

# **ASPECTS REGARDING SOME MALFUNCTIONS EXISTED IN THE GREEN AREAS FROM IASI CITY AND SOME PROPOSALS FOR THEIR IMPROVEMENT**

## **ASPECTE PRIVIND UNELE DISFUNCTIONALITATI EXISTENTE IN SPATIILE VERZI DIN MUNICIPIUL IASI, PRECUM SI UNELE PROPUNERI DE SOLUTIONARE A ACESTORA**

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*Abstract: The paper proposes to present some malfunctions in Iasi city urban green spaces design, analysed both at global and local level. The proposals regarding these malfunctions solution are about some measures to assure the green and leisure areas ecological necessary and also to equilibrate the territorial partition of the green areas for Iasi city.*

### **INTRODUCTION**

Situated in the contact zone between Moldova Plain and Moldavian Central Hilly Region, Iasi city and its territory is settled in a passing zone from silvosteppe to forest, characterised by a rich and various flora and spontaneous vegetation.

The bio-pedoclimatics and geographical conditions were also favourable for introduction of numerous ornamental species, local and exotics that print to the internal green areas different decoration aspects.

The actual square area of Iasi city is 3770 ha, from which the planted green areas, with unlimited access, with limited access and with specialised profile is around 826.8 ha (21.9%).

By green areas – in a short sense – we understand the total area of wooden plants (trees, bushes, lianas) and herbal plants (perennial, with annual blooming, grass) and with architecture elements, the porpoise being also an esthetical and utilitarian one (hygienic-sanitary, antipolluant, educational training, soil protection).

### **THE ANALYSE OF IASI GREEN AREAS FROM INNER AND OUTER CITY**

The analyse of the territorial repartition of the whole green area system, from inner and outer city, put in light the following aspects.

- The outer green system, based in principal from forestry plantations and forests, formed around the outer city a belt almost continuous, with the exception of east and west limits. The distribution and orientation of these areas it is in a strong connection with the slope relief characteristics, having in the North part of the territory a perpendicular orientation on Bahlui valley and between them a certain parallelism and a South having a parallel align with the valley. At South,

Southeast limit of the territory, the plantations and forests formed together with the green areas a massive and continuous forestry zone.

- The inner green areas, considering all categories, included the plantations from the residential areas with a low height regime and in principal those situated on slopes, could be considered into a mix system that combines “spot” system with “stripe” system (even if some areas do not present necessary elements of this system).

- Being imposed by urban necessities, by relief and climatic particularities or by the necessity of planted protections, the green areas of Iasi city assure a certain continuity, also between the categories of internal green areas and also between them and the external planted areas.

- The continuity of these liaisons it is realised also by direct contact, by aligns plantations of the street net or hydrographical net.

- The most representative continuity relation and penetration of the external green area in town, is made by “Copou area”, that begin in the North, north-west part of the territory making a direct connection of the Breazu-Ticau forest with the green area system of Copou.

Starting with the Viti-Viniculture Research Station Gardens and “Vasile Lupu” Institutional School Gardens in direct liaison with Ticau forest, the continuity is assured by Mihail Sadoveanu Alley alignment, that connect the above mentioned gardens with “V. Adamachi” Agricultural High School Gardens and Sadoveanu Museum and continuity with a strong planted area of Astronomical Observer, University of Agricultural Sciences and Veterinary Medicine and its campus. Followed by Gr. Ghica Voda alley, that joint Exhibition Gardens with Copou Gardens, who joint these ones with “Al. I. Cuza” University Gardens, Berthelot Square, French Council Gardens, Military Hospital, Academy House, University House, Army House, Mind Bank Tower and Youth Square.

From Eminescu Square the continuity is assured by Rapa Galbena Square, G. Muzicescu and Arcu streets alignment, Banu Church green area, Corso and Union Museum Square, Union Square area, Stefan cel Mare Boulevard, National Theatre Square, Town Hall Gardens, Trei Ierarhi Church, County Council, the park around Palace of Culture and Water-sport Leisure and Podu Ros Square.

Copou “green system” it is sustained on the west side by Botanical Garden plantations, the green area along Dumbrava Rosie Street, consolidated and protection plantations from Sipotel, Cazarmilor, Fagului, Belvedere, Toma Cozma streets area, plantations from Pacurari slope till Rapa Galbena, Arcu Square and Arcu Street lineament, Bicz Square and Theological Seminar, plantations from the west side of Palace’s terrace and Horia, Sf. Andrei streets lineament and on the east side by the plantations of Targusor Copou, Sararie, Codreanu Campus, Lascar Catargi, Berthlot streets lineament, face gardens of Faculty of Constructions, RTV headquarters, City Medical Clinic, Independence Square, Sf. Mina Church, Union Museum Square, Independence Boulevard lineament, UMF Square, Nature Sciences Museum planted area, Golia Monastery, Targu Cucu green area, Barboi Square, Elena Doamna and Anastasie Panu streets

lineament, Anastasie Panu and Ghica Voda Square, Sf. Lazar Street lineament and Sf. Lazar Square.

The whole system has an arrow aspect and its finish point is in Podu Ros area.

Out of Copou green system can be identified other green systems (Ticau-Brandusa, Ciric, Galata-Nicolina-Cetatuia, Bucium-Capita, Bahlui) but there are less coherent and important regarding the continuity.

## **EXISTED MALFUNCTIONS IN IASI'S GREEN SYSTEMS**

The aspect of malfunction was pointed and it's analyse was done at two levels:

1. global level (the unit territory of Iasi city);
2. local level (on 14 urban areas).

The malfunctions recorded at global level, Iasi city, represent in fact a sum of unachivements, errors and mistakes, from each urban unit (residential area) that composes the whole town and also the territory of the influence area.

If at residential area level this malfunctions could be in a way masked by using the neigh boroughs facilities (if it is possible) overloaded the certain function, but at town level the phenomenon does not permit this "transfer" function.

From the analyse of these malfunctions at global level we have:

### 1. Deviations from minimum standards:

a) In Iasi city no permanent green area has the request for a park. There is no town park and also neighborhood parks, the total necessary area of parks is around 216 ha.

b) Neighborhood gardens that lies in 3 territorial units: Copou, Nicolina-CUG (on its way to be given to the old landlords) and Tatarasi, represents only 13% from total necessary. The deficit is 219 ha.

c) Even if the squares are much better represented, are still missing in half residential areas: Bucium, Frumoasa, Galata, Moara de Vint, Obreja; Ticau-Sararie and in Pacurari industrial area. The existent squares represent 45.7% from the total necessary, the deficit being about 58 ha.

d) The shadow ways represents a special category of green areas, and it is hard to presume not to be present in each residential area, although they are missing in Moara de Vint, Obreja and Pacurari industrial areas. The necessary being covered in around 55% and the deficit is being 32 ha.

e) The face gardens cover 46.6% from the necessary and are missing only in Obreja area. The face gardens are in residential areas, but their spread is non-uniform and the deficit is around 58 ha.

f) The inner town entertainment areas in total square of 38.3 ha are insufficient, presents a low degree of equipment, the water quality are not in conformation with the hygienic-sanitary regulations and the planted areas are usually let down and even not beautiful.

### 2. Deviations from access regulations

These criteria resume at the fact that with the lack of parks and the existence of some gardens that have the imposed conditions just in some areas, the inhabitant's access is reported only at these areas. It is evident the fact that the accessibility is defavourable because:

a) The main streets and public transport have access only from one direction (from South) on Copou Boulevard that became at Iasi exit D.J. 282.

b) The public transport provided by trams, trolleys and maxi-taxi up to Agronomie square do not assure direct and easy liaisons with the areas from city limits.

c) The major walkways are directed on some areas: in the inner Copou area and from other areas to some green spaces (from Pacurari on small streets Toma Cozma and Manolescu, from Ticau-Sararie on Oastei Street and from town centre by Ripa Galbena square-Piata Tineretului-Copou Boulevard).

### 3. Low design and utilisation of the entertainment, sport and leisure areas

a) The equipped level is minimal;

-the gardens from Tatarasi, Trotus and Nicolina areas are not properly equipped (alleys, chairs, flower designs, basins, statutes, public lights are missing) a reason that only a part of the area's inhabitants visit them.

-in the same situation a part of the city squares (Piata Voievozilor square, Oancea square) can be found.

b) The state of function;

-some of the city green areas do not present event a define composition from landscape point of view and do not have a proper level of equipment that could determine a specific profile.

c) The physical degradation that is involved creates poor esthetical view of the city;

-bad execution: see the cases of Tatarasi gardens, Oancea square, Trotus garden.

-the lack of interest for taking care and maintenance of the green areas.

### 4. The necessary esthetical and ecological conditions are not provided:

a) The existence of some bad neighbours;

b) Degradations of the vegetal fund;

c) Inadequate crops.

## **PROPOSALS FOR THE MALFUNCTIONAL SOLUTION AT GLOBAL LEVEL**

1. The assure of the global level of green spaces and leisure in 1987 Barbu N., Ungureanu Al. and coll. said in "Iasi city geography" (page 283) that: "Taking in consideration only the inner city green spaces, Iasi city has around 900 ha of green areas, for one inhabitant resulting 30 m<sup>2</sup>."

The total area, occupied with any kind of wooden plants, 912.14 ha reported to the actual surface of Iasi city perimeter, about 3770 ha, represents only 24.19%, ¼ from the considered territory respectively.

The ecological necessary of green spaces and leisure areas for Iasi city, analysed through the greater and concerned CO<sub>2</sub> emanations, must double the surface of the planted green spaces and the increase the actual leisure area respectively. The leisure areas must be very close to city limits to be much more efficient from the ecological point of view and to assure an easy access of the population.

## 2. The equilibrium of the green spaces repartition on urban territory

Iasi city territory is structured on 14 residential areas, which also have at their turn specific conditions, due to the natural and building regime, the number and density of inhabitants. For this reason in each residential area results a total different situation, determined at the same time also by the occupied position in the town and by the general level of green spaces partition.

To equilibrate the green space partition we proposed:

-to create green spaces on free lands that are good for this purpose, both in inner city and limit city areas.

-the improvement on new basis of some green spaces and leisure areas that already exists.

-reconversion of some green areas from the town by modification of the actual functions those are inadequate.

## 3. The improvement of the protection functions of green spaces, leisure areas and natural reservations from Iasi city.

It could not be done a good protection of the environment without proper investments.

In 1995 in “Protected areas from Iasi county”, printed with the contribution of many Iasi’s institutions, there are many facts regarded Iasi county situation:

- a) 12 forestry reservations (901.2 ha);
- b) 3 floral reservations (61.8 ha);
- c) 17 gardens and pieces of gardens in county (58.2 ha);
- d) 16 gardens, squares and other green spaces in town (63.2 ha);
- e) 8 special protected perimeters around city (1197.8 ha).

For a more efficient protection function of the green spaces from Iasi city it must be impose that some laws, administrative acts and organisational measures to be made.

Also the urban regulations could represent another way to protect the Iasi urban green areas.

## CONCLUSIONS

1. The planted green areas from Iasi city occupied 826.8 ha, that represents 21.9 % from the total Iasi city surfaces.

2. If it is taken in consideration how is for each inhabitant of Iasi, it is concluded that for one inhabitant there are around only 30 m<sup>2</sup> , the fact that

situates Iasi somewhere at the middle of the list with the green areas from Romania's towns.

3. The existed malfunctions in green area structures from Iasi city are analysed on two levels: global level (Iasi city) and local level (residential area).

4. The malfunctions from the global level represent a sum of errors, lacks due to each residential area urban unit.

5. In analysing the malfunctions we take in consideration the followings: deviations from the minimum standards of green spaces built up, deviations from the access regulations, poor design and utilisation of the sport and leisure areas and also not providing the necessary aesthetic and ecological conditions.

6. Some proposals for these malfunctions solution viewed: to assure the global necessary of green spaces and leisure areas by a proposal of double increase of the planted surface in Iasi city, an equilibrated repartition of the green spaces on residential areas and the improvement of the protection function of the green areas already existent.

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