



Evolution of urban built space and green space in Bârlad city

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EVOLUTION OF URBAN BUILT SPACE AND GREEN SPACE IN BÂRLAD CITY

Alexandru Iulian Crăciun¹

Abstract. Since the early twentieth century, urban development has seen a major interest in human geography, particularly given by the industrial revolution which led to mass movements of population from rural to urban region, creating an imbalance between rural and urban areas. The evolution of urban built space is a comprehensive study that begins by setting historical site that during history was influenced or shaped by political and economic actions; this evolution leads to a decrease of green areas and negative effects on ecosystems. Bârlad has experienced a period of 106 years (1906-2012) of development of its limits, the two components analyzed urban built space and green space has undergone significant changes due two world wars, natural hazards and socialist industrialization.

Keywords: socialism industrialization, urban built space, green space.

1. History and urban site formation

Located at the crossroads of two subunits of relief, Tutova Hills to the west and Fălciu Hills to the east, Bârlad has benefited from a favorable site development of pre-state formations "Țara Berladnicilor" that has been established at the intersection of trade routes that linked Central Europe to Black Sea. Certificated in 1408 in a document sent by Alexandru cel Bun to merchants from Liov, Bârlad had a history of warfare with Ottoman Empire, and the Tatars; the city knowing periodic regression and economic development. In the early nineteenth century the city experienced a period of calm that led to the economic and cultural development of the city. Industrial Revolution was manifested in the Bârlad City with forms of production by manufacturing and craft forms. Bârlad City industry started with a soap factory, seven mechanical mills, which began using steam power, and some mechanical workshops². At the end of the nineteenth century Barlad developed first urban plan of the city (1868) that led to the town planning.

2. Materials and methods

Materials used in the analysis are Bârlad city plan at scale 1: 5000 from 1906, Bârlad City topographic plan at scale 1: 2500 from 1941, topographic plan of the municipality Barlad at scale 1: 1000 from 1971 and 2012 orthophotomap. "Urban" is a place-based characteristic that incorporates elements of population density, social and economic organization and the transformation of the natural environment into a built environment

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² *** Monografia municipiului Bârlad 1174-1974, pag. 63.

(Weeks 2008). Under Article 3 of Law no. 24/2007 regarding the regulation and management of green spaces in urban area, reprinted 2009 green spaces are composed of the following types of land within the city limits:

- a) public spaces with unlimited access: parks, gardens, squares, strips planted;
- b) public green areas of special use:
- c) botanical and zoological gardens, open-air museums, exhibition parks, recreational and ambiental for trained animals in circuses;
- d) for public facilities: nurseries, kindergartens, schools, hospitals or social protection institutions, edifices, cemeteries;
- e) parks or sports grounds for practicing sports;
- f) green spaces for recreation: recreation, poly recreational and sports complex;
- g) green areas to protect lakes and streams;
- h) corridors protection for technical infrastructure;
- i) recreational forests.

According to the definition of John R. Weeks and Article 3 of Law no. 24/2007, republished in 2009, was made vectorization of urban built space and green spaces using ArcMap 10 from maps, topographical plans and orthophotomap to observe the two components that will be analyzed with mapping and graphical methods.

3. Evolution of urban built space

Built urban space has experienced a period of development in the period 1906-2012 (Fig.1), which is delimited by two periods of slow evolution, from 1906 to 1941 and from 1971 to 2012; and a period of great development in the period 1941-1971. These historical periods of the city Bârlad are shaped by political events (change of political regime, wars) and natural events (floods and earthquakes).

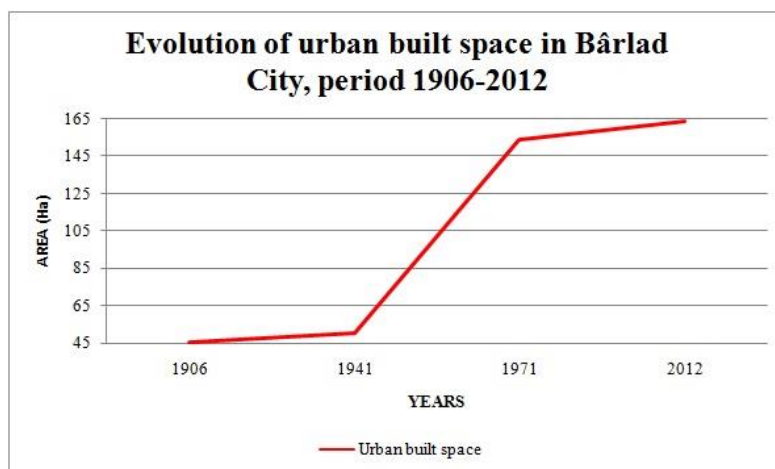


Figure 1: Evolution of urban built space in Bârlad City, period 1906-2012

Year 1906 is characterized by a high density of urban built space especially in the city center, in the old hearth of the city, were most of the urban built areas are block with two levels. Here take place all economic and cultural activities of the city, the oldest schools and colleges in the city, and most workshops. From the center to the periphery, urban built space is dispersed in slums like Munteni Podeni, Station (east side of the city) having a low density.

In the western part of the city, on the banks of Valea Seacă Stream, density of urban built space is still high. Buildings with the largest areas are found in the northern city, Primary School (0.45 ha) and Municipal Hospital (0.30 ha).

The evolution of urban built space between 1906-1941 suffered particularly because of World War floods in the years 1932-1934 that led to the destruction of 426 houses and 827 other damage; earthquake of 1940 and led to the destruction of 1566 homes and 3036 flooded of homes. We classify this period as a slow evolution of urban built space (5 ha) in the city's history after loss that were especially in the slums of the lower terraces of the River Bârlad. During the same period the urban built space emerged into the western part of the city to Cimitirului Hill, due the high water. Highest density is present in the center, and the main road artery of the city, today Republic Boulevard, had series of urban built spaces by type of block, most of them having at ground floor a handicraft workshop or shops, while the first level was inhabited.

In the period 1941-1971 Barlad City (municipality declared in 1968) had gone through a period of changes in terms of administrative and political statute; Tutova County seat in 1950 with the residence of Bârlad District and after the declaration of the municipality statute, it was the only municipality city in the Vaslui County. However, in this short period of 30 years, the city had known an economic development through industrialization that started with Uzinei de Rulmenți Bârlad (1953) and Fabrica de Elemente Pneumatice și Aumatizare which began to work in 1972, and also with clothing factories, bakery factories, oil mill, drying tobacco factory, etc. Machine building industry URB and FEPA had occupied an high area of urban built space in the northern city. It can be seen that in the western part of the city urban built space has grown significantly, evolution justified by the fact that, after the floods in the period 1969-1971, were given in use for construction of houses surfaces land from Cimitirului Hill and Țuguiața Hill. Also had appeared in the southern part some warehouses and agricultural units. However, for the period 1948-1971, E.G.L.E. Bârlad performed demolition of homes after a centralized method of expropriation, demolition and construction of residential buildings to provide homes for young people but also for employees who were involved in the machine industry and the clothing. During this time, the city had grown with 104 ha of urban built space.

Analyzing urban space area between the period 1971-2012 can be seen that Bârlad has developed limits by introducing 4 new neighborhoods (neighborhood Complex Școlar, neighborhood Deal 2, neighborhood Țuguiața 2), and an extension of the Deal neighborhood, these developments begin to be taken after the introduction of Urban General Plan in 1991. However, significant changes occur in the socialist period, during 1971- 1989, represented by the demolition and construction of new buildings after 1977 earthquake that hit Bârlad, 1954 houses collapsed and 6291 severely damaged. Thus during this period Bârlad City, the urban built space is growing slowly with 10 ha, which can be seen especially in the west of the city.

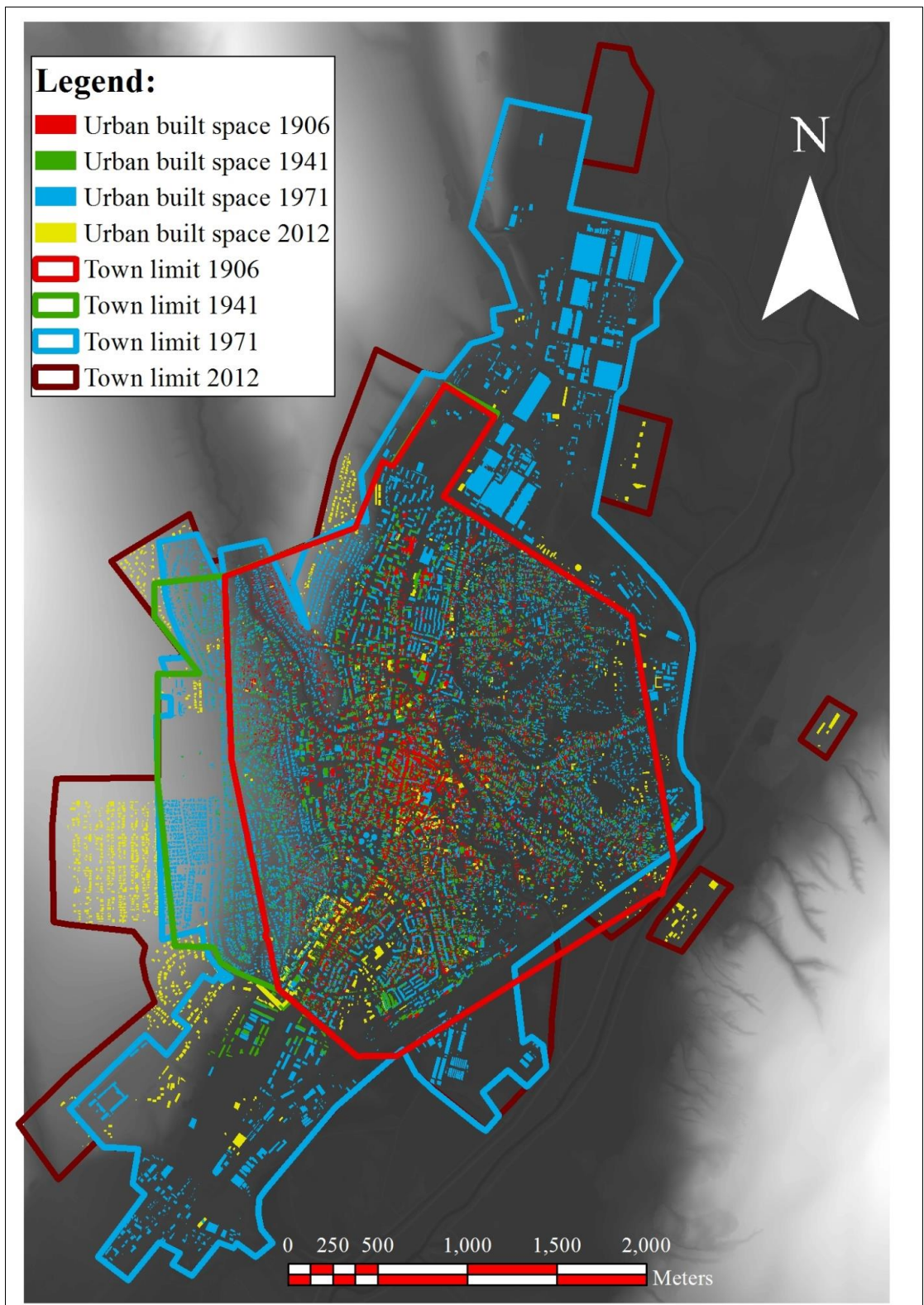


Figure 2: Map of evolution of urban built space in period 1906-2012

4. Evolution of green space

After Article 3 of Law no. 24/2007, republished in 2009, evolution of green spaces is continuous; as for urban built space, for which we can determine three distinct periods of evolution, two slow and one significant. Can be seen that the planning after 1941 put a greater emphasis on green areas, both public health and environmental conditions.

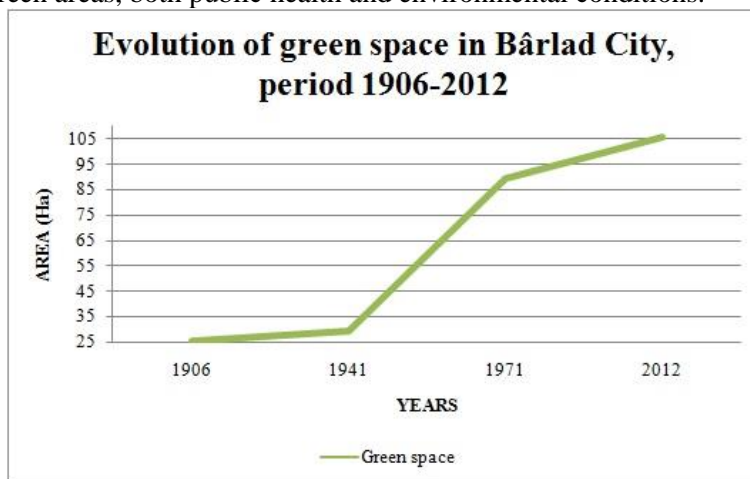


Figure 3: Evolution of green space in Bârlad City, period 1906-2012

In 1906, the only green space we find is Bârlad Public Garden and green space protection of watercourses. These totals 25.5 ha, with a low value. This is due to the fact that much of the city area is occupied by private property, and may not include green spaces from the yards in the analysis.

Evolution of green spaces during 1906-1941 is a slow one 3.8ha. In Bârlad City, in addition of Barlad Public Garden and green space along the river, in this period appear two parks, Izvoarele Park in the central south-west, and Central Park in front of Communal Palace Bârlad. Also begin to appear green spaces along transport routes, hospitals and schools.

Developments in the 1941-1971 period were based on socialist urbanization that intended to achieve a number of green spaces along transport routes, around the blocks, public institutions, educational institutions, hospitals etc. During this period disappeared Izvoarele Park and Central Park; in their place appeared two new parks "Victor Ion Popa" Theatre Park and "Mihai Eminescu" Park. Meanwhile, to the north and south of the city, after city limits had been modified, a number of areas covered with forests can be considered as green spaces of the city. This areas were intended for entertainment. Public Garden limits were changed after the Zoological Garden and covered plots of forest were introduced in its composition. Thus the period 1941-1971, green spaces have grown by about 60 ha.

The period 1971-2012 is characterized by a slow evolution of 16 ha, thanks to the extension of the city limits that included a series of wooded areas, and green spaces placed around the blocks from the south, this green spaces were created at the end of socialist urbanization, and in the early post-revolutionary period of the city.

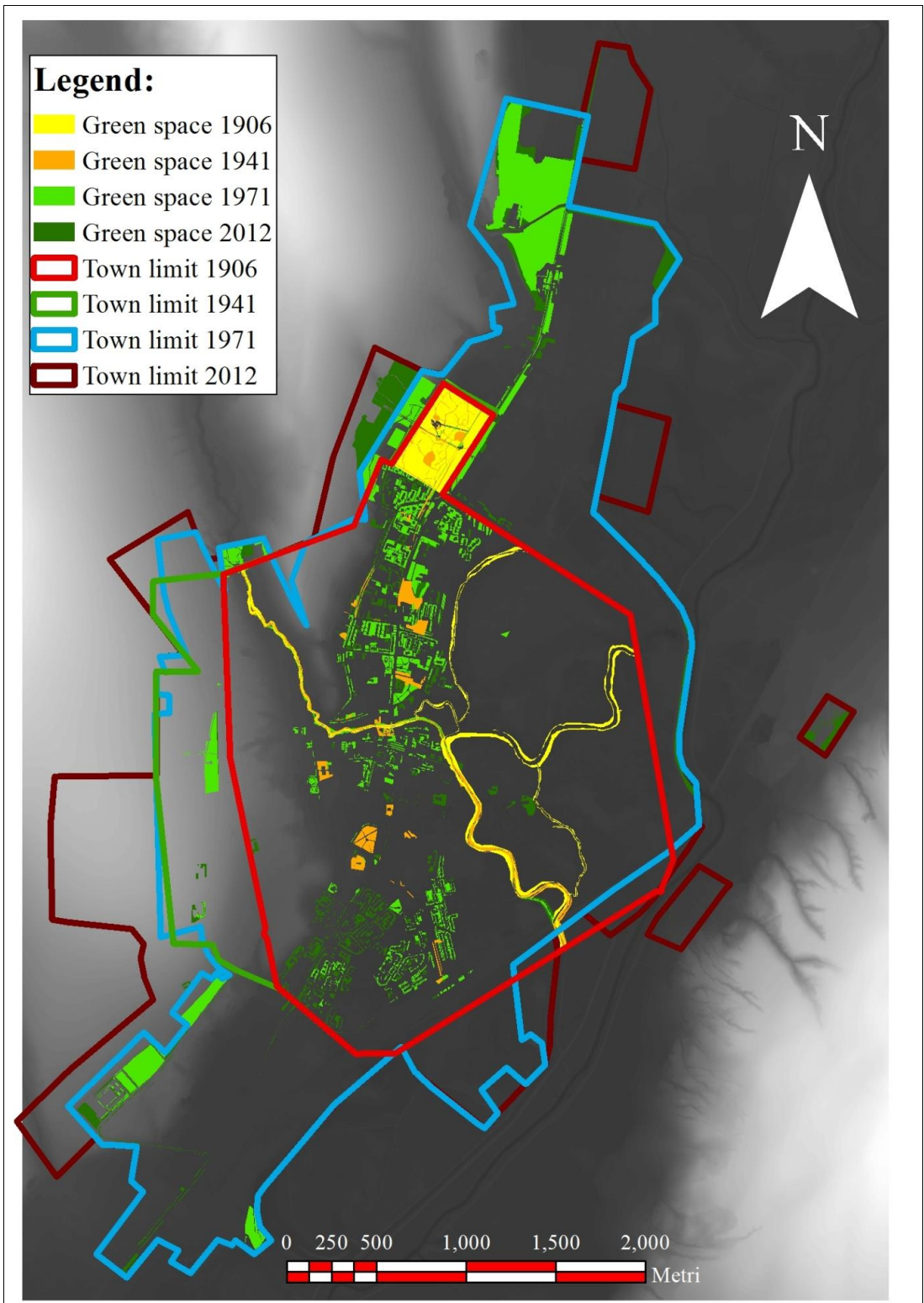


Figure 4: Map of evolution of green space in Bârlad City, period 1906-2012

Conclusions

Both evolution of urban built space and green areas has been shaped by political changes (between capitalist and socialist period), economic (socialist industrialization) and natural (floods and earthquakes); observing three distinct periods of development, two slow and one significant.

Urban built space had a constant evolution that was mainly between 1941-1971. The city industrialization has led to an increase of population and an e automatically increase of built urban space; which was mainly in the north (industrial area) and west of the city (neighborhood Deal and neighborhood Țuguiața).

Green spaces are a necessity for human health and the environment, the reason of increasing the development of green spaces, especially in the period 1941-1971; lawns beside transport routes, around the blocks, around hospitals, schools, administrative buildings, cultural buildings and by planning parks in Bârlad City.

References

1. Albăstroiu, E.S. 2008. Evoluția funcțională, teritorială și urbanistică a municipiului Bârlad, Iași: Ed. Universității Al. I. Cuza
2. Weeks J.R. 2010. Defining Urban Areas, Remote Sensing and Digital Image Processing, Vol. 10, Ed. Springer, p.33-45
3. *** Monografia municipiului Bârlad 1174-1974, 1974.
4. *** Legea nr. 24/2007 privind reglementarea și administrarea spațiilor verzi din intravilanul localităților, republicată 2009

