Aspects Regarding Urban Green Areas in the Post-Communist Cities of Romania. Case Study – The City of Timișoara

CĂTĂLINA ANCUȚA, CLAUDIA MUȚULESCU
Department of Geography
West University of Timișoara
4, B-dul. V.Pârvan, 300223, Timișoara
ROMANIA
ancuta.catalina@cbg.uvt.ro, claudia.mutulescu@cbg.uvt.ro
http://www.geografie.uvt.ro/personal/academic/ancuta/ancuta.htm
http://www.geografie.uvt.ro/personal/academic/mutulescu/mutulescu.htm

Abstract: - The intensification of the worldwide urbanization process brings to date the issue of urban green areas. In post-communist Romania, the cities, already having a high density due to the systematization projects of the communist regime, had difficulties in managing the pressure on space. The initiation of the debates considering the joining of Romania to the European Union brought to the interest of professional groups and the civil society the concern for such issues as life quality, housing quality. The paper presents a general quantitative evolution of the urban green areas in the cities of Romania in the last 20 years and illustrates the aspects of this approach by a case study of Timișoara, the second largest city of the country after the capital, Bucharest, and one of the first cities interested in controlling the evolution of this area by means of strategic planning policies, including spatial planning.

Key-Words: - urban green areas, post-communist cities, Romania, transition, urban planning, Timisoara.

1 Introduction

The urban lifestyle concentrates worldwide more than half of the Earth’s population and has an annual growing rate of approx. 2%. This tendency emphasizes the urban issue which includes, besides the increase of traffic, air pollution, housing crisis and increase of waste, the problem of the sometimes dramatic diminishing of urban green areas [18].

The urban environment in Romania concentrates 55% of the population in a number of 319 cities, of which 43 large cities (with a population exceeding 50000 inhabitants), 50 medium sized cities (between 20000 and 50000 inhabitants) and171 cities with a population under 20000 inhabitants.

In 1989, at the moment of the collapse of the communist regime, the majority of these cities had dense urban structures as the densification of the urban structures represented one of the means used by the communist regime to increase the surface of agricultural lands and to prevent the extension of the urban areas towards the surrounding areas. This aim was most often accomplished by ignoring the most basic rules of urban planning and generated undersized streets, lack of parking places, of socializing areas, of playgrounds for children and, of course, of green areas.

In post-communist Romania, local authorities, in a full restructuring and redefining process, had difficulties in the management of the intensified process of urbanization in the cities released from political restraints.

In 1995 Romania started the process of joining the European Union and consequently local and national authorities had to adopt European tendencies and policies on urban planning and to increase the interest of the expert and academic circles and of the civil society in such issues as life quality, housing quality and, implicitly, in green areas.

2 Urban green areas. Definition and functions

Urban green areas, term which initially included parks, public gardens and squares – with recreational and decorative purpose, extended gradually in order to include new meanings imposed by green urbanism [1].

The term urban green area has today various meanings according to “the way in which it influences the various aspects of human life and of the urban system as a whole” [22].
An increasingly used notion is that of **green infrastructure**. The meaning of the term covers more than the totality of the urban green areas and includes a spatial perspective on the network interconnecting open areas, public and private gardens, public parks, sports fields, garden plots, recreational areas within cities, including the wetlands and riverbeds in the near vicinity of the city. The development of this infrastructure is a consequence of the long term interaction between the natural and human systems and requires constant care and attention [16].

Having a broader meaning the term **blue-green urban infrastructure** covers the totality of the green surfaces of the city, private and public, gardens, as well as meadows, forest surfaces, parks, graveyards and rivers, wetlands and ponds. This also includes natural spontaneous vegetation of deposits, road sides, along railways, fences/walls and rooftops [5].

The ever increasing importance of green areas within urban textures was linked to the assertion of the term sustainable development (which introduced the necessity of long term management of cities), of the interests in human ecology (which determined the reassessment of the relation between human communities and their way of life), and of the ecology of human settlements (which studied the pressure of the built environment upon the natural environment).

Green areas asserted themselves in this context as “a vital part of city metabolism (…) capable of reducing the ecologic imprint of its residents while increasing their health” [18].

Green areas generate several functions within the urban system being mainly “used directly for active or passive recreation, or indirectly through their positive influence upon the urban environment directly accessible to citizens, serving their various needs and thus increasing the quality of life within cities” [23]. Thus, the functions of green areas are complex: ecologic, social, aesthetic and economic.

Numerous studies emphasize the essential role of urban green areas in the preservation of the environmental elements within urban systems [21, 3]. The vegetation determines the chemical cleaning of the atmosphere (by means of photosynthesis), the physical cleaning of the atmosphere (by means of dust and powder retention) and the bacteriological cleaning of the atmosphere (by means of oxygen and ozone release) [3].

Green areas have a positive influence upon urban climate by casting shadows and increasing air humidity [21], it can diminish sound pollution (according to the quantitative features of the green surfaces) and help preserve natural local vegetation in the circumstances in which in the rural areas this is replaced by crops.

Urban green areas have complex social functions [2, 15, 6, 4, 13], such as:
- promoting physical exercise (with direct consequences upon human health)
- stress reduction by their mere contemplation, as well as reduction of the feelings of fury, aggressiveness and frustration thus diminishing criminal and aggressive behavior;
- offering a stage of unquestionable aesthetic value which consolidates the state of satisfaction, attachment to the space of living and a sense of responsibility;
- offering a favorable place for socializing, thus playing a part in the social and cultural integration of the urban population.

All these advantages of the existence of green urban spaces have an important economic function as they increase the value of the built real estate and of the houses in their vicinity. Green urban areas increase the touristic attractiveness of cities as they are complementary tourist attractions which increase state of wellness of tourists.

Urban green areas are considered from all these perspectives essential elements of strategic urban planning [10].

### 3 Urban green areas in the transition period in Romania

According to official documents that control them, urban green areas are “a mosaic network or a system of semi natural ecosystems with a specific determined by the vegetation (wooden, arborescent, shrub, floricultural and herbaceous) [20]. The document, adopted prior to the joining of Romania to the European Union, states and acknowledges the functions and importance of urban green areas. The law thus “regulates the administration of green areas, as items of public interest, for the ensuring of the environmental quality and health of the population” [20].

The mere evaluation of urban green areas by means of reporting them to the total urban population emphasizes the inappropriate situation at the level of Romania, with a surface of only 18.6 m²/inhabitant, compared to the European Union standard of 26 m²/inhabitant [20].

The evolution of urban green areas in the last two decades is fluctuant (Fig. 1).
The slow growing tendency from 16.6 m²/inhabitant in 1993 to 18.6 m²/inhabitant in 2010, as it can be seen, is mainly a consequence of the decrease of the urban population, and only in small amount and in the lately years of the proper increase of green surfaces. (Fig. 2)

Only 13% of the urban population of Romania benefit of an average of 20-26 m²/inhabitant which comes near the European Union standards, while approx. 16.2% of the Romanian urban population has only 9 m²/inhabitant, which is less than a third of the European standard.

As the number of cities increased in the reference period from 236 in 1993 to 319 in 2010, the average green space on urban settlement is considered to be a relevant indicator. This value decreased from 71.86 ha to 64.76 ha [14].

The problem of urban green areas in the cities of Romania is a consequence of the continuous aggression imposed mainly in the 1990s when Romanian urbanism suffered from lack of policies, responsible institutions and means of control.

It must be underlined that official national statistics cover the large discrepancies between particular cities. Big cities registered mainly the most important loses by declaring green surfaces of considerable sizes as buildable surfaces: up to 360 ha (as in the city).

Considering that only 23% of the Romanian cities reach the European standard of green area/inhabitant, and a third of the cities do not meet the national standards on this issue the importance of this problem for local and national authorities is once more emphasized.

**4 Case study: the city of Timisoara**

Located 571 km from Bucharest, Timisoara is the largest development pole in the western part of Romania, with a population of 311,440 and one of the most important cities of Romania in volume of foreign direct investments, being second after Bucharest, capital of Romania. Timișoara is the most western of the major cities of Romania, being situated near the border with Hungary and Serbia, at a distance of less than 600 km of 13 European capital cities on the junction of important circulation routes that facilitate communication between Central and Western Europe and South-East Europe [9].

In its modern history, Timișoara was already called the “city of parks”, due to the early interest of the local authorities in green spaces [7].

As the city was situated in the middle of marshes and wetlands, the population planted trees in order to have clean, fresh air and to diminish the effects of the periodic flooding [8]. Green areas were, thus, mentioned on the oldest cartographic representations of the town.

When the walls of the old citadel were destroyed at the end of the 19th century and the beginning of the 20th century, the remaining empty space (a belt of approx. 1.5km wide surrounding Cetate district) was occupied into a high proportion by parks.

These green areas increased constantly in the first half of the 20th century and decreased afterwards. A first stage of this decrease was during communist regime (1947-1989), when the development of the city imposed by the systematization commandments of the regime was performed inwards in the detriment of the “free” (green) areas situated in the center of the city.

Consequently today the green surface per inhabitant is only 14,22m²/inhab., lower than the national average.

The total urban green spaces of Timișoara cover 429.14 ha (6.24% of the total surface of the city), structured in parks (87.59 ha), squares (12,97 ha) and green areas and linear tree plantations along circulation arteries (328.58 ha) [12].
The share of green surfaces in the districts of the city varies between 5.2% in Cetate district and 35-45% in the peripheral districts which have a rural aspect in some areas. A special situation is that of Elisabetin, Iosefin and Fabric districts situated in the vicinity of the central district which have shares of 35-45% of green surfaces.

Timișoara has a number of 15 parks with a total surface of 87.59 ha and 9 squares with a total surface of 12.97 ha which are in the constant care of the Mayoralty of Timişoara, which employed specialized firms for their maintenance. The city has also a botanical garden and a zoological garden.

The main parks of the city are Central Park (7.91ha), Cathedral Park (4.53ha), Justice Park (3.27 ha), Rozelor Park (3.74ha), Children’s Park (6.64ha), Mocioni –ILSA Park (2.78ha), City Centre Park (7.6ha), Botanical Park (8.41 ha), Alpinet Park (20.73 ha), University Campus Park (8.96 ha), Peoples Park (4.51 ha), Stadium Park (7.09 ha), Giroc Park (9.03 ha). The density of the vegetation varies in these parks, from 115 exemplaries/ha in Stadium Park to 276 exemplareis/ha in Scudier Park.[12]

As already mentioned the preoccupation for planned parks was amplified in the 19th century and continued in the first half of the 20th century, influenced by the general development of the town and the very high standard of living of the population.[7]. A short review of the actions of the local authorities denotes their constant interest in the improvement of urban aesthetic.

The first systematication activities were done in the 19th century and included planting of trees on the terrain between Cetate and Fabric neighbourhoods, on the two banks of the river Bega. Thus a park of 4.06 ha was created (CoronininPark) a part of it is preserved today in People’s Park.

Afterwards, the banks of the river Bega were transformed and thus a series of parks appeared from Fabric to Iosefin along the course of the river: Mocioni (Ilsa) Park, The Children’s Park, the Park of Roses, Park of Justice, Cathedral’s Park, Alpinet Park, Central Park (Fig. 3).

The Children’s Park was organized on a terrain where the Industrial exhibition of Timișoara took place in 1891.[7]. Its present surface is of 6.64 ha and originally was of 9.37 ha. From this park other parks were formed: The Park of Roses, the Park of Justice and Cathedral’s Park by separating various parts of the park with boulevards and building complexes.

The Park of Roses was a unique park having thousands of roses of numerous species. With an initial surface of 2.51 ha, it was reorganized after the bombardments of 1944 destroyed it and in its confines an open air theatre was built where numerous events are organized which grant the park a cultural function. It is under transformations which will be finished in the spring of 2012.

The Park of Justice (today with surface of 3.27 ha), meant to shelter in its confines the Palace of Justice which was no longer built, was replanted in the period between the wars, reorganized as a landscape park and rehabilitated after 1989.

Alpinet Park was organized in 1930-1940 on the left bank of the river Timișoara having numerous species of trees and other plants.

Central Park was built between 1870-1880 designed as an English style Landscape Park with long lawns and large beds of flowers. The park was restructured after the First World War.

Elisabeth Park (renamed by the communists as Doina Park) was built in 1898 in honor of the Empress Elisabeth, Sissi (as Timișoara was in that time the capital of the Habsbourg Region of Banat).

Few parks were created after 1944: Botanical Park, Stadium Park, Continetal Park and Giroc Park.

The city has numerous squares of various sizes in all neighborhoods: the most important are Opera Square (1.68 ha), Unirii Square (1.35 ha), Museum Square (1.43 ha), Freedom Square (0.8 ha), Bastion Square (2.53 ha), Bihor (1.7 ha), Plevna (0.52 ha), Doina (2.03ha), Crucii (0.91 ha), but only the first three have proper green areas.[11]

There are 169 functional playgrounds at the present moment in Timisoara which can be divided into three categories according to the specific of the activities: playgrounds for children with ages between 3-12, sports and playgrounds for teenagers and sports areas for adults.

The green surfaces of Timisoara increased with approx. 16% in the last 20 years the green surfaces of Timisoara. This is one of the positive results of the local authorities which were the first in Romania to establish a development strategy. The concept of strategic development of Timisoara made in 2000 established as the 4th action direction the “creation of a friendly habitat for its citizens” and as an objective “the development of green areas”[11].

Thus the mayoralty of the city, by means of the Direction of Environment of the Municipality constantly, managed important funds for the maintenance, the preservation, rearrangement and creation of new parks and green areas.

For instance, in 2007 in the green areas of Timișoara, were planted 3898 trees, 7575 bushes, 574 conifers, 44264 green hedges, 5940 roses, 173.607 annual flowers, 84.274 biannual flowers,
10,000 tulips, 4398 flowers on metallic stands and 22,579 m$^2$ of grass [11].

In the period 2008-2010 major investments were also made in the green areas of Timisoara (Fig. 3) [19].

In 2008 the expenses of the Mayoralty of Timisoara on green areas reached 6.5 million euro and in 2009, 4.8 million euro [19]. The most important investments were in the following:
- maintenance works in the parks and squares of the city;
- creating new ecologic parking spaces in total of 146 m$^2$ (e.g. Printul Turcesc Neighbourhood),
- planting of new trees, shrubs and bushes, flowers, roses, hedges etc., trimming of lawns, hedges, trees;
- installation of new benches and renewal of old benches, watering;
- maintenance and security works for the green areas in the residential areas, and the areas along tramway lines;
- modernization of squares (Cugir Square, Macilor Square, the Square on Negoiu Street, Arhangelii Mihail and Gavriil Square and Bihor Square);
- two parks were created - Water Plant Park and Bucovina Park with very modern conception (for instance a small open air theatre was made, a fountain, a small lake and two playgrounds were formed; one public restroom, as well as benches, pergolas, small hill).

The public-private partnership is one of the solutions applied by the mayorality of Timisoara. Eforie Square was arranged with the support of SC Metro Cash & Carry România, SC Real - Hypermarket and Metro AG; here lawns and alleys were created and benches and garbage bins were installed. The Adolescentilor square was rearranged in the program “the Parks of The Future” with the support of SC Petrom SA. Here trees and brushes were planted as well as flowers and roses, new alleys were formed, benches were installed as well as chess tables and garbage bins. An ornamental pond with a bridge was made and a sports and a skate yard were created.

All these results are reflected in the positive perception of the aspect of the city green areas in 80% of the inhabitants [27].

The most recent strategic development plan of the city – the Integrated Development plan of Timisoara Development Pole – sets as a major objective to create “an ecologic, comfortable and attractive habitat” within the “Urban-architectural planning of parks, gardens and squares” [26] program – proof of the focus of the local authorities to the modern concepts of sustainable development and green city planning.

The future plans for the mayorality of Timisoara include the finishing of the major projects regarding The Roses Park and Children’s Park, the modernization of Poporului Park, Justice Park, Arcidava Park, Doina Park, Piata Cruci Square, Memorandului Square, Piata Traian Square, etc. The green areas of Pestalotzzi Street, Parvan Boulevard, Fructelor, I. Curea, Vegetatiei, Muzicescu, Tarnava, Zaran Streets will aslo be transformed in the following year [19].

The efforts in the last years of the mayorality of Timișoara in preserving its surname of City of gardens are remarkable. We must nevertheless underline that at the moment the green surfaces of Timisoara are far from being sufficient.

The equitable character of the access of the population to these green areas must be established as an objective for the local authorities.

5 Conclusion

The cities of Romania are in a critical situation considering the European standard of the required green areas. This is a reason for which reaching an index value of 35 m$^2$/inhabitant if green space in rank I and II cities appears as a strategic aim in official documents and plans.

The high density of built structures, especially in the residential neighborhoods dating from the communist period, represents a serious problem from this point of view. Local authorities must be receptive to the solutions proposed by the urban planners such as green curtains or suspended
gardens, and to think in terms of green or green/blue infrastructure.

Acknowledgement
This contribution is supported by POSDRU 89/1.5/S/63663 “Trans-national network of integrated management for post-doctoral research in the field of Science Communication. Institutional construction (post-doctoral school) and fellowship Programme (CommScie)”.

References: