POSTSOCIALIST TRANSFORMATION OF CITIES IN THE REPUBLIC OF SERBIA - A CASE STUDY OF NOVI SAD AND PETROVARADIN

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Abstract

Novi Sad and Petrovaradin, as two inseparable entities, have undergone large urban changes in the latest decades. Huge transformations in morphological features and spatial structure of Novi Sad occurred in the period from the breakup of Yugoslavia to the end of the second decade of the 21st century. The transformation of Petrovaradin followed at a slower pace at first but later on it intensified.

The paper data rely on General Urban Plans of Novi Sad from the years 1985, 2000 and 2006. The comparative method, field research and analysis were applied to identify the parts of the city which underwent the largest transformation processes. Certain changes in the structure of street networks, changes in the inner physiognomy of the settlement, as well as disruption of architectural balance have been recognized. The direction of urban transformations has been identified by the analysis of social changes. Also, the present and potential problems were pointed out including the improvements which the inhabitants gained due to urban transformations of Novi Sad and Petrovaradin. It has been estimated that urban transformation in Novi Sad led to disruption of architectural style in certain parts of the city by erecting modern buildings which do not integrate into the setting of architecture from earlier periods neither with their exterior nor with the materials used. Contemporary building structures occupy larger areas of municipal building land, the number of apartments per unit area increases, the need for parking spaces also increases and green areas are reduced in the city.

Keywords: Novi Sad, Petrovaradin, postsocialist transformation.

INTRODUCTION

Novi Sad is in terms of population size the second largest city in the Republic of Serbia and the largest city in the Autonomous Province of Vojvodina. The city developed on the settlement which grew up in the alluvial plain of the Danube River, in south Bačka, one of three regional units in Vojvodina. Certain settlements existed in that area and its surroundings before the development of the city of Novi Sad.

Novi Sad is a relatively young settlement. Its origins date back to the period when the construction of the Petrovaradin Fortress started in 1694. The development of the settlement accelerated due to the arrival of soldiers, craftsmen, farmers, merchants and others who populated it during the construction process. Novi Sad became a significant settlement in the south of the Austrian Empire in the next half of a century and its citizens succeeded in collecting funds and purchasing the status of a Free Royal City in 1748. The following century for the city of Novi Sad was marked by constant cultural, economic, demographic and consequently urban morphological development. After such intensive development, the city of Novi Sad was bombed from the Petrovaradin Fortress and devastated in 1848. The bombing also influenced the population decrease. From the 19th century, the city started to grow intensively towards the north, east and west.

Due to the wetland terrain in the alluvial plain, it was only in the period between two world wars when Novi Sad expanded to the bank of the Danube River when the area was drained [1] and the embankment was built. The Second World War contributed to the devastation of certain buildings in Novi Sad. Despite that, there are a lot of buildings in the city centre that date back to the second half of the 19th century or the beginning of the 20th

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century. The design of the buildings outside the centre in Novi Sad after the Second World War contributed to its architectural features of a socialist city. Political events at the end of the 20th century led to the changes in the urban portrait of Novi Sad. On the one hand, the transition period implied the closure of numerous factories. On the other, it increased the significance of tertiary and quaternary sectors, which finally resulted in the urban transformation of Novi Sad. The transformation process was especially intensified in the last several decades. Since the 1990s, when free locations for construction sites became scarce the need for revising the building occupancy emerged with

MATERIAL AND METHODS

[2][3][4] were used in this paper. The comparative method, field research and analysis were applied to identify the parts of the city which had undergone the largest transformation processes.

Inner changes of the settlement physiognomy were ascertained as well as disruption of architectural balance in certain parts of the city. Moreover, the attention was drawn to present and potential problems due to urban transformations of Novi Sad and Petrovaradin. Field research and analysis of spatial plans were needed to estimate which parts of

POPULATION CHANGES AS A DRIVER OF URBAN TRANSFORMATION IN THE PERIOD 1991 – 2011

Since the 1970s Novi Sad recorded the largest increase in the population numbers (40,142) in the first decade (2002-2011) of the 21st century. In the 1970s during industrial development, the population increased by 29,613 inhabitants (Table 1). According to the data of Public Utility Company "Informatika", Novi Sad had a population of 290,549 at the beginning of the third decade of the 21st century. Thus, the population of Novi Sad increased by about 59,000. The increase of the population in the last decades was mainly the result of migrations. Although Novi Sad belongs to the group of only six municipalities in the Republic of regard to certain buildings which lost their adequate function. Afterward, the individual family houses were pulled down to make room for residential housing. This process did not exclusively take place in the city centre but also in other parts of the city. In the last several years there was intensive construction of residential housing in Petrovaradin. Old "German houses" which were built in the 18th and 19th centuries were pulled down. Intensive construction of multi-storey buildings in Petrovaradin was the result of strengthened tertiary and quaternary sectors in Novi Sad and its urban development, so Petrovaradin and other suburban areas became "dormitory towns" of Novi Sad.

Novi Sad and Petrovaradin had changed. It was necessary to compare the old photos with the present situation in the city. The comparative method and field research greatly contributed to estimating changes in Novi Sad and Petrovaradin in the last three decades. Urban changes were mainly caused by population changes the intensity of which was necessary to be explored. The data of the Statistical Office of the Republic of Serbia were used to estimate changes in population and dwelling numbers.

Serbia with a positive natural increase (0.9‰ for the year 2019), it is not enough to have population increase value to be the consequence of population migration. Immigration towards Novi Sad has been present for decades, from its industrial development and the period when it was an important industrial centre, to the present day when Novi Sad is the centre of tertiary and quaternary activities. Many old industrial objects, which are now closed, and newly opened industrial objects do not employ large numbers of people compared to the second half of the 20th century.

Settlement	Census year							
	1971	1981	1991	2002	2011			
Novi Sad	134,160	163,773	173,186	191,656	231,798			
Petrovaradin	10,477	10,338	11,285	13,973	14,810			
Population increase								
Settlement	Period between censuses							
	1971/1981	1981/1991	1991/2002	2002/2011				
Novi Sad	29,613	9,413	18,470	40,142				
Petrovaradin	-139	948	2,688	837				
Source: [5]								

Table 1. Changes in Novi Sad and Petrovaradin population numbers in the period 1971-2011

Source: [5]

An increase in the population numbers is accompanied by the increase in the construction of apartment buildings. As it may be seen in Table 2, intensive construction of residential buildings also occurred during the 1970s when industrialisation caused the increase in the population numbers. Later on, the construction of residential buildings slightly decreased (ca. 750 apartments per year) in the 1980s. In the 1990s it intensified again, and then it reached its peak in the first decade of the 21st century (ca. 4,000 apartments per year) (Table 2).

Changes in Novi Sad and Petrovaradin dwelling numbers in the period 1971-2011

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Settlement	Census year						
	1971	1981	1991	2002	2011		
Novi Sad	45,255	58,753	66,257	80,369	117,074		
Petrovaradin	3,105	3,297	4,222	4,981	5,646		
Difference between censuses							
Settlement	Period between censuses						
	1971/1981	1981/1991	1991/2002	2002/2011			
Novi Sad	134,98	7,504	14,112	36,705			
Petrovaradin	192	925	759	665			
Source: [6]							

Source: [6]

According to the data of the Statistical Office of the Republic of Serbia, the trend of high numbers of newly built apartments continued after the population and dwelling census in 2011. 3,282 new apartments were built in Novi Sad in 2019. According to the obvious picture from the field,

URBAN TRANSFORMATION OF NOVI SAD AND PETROVARADIN IN THE 21ST CENTURY

After the collapse of the socialist system many countries, especially those joining the European Union, underwent economic changes accompanied by urban transformations. The development of socialist cities was based on the industrial development of public and state-owned enterprises. The collapse of the socialist system caused economic ownership changes (denationalization of property, restitution) which further initiated the intensive construction of apartment buildings continued in Novi Sad and Petrovaradin in 2020 and at the beginning of 2021. As the pandemic spurred financial and economic crisis, the people decided to invest in real estate since they perceived such investments as the safest..

building of shopping malls and new residential buildings [7]. At the same time, old industrial complexes were abandoned, transformed or assigned new purposes, or even pulled down. Individual households in certain parts of the city were also pulled down, new boulevards were built, and the existing ones broadened, where possible, all that caused by the increasing numbers of automobiles in the city streets.



Figure 1. - Fabrika and Silk Factory

There is ample evidence to show the aforementioned processes and changes for Novi Sad and its suburban area Petrovaradin. Numerous

industrial facilities from the socialist period were closed. Some of the abandoned industrial objects were repurposed and some objects remained

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without adequate purpose. The factories which were in operation before the socialist period now gained their new purposes in the 21st century. Certain facilities of factories, train depots and warehouses in the old industrial zone (Liman), as well as in other parts of the town were used for cultural events. Among such facilities there are Fabrika, Students' Cultural Centre Novi Sad and old silk factory turned into Svilara Cultural Station (Figure 1). The city intends to assign a new role to several more old industrial objects, e.g. Czech warehouse, cotton weaving factory, Schultz mill, train depot, former tannery, etc. [8] [9] [10]. Besides the repurposing of old industrial facilities, Novi Sad obtained new shopping malls, residential buildings, technological centre and other business premises. In the 1980s, the most significant shopping centre was the Sports and business centre SPENS in Novi Sad (Figure 2). At the same time, there were two department stores Bazar and Nork. However, new shopping centres: Pariski Magazin, Apolo and Lupus were built at the beginning of the 21st century. Those centres were built next to the old-style buildings and thus undermining the architectural style in that part of the town [11]. Then followed the construction of shopping malls BIG, Mercator and Promenada (Figure 2). BIG shopping mall was built in the suburban area of the city, Mercator shopping mall was built in the Liman area, and finally, Promenada shopping mall was built diagonally across the intersection from Mercator shopping mall and it attracts the largest number of customers nowadays. BIG and Mercator shopping malls were built on undeveloped building land, but Promenada shopping mall was built after tennis courts and parking lots were pulled down. Parking lots became deficient in the city since the automobile numbers were constantly increasing (from 88,486 automobiles in 2011 to 116,112 automobiles in 2019) [12][13]. The citizens of Novi Sad needed not only residential buildings but also sports grounds. A question arises whether it is necessary to have three shopping malls in a relatively small area which were all built at the expense of green and other areas where citizens could spend their free time instead of spending it in the shopping malls.



Figure 2.- Sports and business centre SPENS and Shopping Mall Promenada



Figure 3. New buildings in Bulevar Oslobođenja

The residential building was intensified in the last two decades in Novi Sad. There were very few areas in municipal building land for building such objects. Such areas still existed only in the following parts of the city: Novo naselje, part of Detelinara and Sajmište next to the newly built boulevard Evropa. In other city quarters, the city centre, Grbavica, Rotkvarija and Podbara old individually owned dwellings were pulled down and new residential buildings were built (Figure 3).

The process of gentrification or urban regeneration led to social transformation in those parts of the city [14] [15]. Newly built residential buildings have more separate dwelling units in the same area, more inhabitants and a need for more parking spaces, which is an ever-growing problem in the city. Last but not least urban change in the centre of Novi Sad was first the demolition of the building of Komunalna bank and the construction of residential and business complex Pupin Palace at the same location (Figure 4). This newly built complex, together with previously built shopping centres (Pariski Magazin, Lupus) in the city centre, is a contemporary style concrete-glass-steel building. There were no examples of such style in the centre of Novi Sad, where the buildings were predominantly built in the second half of the 19th century and the first half of the 20th century, Thus, the newly built buildings significantly impact the urban transformation of Novi Sad which was once called "Serbian Athens" [16]. There were intensive urban changes in Petrovaradin at the main street where the buildings were pulled down and replaced with newly built three or four-storey residential buildings which occupied a high percentage of the municipal building land. Petrovaradin was slowly transformed from a settlement with dominant detached houses with backyards and gardens into a settlement with multi-storey residential buildings which offered little or no space for social interaction of the people in the vicinity. Intensified construction led to doubling the price of flats in the last two or three years (Figure 4).



Figure 4. Pupin Palace in Novi Sad and re-urbanisation of Petrovaradin

CONSEQUENCES AND PROBLEMS OF URBAN CHANGES

Urban changes caused additional problems in Novi Sad. Among huge problems were the lack of parking spaces and heavy traffic in the city. The deficiency of parking spaces was solved by turning green areas into parking spaces which created additional problems. Urban transformations of Novi Sad which occurred in the last two decades led to a partial loss of its recognisable identity as an arranged and organised city. That was the problem of many postsocialist cities which became similar to other cities due to the globalisation process.



Figure 5. Deficit of space for social interaction and lack of parking spaces

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All cities in globalization gained the features of modern capitalist cities with similar buildings of the same style and architecture [17]. An additional problem was the population increase which was not accompanied by available infrastructure capacities, such as roads, sewage systems, public buildings, and health care and education institutions. The last two decades, especially the latest recorded the "invasion" of residential housing construction. Newly built residential housing objects occupied a high percentage of the available construction sites. That additionally reduced green areas in the city, increased deficiency of parking spaces for higher concentrations of apartments as well as causing an

CONCLUDING REMARKS

Urban changes which occurred in the last several decades in Novi Sad were introduced despite the disapproval of experts and the citizens. Demolitions of buildings were conducted according to the level of attractiveness of the site and the level of interest of the investors with the consent of the authorities. Frequently such radical changes, e.g., the construction of the Pupin Palace, faced resistance of both experts and inhabitants, but they were not successful enough to save the objects intended for demolition. After several unsuccessful attempts to preserve the sustainable identity of Novi Sad, the citizens finally succeeded in preserving the sports business centre SPENS, although the and authorities had the intention to tear it down.

So far great damage was done to the cultural and historical identities of Novi Sad and Petrovaradin because certain objects were demolished. Certain increase in the number of cars per household (Figure 5). Reduction of green areas and increase in car numbers led to the increase of air pollution. Air pollution was recorded in all cities in Serbia in recent years. There was a reduction of space between buildings intended for free time and social interactions, which was limited to passages only. It became a problem for children, the younger population as well as the elderly population who had had more space for social interactions according to the previous urban plans (Figure 5). The aforementioned problems and numerous other problems demand to be solved immediately and thus improve the living conditions in the city.

objects were under protection, e.g., Komunalna bank, reed houses, old German houses, etc. However, there were long periods without investments into those objects and they deteriorated and eventually were pulled down. The inhabitants also wanted to protect green areas intended for children's playgrounds or dog walking. In certain parts of the city, they succeeded, but in others, they did not.

Intensification of residential housing construction occurred in other cities of Serbia as well. The process itself was not the consequence of the increase in the population numbers, which was the characteristic of a small number of cities in Serbia, but the consequence of economic changes and increased demand for apartments which further led to the increase in the price of the apartments.

REFERENCES

- [1] Militar, T. Novi Sad na raskrsnici minulog i sadanjeg veka. Gradska biblioteka u Novom Sadu, Novi Sad, 2000.
- [2] Generalni plan Grada Novog Sada do 2021. godine. Sl. list Grada Novog Sada, br. 24/00.
- [3] Generalni urbanistički plan Novog Sada do 2005. godine. Sl. list Grada Novog Sada, br. 16/85.
- [4] Generalni plan Grada Novog Sada do 2021. Godine prečišćen tekst. Sl. list Grada Novog Sada, br. 39/06.
- [5] Statistical Office of the Republic of Serbia, Comparative Review of the Number of Population of the Republic of Serbia 1948, 1953, 1961, 1971, 1981, 1991, 2002 and 2011, Book 20, Belgrade, 2014.
- [6] Statistical Office of the Republic of Serbia, Comparative review of the number of households 1948-2011 and dwellings 1971-2011, Book 21, Belgrade, 2014.
- [7] Internet 1: https://bif.rs/2012/04/gradovi-u-srbiji-elite-i-sateliti-3/
- [8] Večanski, D., 2020. Višenamenski prostor u objektu Češkog magacina u Novom Sadu. Zbornik radova fakulteta tehničkih nauka, 35 (2), pp. 273-276.
- [9] Ramušević, A., Reaktivacija objekta nekadašnje Kožare u Novom Sadu. Zbornik radova fakulteta tehničkih nauka, 35 (2), pp. 269-272, 2020.
- [10] Ličina, J., Revitalizacija ranžirne stanice u Novom Sadu u coworking prostor. Zbornik radova Fakulteta tehničkih nauka u Novom Sadu, 34(02), pp.272-275, 2019.
- [11] Garača, V. Narušavanje turistički atraktivnih ambijentalnih celina Novog Sada. Turizam, 9, Časopis Departmana za geografiju, turizam i hotelijerstvo, Prirodno-matematički fakultet, Univerzitet u Novom Sadu, 2005, pp.130-133.

- [12] Statistical Office of the Republic of Serbia, Municipalities and regions in Republic of Serbia, (Opštine i regioni u Republici Srbiji). Beograd, 2002.
- [13] Statistical Office of the Republic of Serbia, Municipalities and regionas in Reoublic of Serbia, (Opštine i regioni u Republici Srbiji), Beograd, 2020.
- [14] Kostreš, M. & Reba, D. Housing for the new social-economic elite a case study of Novi Sad. Facta Universitatis, Series: Architecture and Engeneering, 8(3), pp. 329-343, 2010.
- [15] Nedučin, D., Carić, O., Kubet, V. Influences of gentrification on identity shift of an urban fragment a case study. Spatium, 21, p. 66-75, 2009.
- [16] Polić, D. & Stupar, A. Urban heritage reconsidered: redefining the planning approach to historical areas of Novi Sad. Spatium, 33, June, pp. 92-99, 2015.
- [17] Nedučin, D. & Krklješ, M. Post-socialism and urban transition: transforming the socialist city. Facta Universitatis, Series: Architecture and civil engineering, 15(3), pp. 347-357, 2017.