

Research on the situation of traffic routes in landscaping from the city of Timisoara

Berar C.^{*}, Toța Cristina Elena, Székely G., Silivășan M. V.

Banat's University of Agricultural Sciences and Veterinary Medicine "King Michael I of Romania" from Timisoara, Faculty of Horticulture and Forestry, 119 Aradului Street, 300645 Timisoara, Romania

*Corresponding author. Email: cristianberar@yahoo.com

Abstract This paper is a study on the existing situation of traffic routes in green spaces in Timisoara. Timisoara is a city of parks and not always, in the arrangements made, were chosen the best solutions [11]. Green spaces must be designed for people and the general principles of function and design must be observed. At the beginning, are presented several case studies from the country and abroad and then were chosen three parks and squares from Timisoara (The Rose Park, The Botanical Park and The Cross Square), analyzing the materials, functionality and design of the alleys [9]. We consider that such a study is very topical and gives us informations about the execution of the alleys [5]. We propose the use of new construction materials, suitable from an ecological and functional point of view and free routes that will satisfy those who transit the green spaces. The diversity of materials is very high and it is a pity that there are limitations in landscaping [10].

Key words

landscape, alleys, construction materials, parks, squares

The green spaces in Timisoara have undergone a great transformation over time. Some of them have kept their original character, and others have changed their main functions. The area occupied by them in Timisoara remains important, keeping the reputation of the City of Flowers. An important problem remains the one related to their permanent maintenance and to the increase of the landscape value through the introduction of new species, the use of modern materials, adequate furniture etc. [4].

Material and Method

In order to carry out the study, an analysis was made on the traffic routes in the three green spaces. As analysis criteria, their functionality, the type of construction material used and their design were chosen. A photographic analysis was made, the

construction materials used in each site were analyzed, their functionality and design were studied.

Results and Discussions

After the First World War, the rapid economic development generates for Timișoara a particularly prosperous period, in which the arrangement of new parks continues: The Alpinet Park and The Rose Park. Out of the need to present to the public the collection of roses and to create the premises for the selection of the best varieties, the Rose Park was arranged in 1928 [14].

In 1939, the rosary became the property and administration of the Municipality of Timișoara. In the first years, the rosary was rehabilitated by filling in the missing varieties, from own acquisitions and production [1].

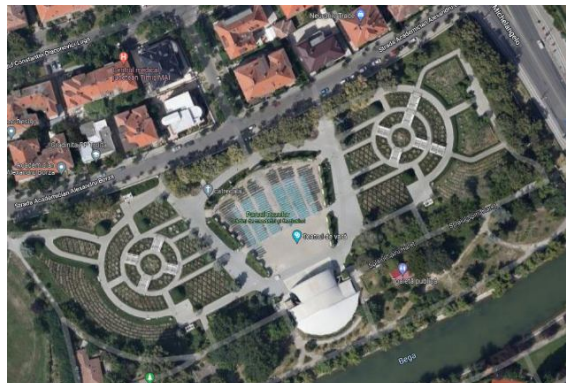


Figure 1. The Rose Park (source Google Maps)

Beginning in 1944, the park entered a period of devastation caused by German troops. A first attempt to rehabilitate Rose Park, after many years of total lack of interest, is the construction of the open-air amphitheater in the center of the park, in 1954-1955. The most efficient period of species completion and

restructuring of the entire park takes place after 1960 and especially after 1967, when the park is the subject of a landscaping project [3].

The last refurbishment was done in 2010. In Rose Park we find alleys made of concrete paving, cubic stone and asphalt.

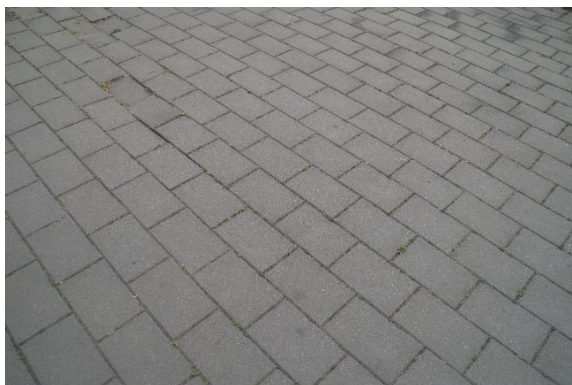


Figure 2. Paved alley (source own archive)

The alley network connects the important areas of the park and is a regular and functional one.

People follow the current route of the alleys and no side paths have been made.



Figure 3. Natural stone alley (source own archive)



Figure 4. Cubic stone alley (source own archive)

In the map of the city from 1936, the area of the Botanical Park appears as an existing park with a series of figurative alleys, with the appearance they still have today. In 1959 it had an area of 97,895 sqm, and

in the same year 13,000 sqm of flower arrangements were arranged [8]. Between 1963 and 1972, there was a concern for the systematization service and the green space service of the city, the concern for the location of

a botanical garden, proposed, finally, to be arranged against the background of the park near the Municipal Hospital (New Clinics) [13]. The systematic sector that illustrates in all the botanical gardens the genealogical tree of the vegetal kingdom occupies the central surface in the perspective of the entrance and was marked with concentric alleys, bordered by layers of plants that

surrounded a basin, dominated by already existing woody vegetation [2].

This sector was to illustrate especially the flora of Banat, so that characteristic subsectors of karst flora were delimited on the left of the semicircle, Domogled flora on the right and Semenica flora in the central area [12].

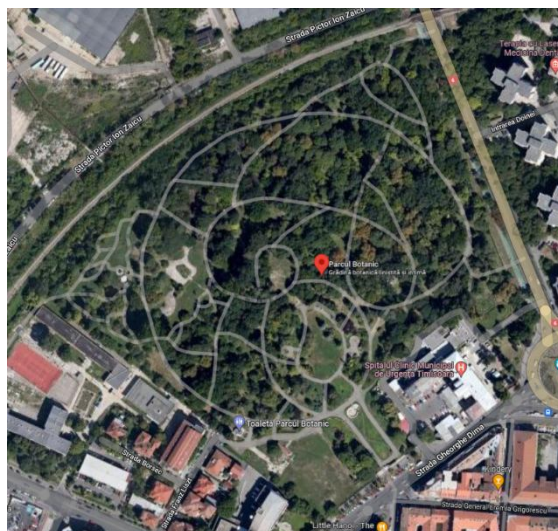


Figure 5. The Botanical park (source Google Maps)

In the years 1987-1989, when the garden functioned in normal conditions, the objectives provided in the project were completed, among which are noteworthy: the Japanese garden, the Roman garden and the ornamental wall in the American flora sector. The planting activity was also continued in all sectors of the garden with material from the Timisoara Horticultural Enterprise, the dendrological parks in Macea and Gurahont and the botanical gardens in Cluj and Iasi and spontaneous flora or donations from private individuals. At the end of this period, the biological dowry of the garden reached 1360 taxa recorded in the records (of which 1040 planted permanently, 320 planted in the nursery) [6].

The Botanical Garden organizes on May 14, 1987 with the help of collectors from Timisoara and other localities in Banat, an exhibition of cacti and other succulents for sale, visited by over 10,000 people, drawing attention to the educational activity that this institution can carry out.

Since 1987, the garden has published a catalog of seeds offered for mutual exchange to other botanical gardens in the country and abroad. The initiative involved a considerable effort to collect seed samples (450-500 species per year) by some members of the scientific council but was of major importance for very fast entry into the international circuit and for the procurement of seeds or plants from other parts of the world. Starting from the third year of existence, the garden has established stable catalog exchanges with approx. 150 similar institutions from all continents,

receiving in just two years 722 samples of seeds and plants from 70 gardens in Romania and abroad and honoring the requests for 475 samples from 89 gardens. During 1991 the garden was managed by the University of Sciences. After 1992, the garden staff was dispersed, the international exchanges were stopped, although for a long time the botanical gardens in the world still believed in the existence of one in Timisoara, sending exchange catalogs. The collection of grass species has been practically destroyed, and from the collection of wood species, the valuable specimens have disappeared, as well as the equipment purchased for the mechanization of some works [15].

The current situation of the park, from the point of view of the scientific function, is more than dramatic. It is a loss of a genetic fund, practically irrecoverable, considering the fact that in the more than ten years since the introduction, with a lot of human and financial efforts, of several hundred taxa (over 1300), they would have accumulated increases. considerable, it would have proved its adaptability and today there would have been a very valuable plant background. This loss is mentioned against the background of the non-existence of a dendrological park or of a collection of this kind in a big city, with the pretension of a city of flowers, of parks, in a city with several faculties of natural sciences. In the Botanical Park, the alleys are made only of asphalt. Their structure is a regular one in the front and free in the other areas of the park.



Figure 6. Asphalt alley (source own archive)

Unfortunately, their route does not always take into account people's options and many side paths have been created, made by people on foot.



Figure 7. Natural path made by people (source own archive)

The current balance is: approx. 50 species left over 1000, dramatically few, remains scattered in plant systematics, without any logic, without any special attention in their conservation. The recreational function is currently the only important function. The somewhat isolated position of the park, its size, the variety of relief, with well-developed unevenness, the variety of vegetation and not least the special landscaping of the entrance, make this park the most important recreational objective of the city. Even if the flow of visitors does not reach the figure of 60,000 per year, as mentioned, based on clear evidence of entries

in the period 1986-1989, it is obviously higher than in other parks in the city. The current square of the Cross Square is, according to a map from 1849, at the northern limit of the “Maierile Românești” settlement, right on the line of the construction interdiction circle around the Timișoara fortress. In the map from 1900, the orthodox church was built, in front of it there is a small empty field, and next to it there is the Cross Square, named after an old cross that has been preserved to this day. In the 1936 map, the area appears well built and the two squares: Church Square and the well-defined Cross Square.

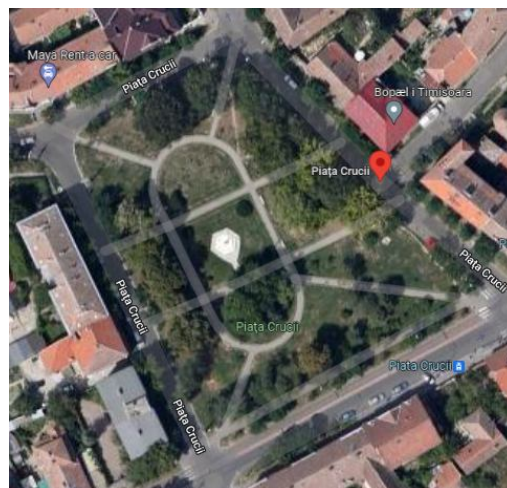


Figure 8. The Cross Square (source Google Maps)

After the age of the oldest specimens of trees, the two squares were planted and arranged as green spaces after 1920. The current arrangement, with the tracing and paving of the alleys, with a construction of the new monument in honor of the heroes, is done after 1920.

The functions of the square are recreation and transit. The traffic routes in the three green spaces have various construction materials. In the Cross Square the alleys are made of concrete slabs, but their condition is totally unsatisfactory and they are degraded.



Figure 9. Alley made of concrete slabs (source own archive)



Figure 10. Natural path made by people (source own archive)

The route of the alleys does not respect the wishes of the people and paths have been created here as well.

Conclusions

The three green spaces studied have advantages and disadvantages in terms of traffic routes.

The chosen construction materials are not always the most suitable nor their route.

We propose to use as much as possible natural materials (natural stone, wood) and as little as possible asphalt.

Also, the paths drawn by people to be integrated in the structure of park traffic routes.

The maintenance of the alleys must be done permanently, otherwise they will deteriorate quickly.

References

- [1] Borza D., Ciupa V., Eperies M., Oarcea Z., 2001, Cadastrul verde al municipiului Timisoara, Editura Brumar, p.93.
- [2] Ciupa V., 2018, Timisoara oras gradina, oras al parcurilor, oras al florilor, Editura Artpress, p.176.
- [3] Ciupa V., Radoslav R., Oarcea C., Oarcea Z., 2005 – Timisoara verde – sistemul de spatii verzi al Timisoarei, Editura Marineasa, p. 86-90.
- [4] Holden R. and Liversedge J., 2011, Construction for landscape architecture, Laurence King Publishing Ltd, p.202.
- [5] Iliescu Ana – Felicia, 2014, Istoria artei gradinilor, Editura Ceres, p.258.
- [6] Iliescu Ana – Felicia, 2003, Arhitectura peisagera, Editura Ceres, p.80.
- [7] Iliesiu N., 2006, Timisoara – monografie istorica, Editura Planetarium, p.124.
- [8] Marcus R., 1958, Parcuri si gradini in Romania, Editura Tehnica, p.78.

- [9] Mihai D., Berar T., 2002, Constructii civile, industriale si agricole, Editura Mirton, p.190.
- [10] Miller B. Lynden, 2009, Parks, plants and people – beautifying the urban landscape, W.W.Norton, p.78-80.
- [11] Montgomery C., 2017, Orasul fericit, Editura Igloo Media, p.270.
- [12] Preda M., Palade L., 1973, Arhitectura peisagera, Editura Ceres, p.66.
- [13] Preyer J.N., 1995, Monografia orasului liber craiesc Timisoara, Editura Amarcord, p.257.
- [14] Podlipny Hehn Annemarie, 2008, Timisoara, Editura Cosmopolitan Art, p.106-107.
- [15] Von Schuster Else, 1996, O plimbare prin Timisoara, Editura ADZ Verlag, p.90.