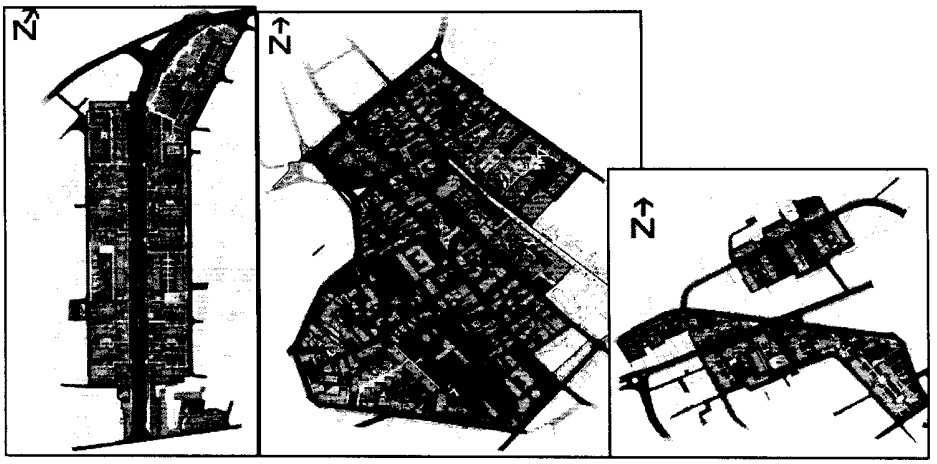

Fig 6a Proposal for Bucuresti zone. **Fig 6b** Proposal for Central Zone. **Fig 6c** Proposal for Teilor-Marasesti Zone.

Identity, Recognizable Features and Uniqueness

An interesting aspect to be solved within the project has to do with creating a sense of belonging and urban identity. Taken into account the limits of the intervention (no street furniture or planted elements are eligible, although these have been neglected since the years of the neighborhoods' construction) – a first direction of intervention was to use elements of urban design for multiple purposes. Pavement interventions were to better draw directions and compositions within the zones and subzones, considering the fact that the existing buildings were built on an orthogonal grid. The design opted for a diagonal grid in the Central zone, in Bucuresti and Teilor-Marasesti, respecting the established pedestrian traffic. The diagonal composition integrated the parking lots solution, thus unifying the design at ground level. In Exercitiu, the descending slopes, more accentuated in this area, created the premises for an orthogonal solution – following the natural topography.

This attitude, partly dictated by the site-conditions, marked the identity and difference between the specific zones. Another condition – this time imposed by the project theme's restrictions – was represented by the absence of proper built elements, which were not an eligible design category (they could not be supported financially form the project's budget). Street furniture was also not eligible. Thus, several elements were created in order to compensate these restrictions and still realize the project's objectives. Paving elements were raised from the alleys to separate different functions in the site as well as to create benches or street marks. Children's playgrounds also used these elements – diagonal compositions and discreet pavement elements – in order to create a playful atmosphere (see Fig. 7 a, 7 b).

Fig 7a, 7b Proposal for "Central 5".

Apart from the compositional factor, which tried to be innovative and dynamic, the identity of every specific zone was to be achieved through the use of materials. Apparent concrete was projected for sitting elements, separation borders, open air auditoriums and other elements in the alleys. Wood is considered a warm element, but due to its fragility is used only for sitting surfaces or pergolas. The quality of the pavement aimed at conceiving a permeable surface that would allow better ecological conditions (Fig. 8).

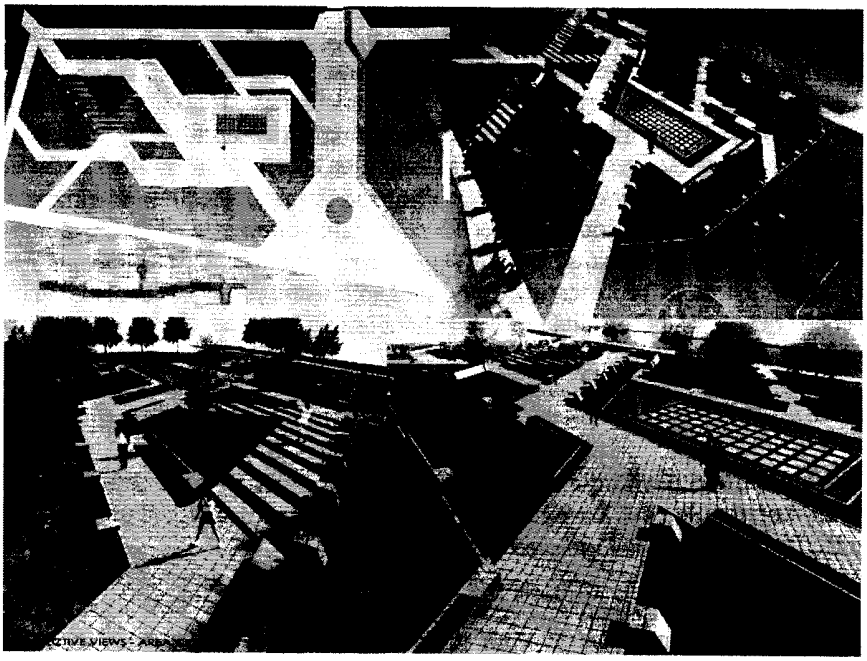

Fig 8 Perspectives and plan indications for proposals in Central and Teilor-Marasesti Zones.

Conclusion

The project which constitutes the basis for the present paper has been a challenge, both from the point of view of its dimension and complexity. The restrictions instituted in its requirements and the ambition of its aim, the limited time of its realization, the special conditions imposed by the competition as well as the numerous specialties involved (at least six), implying a large number of participants – the authors of this article representing only the architectural and urbanistic leading members of the team - represented other challenges that involved professionalism and responsibility.

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