

SPATIAL AND FUNCTIONAL STRUCTURE OF RURAL SETTLEMENTS IN MUNICIPALITIES OF NIŠ

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Abstract. *Rural areas represent areas that are different from other areas in terms of economic, social, demographic and cultural development. The differences are determined by multiple factors - geomorphological characteristics, population, economic structure, infrastructure and utilities as well as the developmental potential of certain areas, all of which present the basis for the development of strategic plans. This paper discusses main characteristics of spatial and functional structure of rural areas situated within the municipalities of Niš. Many settlements, even when they stand next to each other, differ in terms of their inner organization and structure. But also, there are many elements that are common for the settlements in a certain area. The aim of this paper is to analyze functional and spatial structure of these settlements and to point out their similarities. Influence of the geographical location and historical background will be also analyzed. Because of their specific terrain conditions and due to the influence of historical events, these settlements had a very strong impact of Ottoman architecture and some of the evidence are present in their structure even today. On the other hand, because of their favorable location, air pollution is lower than in the cities which makes the quality of life better.*

Key words: *functional structure, spatial structure, rural settlements, physical organization*

1. INTRODUCTION

The city of Niš is one of the cities in Serbia that has a rather long history and a large number of rural settlements. This city is located at the intersection of very important historic roads which used to connect different parts of Roman Empire, achieving status of the route of highest importance during the Ottoman Empire rule. Owing to the significance of this area, throughout the history it has always been populated and many monuments are

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left behind as a reminder of the numerous historical events that took place there. There are many buildings and memorials in the surrounding rural areas of Niš but due to the lack of funds they are not sufficiently promoted. Rural settlements in the Niš area had very “vibrant” history and many past events have left their mark on villages’ physical structure which is visible even today. The wider territory of Niš is situated at different altitudes - ranging from 173 m near the village of Trupale, which is also the confluence of the Nišava river into the South Morava river, up to 1,523 m above sea level on Suva planina mountain where the highest peak Sokolov Kamen (RAPP, 2012) is located. As a result of the given terrain structure, many villages have specific spatial organization and distribution of functions.

The aim of this paper is to define the main characteristics of spatial and functional structure of rural settlements in the Niš region and to highlight the influence that various historical and political events have had on their physical structure. According to the latest census, in the wider area of Niš there are 69 rural settlements within five municipalities. These settlements are the main hub of agricultural production and they represent one of the most important “heritage sites”. These settlements are not merely the witnesses of historical events - they were also an important link in the socialist system in which every settlement was at the same time a community center with almost all urban functions developed. While analyzing the structure and location of these settlements, it becomes evident that some of the rural settlements have become a part of the suburbs but nevertheless still face the problem of insufficient economic and communal development. This analysis covers all of the settlements and observes their position, demographic, functional and spatial characteristics according to which a model for their classification and comparison was made. Using comparative analyses of settlement plans and statistical data, settlements were classified into a few categories based on their structure, size and function. Comparing statistic results from the two latest censuses, the depopulation degree was determined which in turn has a significant influence on the functional development. By visiting the villages and field analysis, the spatial distribution within settlements was determined as well as their architecture.

2. RURAL AREAS

In the 1995-2009 period there is an evident increase in the number of underdeveloped municipalities south of the Danube - the Mountain Region of Serbia. The underdeveloped municipalities are concentrated mainly in the eastern and western part of Serbia as well as in the border areas (Pantić, 2014). A large number of municipalities, according to the Spatial Development Strategy of Serbia are classified as a group of “devastated municipalities”- municipalities in which due to the problem of economic underdevelopment unemployment is very prominent because of which they also came to be known as the “municipalities of the unemployed”. The main problem is the uneven regional development of Serbia, which creates imbalance in the economy of different municipalities, and it is necessary that strategies be focused on accelerating balanced development in order to reduce underdevelopment of the affected municipalities (Miletić, et al 2009). By definition (Plan for Strategy for Rural Development of Serbia for the period 2009-2013), rural areas are defined as areas where the main physical and geographical characteristics of the land are forestry,

animal husbandry and agriculture. According to this definition 2/3 of the territory of Serbia is characterized as a rural area, with 43% of the total population living there. In accordance with the programs and strategies of the European Union and according to OECD (Organization for Economic Co-operation and Development), a rural area is defined as an area where the population density is less than 100 inhabitants/km². According to this criterion, 85% of the territory of our country can be defined as rural area where about a half of the total population lives with average population density of less than 100 inhabitants/km². In Serbia, 130 out of 165 municipalities are characterized as rural, and within these municipalities there are more than 3,000 settlements that have rich natural resources - not only agricultural land and forests, but also rich biodiversity and important natural and cultural heritage. From a total of nearly 4,600 rural settlements around 1,200 are on the verge of extinction, because they have small population whose age structure is above 60-70 years. According to the census, there are about 50,000 abandoned houses in rural areas and 150,000 facilities where no one lives. Most of these settlements have no basic utility infrastructure, and more than 90% do not have a library, a community center, all eight grades of elementary school and a clinic - medical station. Upon defining rural areas, it is necessary to identify various types of rural areas that prevail in Serbia, because rural areas are not homogeneous. There are differences among them and these may be due to various factors such as geographical characteristics, accessibility, population changes and migration, infrastructure, different environmental conditions, favourable or disadvantaged agricultural structures, diversified local economies (Efstratoglou et al, 2007).

3. RURAL SETTLEMENTS IN THE MUNICIPALITY OF NIŠ

The City of Niš has 69 settlements which are categorized as rural settlements. In the total city area of 597 km², urban area is 148 km² and this area is divided into 5 municipalities: Medijana, Pantelej, Palilula, Crveni Krst and Niška Banja as well as suburban settlements Brzi Brod, Nikola Tesla, Bubanj, 9. Maj, Donja Vrežina, Donji Komren, Medoševac (Department for city planning, 2011). According to the data from Government Statistic Bureau, population density in the urban area is 1,500 inhabitants/km², while in the rural areas it ranges between 70-80 inhabitants/km² (RZS, 2014). Because of the terrain configuration, approximately 25% of total area is forest land which is located on highest peaks of the surrounding hilly terrain. From the total city area, only 14% - 8,500 ha is defined as urban city land which is a very small area considering the fact that Niš is the second largest city in Serbia and the center of the Nišava District. From all settlements, village Koritnjak (Martinović, 2004) is the only settlement that has no permanent inhabitants and this situation has been the same since the 2002 census. All the rural settlements are characterized as “non-urban – other” (RZS, 2014) but some of them have merged with the city due to the spreading of the city territory and now have the status of suburbs. In table 1 classification according to the number of inhabitants and percentage distribution are shown.

Table 1. Classification according to the number of inhabitants and their percentage distribution

Dwarf village	Small village	Middle-small village	Middle-big village	Big village	Suburbia
0-100 Inh	100-500 Inh	500-1000 Inh	1000-2000 Inh	2000-3000 Inh	>3000 Inh
6 (8,8%)	25 (36,23%)	13 (18,84%)	15 (21,74%)	5 (7,24%)	5 (7,24%)

Source: authors

3.1. Spatial - physical organization of rural settlements

Depending on the position and spatial organization there are several types of village settlements (Kojić, Simonović, 1975): completely scattered type, scattered type, semi-compact type, compact type and completely compact type. The map of different types of rural settlements in municipalities of Niš regarding their spatial-physical organization (Fig. 1) shows their spatial distribution. Most common types of settlements are dense/compact and semi dense/linear ones. On the hilly terrain – like the municipality of Niška Banja, villages have a scattered structure, one of the reasons also being small population.

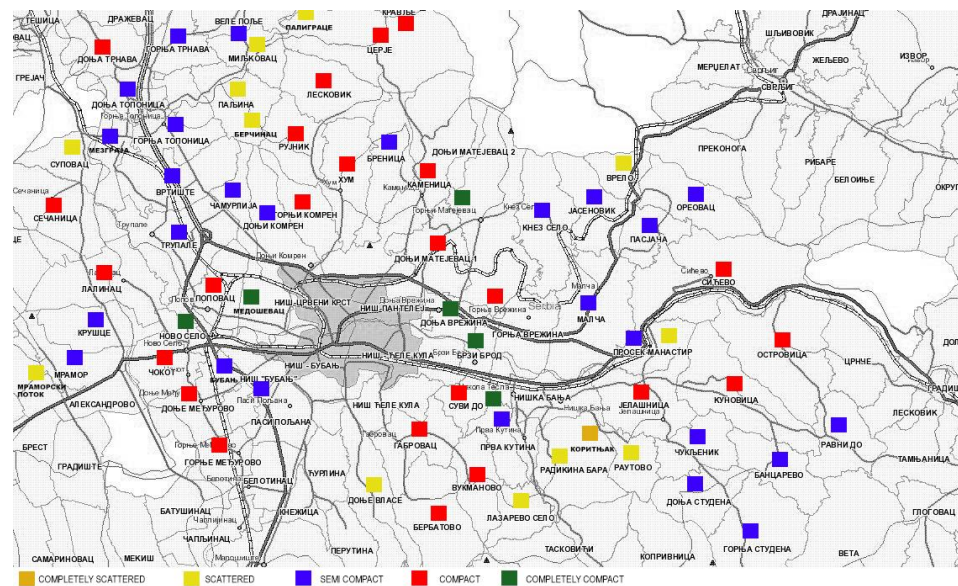
**Fig. 1** Map of different types of rural settlements in municipalities of Niš regarding spatial-physical organization of rural settlements (Source:authors)



Fig. 2 Different types of settlement a) Compact type of settlement Gornja Vrežina
b) Semi compact - Linear type of settlement Gornja Studena; (surce: www.geosrbija.rs/)

The compact type of settlements is located mostly along the river banks and on the relatively flat terrain (Fig 2 a)). These settlements have completely irregular structure – traffic network and plot areas, but population density is very high and agricultural land is on periphery and it is not connected with household plots. Linear settlements (Fig. 2b)) are more often situated on hilly terrains where there is only one road linking a few settlements along which all the households are located and often there are no other traffic networks. This type of settlements is also present along the main roads (Mačča, Sićevo) because all the residents are constructing next to the main traffic ways. Agriculture plots are often in the extension of the household and because of the terrain configuration they are often declining.

Villages are positioned within the territories of all municipalities without special regularity. Small villages with a population of 100-500, which are most common – 25 in total, are located on the periphery of the four municipalities, mainly on the border with neighboring municipalities - Gadžin Han, Aleksinac, Svrljig, Merošina and Doljevac. Small villages are mostly situated on the territory of the municipality Crveni Krst and on the border with the municipality of Aleksinac. It is interesting that in this municipality there is a spa Topilo that formally has no status of settlement and is treated as a part of the settlement Kravlje, which has been marked as a great potential in the development plans of the municipality Crveni Krst and even in the plans for tourism development in the city of Niš. In the municipality of Palilula, most of the small villages are located in the part that is called Zaplanje which is known for its high hilly terrain and unspoiled nature. In the municipality of Pantelej small villages are located on the slopes of Svrljig mountains along the regional road Svrljig-Niš-Zaječar. Medium, large and small villages are located closer to the city on the easily accessible terrain and these villages are not at high altitudes - up to 400m. Some of these villages are located along the regional roads. As for the large villages in which the population is between 2,000-3,000 - there are only 5 settlements of this type 3 of which are on the territory of the Crveni Krst and other two in municipalities of Pantelej and Palilula. These villages are only 8-10 km away from the town center

which is not much for big cities, but in the case of the city of Niš enough to be treated as suburban rural areas. The settlements with over 3,000 inhabitants have the status of urban settlements and due to spreading of the city territory they have become a part of the urban sprawl where they gradually develop urban functions. However, at this moment they still have dominant rural character where agricultural production is still present.

On the other hand, the Ottoman rule had a great influence on the spatial and physical structure of these settlements. During this period they were already formed which was also written in two travel books from that period (Kanic, 1985; Čelebi, 1967). Villages in the municipality Pantelej - Kamenica, Gornji and Donji Matejevac, Malča, Knez Selo and many others still face many problems which have arisen as a consequence of the inherited oriental structure. More than 30% of the buildings were built according to the principles that were enforced during the reign of the Ottoman Empire. In the village of Gornji Matejevac even today there is a division into two “mahalas” - left and right one, divided by a stream which springs in the mountains above the village. These two mahalas are also functionally independent - each has its own center, a cemetery and a trade center which will be discussed below. This village is a hilly village and as a consequence there is a network of winding streets adapted to the slope of the terrain. Most of the houses that are located in the old part of the village have a fence over 2m tall with one window facing the street. Almost all of the streets are winding and quite narrow with no sidewalks. Because there were no water supply systems, on the crossing of few streets there were public drinking fountains and they were the only places for social gathering of the residents. As the villages do not have fully implemented sewer system yet, along the streets there are two side channels to collect storm water. In 99% construction line is overlapping with regulation line and that prevents extension of street regulation width. Newly constructed network structure and shape were caused by illegal and irregular construction and most of the streets have a rather variable width. (Figures 3 a),b))



Fig. 3 a) Gornji Matejevac left mahala (red) / right mahala (blue) (source: www.geosrbija.rs/)
 b) Aerial view of settlement (<http://niskevesti.info/wp-content/uploads/2015/01/Gornji-Matejevac.jpg>)



Fig. 4 An abandoned house in the village Donji Matejevac (source: authors)



Fig. 5 An abandoned house in the village Koritnjak (source: <http://www.showme.rs/wp-content/uploads/2015/07/29724636.jpg>)

Specific architecture of the houses from this area is gradually disappearing and the houses that were built in this specific construction manner are now ruins (Fig. 4,5). The traditional type of houses is still present in hilly and mountainous areas and in other villages there are a few in each, but due to the condition of the structures they are most often abandoned. In the XX century, during the period of Communism, villages became important centers and they were organized as independent units that had almost all urban functions developed within their territories. During this period, the inherited structure was improved and many new buildings were constructed, which are now the owned by the village. Physical structure changed and all the settlements had centers for social gathering where all the main administrative and trade facilities were located. Specific geographic position of these settlements creates a very favorable ambient for living because there are no harmful emissions and life quality is at a high level. Traffic is not so dense and most of the houses use wood for heating during the winter because they are not connected to the city heating plant. Also, all of the manufacturing plants in rural areas are based on “easy processing” so there are no harmful emissions. The main reason for illegal construction is the lack of plans because most of the villages have only General Urban Plan. During the last year, General detailed plans were developed for almost all suburban settlements but consequences of illegal construction are nevertheless still visible. Depopulation also has a huge impact on the physical structure of these settlements.

3.2. Functional organization of rural settlements

According to the classification (Simonović, 1980) villages can be divided into the following types: **Primary villages** where main activity is housing and agriculture; **Villages with rural centers** which in addition to agricultural and residential functions have developed health, cultural, and commercial functions that have limited capacity; **Community centers of rural settlements** which in addition to the previously defined primary function unify the surrounding villages; **Tourist or spa villages** in addition to basic functions have tourist, recreational and health function; **Rural village as a municipal center** is the village where an administrative seat of the municipality is located; **Suburban villages** that can be of an agricultural type, or mixed type where agriculture is present but to a less extent, and where new activities and urban functions are developing.

In the municipalities of Niš, most common are Primary villages and Villages with rural centers. Primary villages are located at higher altitudes – on the slopes of the surrounding mountains and villages with rural center along the banks of the river Nišava or along the important roads. In many cases, village settlements are defined as settlements where agriculture is the main activity and there is no further classification. In some of plans and projects they are not even considered for development and they were often marginalized. In most of the European countries, there are many strategies for rural development and also different rural areas are having different classification (Mitković et al, 2002).

Based on the classification according to Simonović, in municipality of Niška Banja, the community center of rural settlements in terms of population and functions is the village of Jelašnica. Other villages Kunovica, Koritnjak, Bancarevo, Manastir, Prosek and Čukljenik gravitate towards Jelašnica and they are functionally associated with it. Prosek village, located on the banks of the river, was famous for its numerous water mills, and the mill Janjske which still exists today dates back to the XV century of the Ottoman Empire rule (Martinović, 2004). Villages of Gornja and Donja Studena are well known for mountain tourism because in their “culture centers” there are branches of some hiking clubs from Nis (Turnšek, 2007). Sicevo is also one of the centers towards which gravitate the villages of Ostrovica and Ravni Do. Next to the village of Sicevo there is a hydroelectric power plant "Sveta Petka" constructed at the beginning of the XX century, in which there are preserved authentic electrical transformers and which is put under the protection of the city (Roslavcev, 2008)

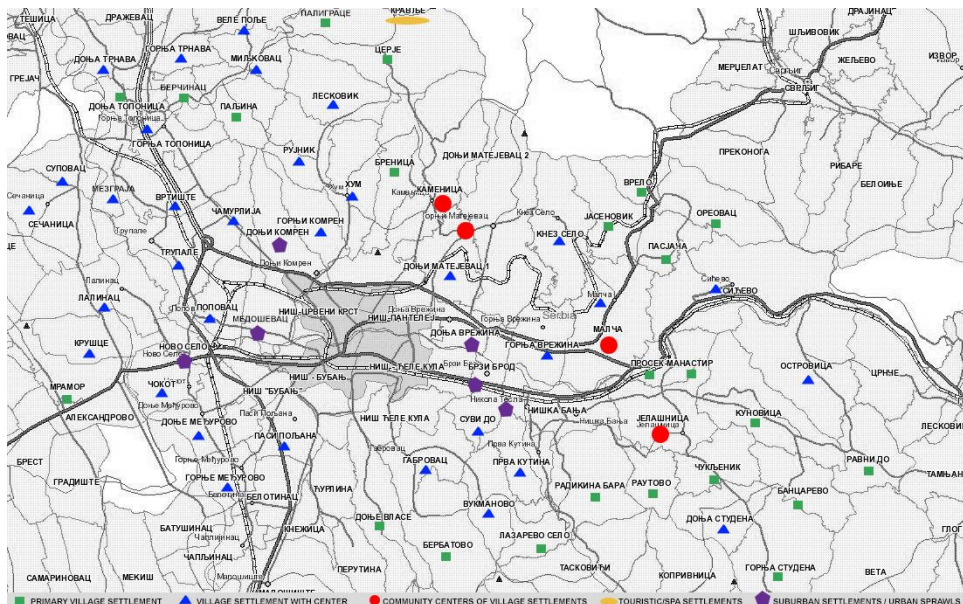


Fig. 6 Map of different types of rural settlements in municipalities of Niš (source: authors)

Settlements in the municipality of Palilula are unplanned - formed spontaneously, mainly along the roads and the banks of the river South Morava. Exceptions are the

villages Gabrovac, Berbatovo, Vukmanovo and Donje Vlase which arose in the hilly part of the municipality along the borders of the municipality of Gadžin Han. Krušće, Donje and Gornje Međurovo, Mramor, Lalinac, Čokot and Sečanica gravitate towards 9. Maj. Gabrovac is also a center towards which gravitate Berbatovo, Vukmanovo and Suvi Do, as well as settlement Pasi Poljana to whom gravitate Gornje Međurovo, Donje Vlase and Bubanj Selo (Fig 6.). More than 50% of the products on the city markets comes from the villages on the territory of this municipality. In the village of Bubanj Selo one of the city landfills is situated but it is not maintained in an appropriate manner due to which the quality of life is reduced significantly. In the area of Donje Međurovo there is an industrial zone which was formed during the past decade and in the village of Mramor there is a zone of services and production. From the total of 15 settlements in this municipality only 4 have healthcare, in all of them there are educational facilities, in 4 of them there are all 8 grades of primary school and 8 settlements have an administrative office for basic services.

The municipality of Crveni Krst is located in the north-western part of the city and it has 23 rural settlements of which Donji Komren represents suburb of mixed type and Medoševac suburb of agricultural type. The settlement Donji Komren is the community center towards which gravitate Gornji Komren, Hum, Miljkovac and Čamurlija, as well as the village of Gornja Toponica towards which gravitate Donja Toponica, Supovac, Donja Trnava, Vele Polje, Berčinac, Paljina and Mezgraja. Vele Polje stands out as a major settlement with the center toward which gravitate Kravlje (together with the spa Topilo) Miljkovac and Paligrace. Towards the village of Hum gravitate Rujnik and Leskovik while towards the village Supovac gravitates Sečanica, which is located in between the municipalities of Palilula and Crveni Krst. As evidence that life existed on this territory in the earlier period there is an archeological site Humska Čuka where cultural layers from III millennium BC were found. From the total of 23 settlements in this municipality only 8 have healthcare, in two of them there is no teaching and in 5 there are all 8 grades of primary school, while 12 settlements have an administrative office for basic services.

Settlements in the municipality of Pantelej are generally of a compact type and located between the city urban area and the border with the neighboring municipality of Svrljig. The terrain is hilly - mountainous and the altitude ranges from 214m in Donja Vrežina which is the part of town, up to 847 m above sea level in Knez Selo which is located on the slopes of the Svrljig mountains. In this municipality, the most common are small and medium-sized villages with the exception of Gornji Matejevac and Donja Vrežina. Gornji Matejevac is the center of the village community and towards it gravitate Kamenica, Knez Selo and Donji Matejevac. Kamenica is a secondary center towards which gravitate Brenica and Cerje because of the school and health station. Towards the settlement Malča gravitate Oreovac, Pasjača, Vrelo and Jasenovik, while Gornja Vrežina gravitates towards Donja Vrežina and urban settlement Durlan. Primary villages in this municipality are Cerje, Brenica, Pasjača, Oreovac, Jasenovik and Vrelo. On the territory of Knez Selo there is a special hospital. Between Donja and Gornja Vrežina there is a zone of services and production Donja Vrežina which has also been marked as industrial zone in future plans. In the village of Kamenica there are the remains of a Roman aqueduct which supplied the summer residence with water and today this settlement does not have an adequate water supply system. During the Ottoman period, the huge Čegar battle took place right in this area. In Gornji Matejevac there is a Latin Church from XI century which survived the period of the Ottoman rule. The region Kamenica-Matejevac-Malča was a very famous wine-growing region whose wine

used to be exported from the former Yugoslavia. Aside from the rich cultural heritage of the region there are significant natural resources such as the unexplored cave Cerjanska pećina in the village of Cerje and Kamenički vis, one of the mountain peaks on which the branch of meteorological station of Niš is placed and where there is a plan to develop a ski resort. From the total of 23 settlements in this municipality only 8 have healthcare, in all of the villages there is teaching but only in 4 all 8 grades, and 12 settlements have an administrative office for basic services.

On the map of functional organization of the settlement Kamenica we can see the functions that are most common in rural settlements of Niš and the way they are distributed in space. Dominant functions are housing, animal husbandry and agricultural production and this settlement is of a compact type. There is an entire network of narrow and widening streets forming irregularly shaped blocks which are further divided into plots with various shapes and areas. These plots at first belonged to one family, but throughout the course of time they were divided into smaller plots for inheritors and as a result, their physical structure is very chaotic nowadays, as it can be seen on the map. The right part of the settlement had emerged earlier and it is completely in Ottoman style, while the left part emerged along the road which connects Kamenica with villages Brenica and Cerje as well as with the urban territory. All other functions – trade, healthcare, the administrative office, the culture center and the old school are located along the road. The new school, which was built four decades ago is located on the periphery. The church and the cemetery are on the outskirts of the village, as well as the service zone which is “closer” to the urban area (Fig 7.).

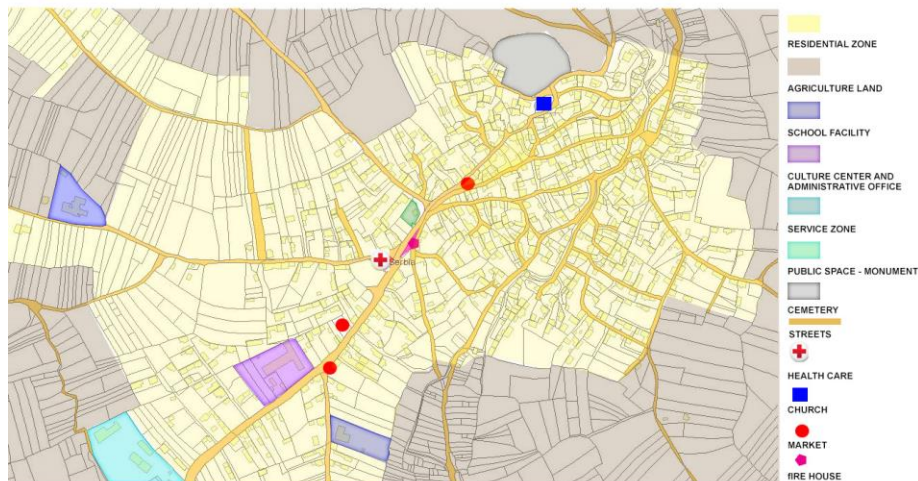


Fig. 7 Map of functional organization of settlement Kamenica (source: authors)

The unsolved legal ownership issues present the main problem and even if there were investors and an initiative to do something there would not be a legal base to take action. Kamenica has between 1.500-2.000 inhabitants (RZS, 2014) but most of them live in the city and have houses in the village which are empty. According to the statistical data and

field analyses more than 100 houses are empty – nobody lives in them and depopulation trend is highly pronounced here. This village also once had a fire station which used to serve a huge radius – many surrounding settlements.

Table 2 Number of settlements with increasing and decreasing population in rural area in municipalities of the city of Niš according to data from Republican Bureau of Statistics in last two censuses

Municipality	Niška Banja	Palilula	Pantelej	Crveni Krst	Medijana
No of rural settlements	17	15	13	23	1
Increasing	1 (5,88%)	6 (40,00%)	1 (7,69%)	4 (17,39%)	1 (100%)
Decreasing	15 (88,24%)	7 (47,67%)	12 (92,31%)	18 (78,27%)	/
No change	1 (5,88%)	2 (13,33%)	/	1 (4,34%)	/

Source: authors

Depopulation is one of the reasons because of which some of the functions are “disappearing”. Residents of a working age and young people are leaving their settlements and moving to urban areas, so consequently average age structure in many settlements is above 60 years. On the other hand, because of the lack of infrastructure and communal utilities and due to deficiency of jobs, young people and working age people are increasingly leaving villages in order to find a job and get education. In Table 2 statistical data according to last census are shown where it is obvious that a large number of settlements has a decreasing number of residents in all the municipalities. This problem is the most prominent in the municipality of Niška Banja where there even are villages without inhabitants. Decrease in population has an enormous impact on village development because it leads to the extinguishment of the main functions. This is not just the case in this municipality, many areas in Eastern and Southern Serbia are facing the same problem and there are even more extreme cases where the entire municipalities are disappearing (the case of Majdanpek).

4. TOURISTIC POTENTIAL OF RURAL SETTLEMENTS

Agricultural production is promoted as the main activity in rural settlements together with preservation of traditions and local crafts in order to promote the heritage of rural areas. The increasing demand for rural tourism stipulates the conditions for development of tourism as a compound of traditional values and modern needs. In EU countries, rural areas are not economically unequally developed with regard to the urban areas and they are inhabited by large numbers of people. In Serbia, more than $\frac{3}{4}$ of the territory is rural but this area is mainly composed of underdeveloped municipalities, border municipalities and villages with less than a hundred inhabitants (Gulan, 2015.). Analyzing the situation at these locations and according to the main rules of heritage classification (Nenadović, 1980) – built and cultural we can say that in these areas heritage can be classified into:

- *Housing-ambient heritage* – there are many villages that still have houses made of mud and reed, covered with wooden tiles or tiles from nearby fired clay. These houses are especially interesting in mountainous areas, where they are adjusted to

the terrain and built with huge courtyards. Many of the streets are still paved with cobblestone and on one side there are canals for atmospheric and waste water. Entire village composition has an oriental spirit but because of constant renovation, owners of many houses have painted them, installed new insulation, taken down the tall gates and started changing the ambient of the past times.

- *Cultural and educational heritage* – a very significant period in development of villages in rural area of Niš was the period of communism. In that period many public halls were built and those buildings were main gathering points. Always located in the center, occupying a huge surface, they had the administration part, a small theater or cinema, cafes and sometimes even libraries. These structures were main cultural hubs where many events were organized and people could use these facilities for many activities. During the communist period in the village Sićevo, on the banks of the river Nišava an art colony was held every year and special building for the purpose of art colony was erected, which today is under the protection of city. (Prosen, 2007.)
- *Historical and monumental heritage* – evidence of long history of rural areas in Niš are present in almost every village. The oldest historical site is in the village of Hum where the archeological site Humska Čuka from the period between stone and metal age is located. This site is under the protection of the state but it still cannot be found on the touristic map. Near this site there is also the village of Miljkovac where the fortifications Gradište and Železnik are located, as well as many others which were mentioned previously in the paper.
- *Industrial heritage* – during the XX century many buildings for production were built in rural areas. Since agriculture was the main function in villages and the land is quite fertile, tones of fruits were produced. After the World War II many villages constructed their own wineries and warehouses for processing fruits.
- *Natural heritage* – thanks to the topography and a very pleasant climate, this area has a rather rich natural environment. First of all, near Niš there is the spa of Niška Banja so the entire area has geothermal waters. In the rural area there are two villages - Kravlje and Topilo which have thermal healing water and status of spa.

The population in this area is of predominantly Serbian nationality, orthodox religion and it is known by traditional hospitality. Unfortunately, general culture in tourism is still undeveloped, especially when it comes to an organized reception of tourists. The habit of organized engaging in tourism and receiving tourists by the natives exists only in the Spa of Niš. (Dinić et al, 2001). In order to ensure further development and prevent the denial of traditional and inherited structure, according to Milorad Ribar, it is necessary to pay attention to the rationalization of modern constructions - traditional way of building should not be put aside but modern principles can be applied within these facilities to rationalize the existing facilities. New facilities should be in compliance with the existing ones and at the same time simple, typical buildings with room left for expansion and upgrade. Rural tourism can also be improved by creating cultural itineraries which allow exploration of local heritage and connection between villages (Rohac, 2011). In order to develop and promote rural tourism, but also to maintain existing residents in villages, it is obligatory to have at least main healthcare activity and possibility to have main education. It is also necessary to organize unique village centers that can be common for several

smaller settlements. The process of animating and developing villages is very complex and it requires involvement of few different professions (Marić, 2007).

In 2006. National Strategy for tourism development in Republic of Serbia (Ministarstvo trgovine, turizma i telekomunikacija, 2006) was adopted and until today it remains the only strategy in this sector. This strategy recognizes rural tourism as great potential for tourism development in general and that rural tourism has potential in mountain areas where there are national parks or protected areas which can be used for winter resorts in order to promote skiing and other winter sports or as resorts for sport preparations and training camps during the summer. Another way of developing rural tourism is by investing in spa settlements that could promote health tourism and where tourist can also come for rehabilitation and treatment. The main idea is to promote rural areas as an affordable way of tourism using some modern international strategies that have already been implemented. There are no strategies for animating entire rural areas which have a great heritage fund and long history and which are not so close to bigger cities. There are no suggestions to overcome infrastructure problems and to improve protection of traditional ambient that these settlements have. Promoting only the protected areas on the other side has caused expansion of illegal construction which endangers the natural landscape.

In 2015. a draft of National Strategy for tourism development in Republic of Serbia for period 2016-2025 was presented (Ministarstvo trgovine, turizma i telekomunikacija, 2015) but it has not been adopted so far. This new strategy recognizes rural tourism as one of the main activities for developing the touristic offer of our country. Rural tourism is not presented only as an affordable way of tourism but also as a developing potential for every region in Serbia. As one of the weaknesses for tourism development this Strategy recognizes the lack of infrastructure in rural areas, and not so good connections between rural and cultural tourism. One of the instruments for reducing depopulation, according to this draft version is rural tourism which could bring people and visitors to these areas. Start-up investments in non-agriculture activities and in small businesses have been suggested as measures that could help the improvement of rural tourism.

In 2011 the Master plan for sustainable development of rural tourism in Serbia was published. This program is based on research of the current state in rural areas in order to define strategies for rural tourism improvement and heritage promotion. Funds are the main issue so better public-private partnership must be achieved. Beside the funds, the local community must be actively engaged in the entire process of development and promotion. Also, by making everything sustainable, landscape remains preserved as well and there are no negative impacts of rural tourism. (Ministarstvo finansija i ekonomije, 2011.)

Some ambient sets in Serbia possess such developmental values that, with adequate valorisation, may take part in international developmental processes. Their ecological connections and influences are very strong. Isolation of these areas from main routes of traffic and development is precisely what gives them their autochthonous quality with a rich natural and historical heritage (Todorović et al, 2009). Recognizing the diversity of rural areas is an important element of the rural development policy. For effective rural strategies and policies to be developed and implemented in rural areas, it is necessary to recognize these differences, identify their strengths and weaknesses and develop strategies which incorporate them (Bogdanov et al, 2008).

5. MAIN URBAN PROBLEMS OF RURAL SETTLEMENTS IN NIŠ MUNICIPALITIES

Analyzing the location, physical and social structure of these settlements, it is obvious that within 69 settlements around the city of Niš there are many similarities but also some significant differences. All the villages have a long history and just like the city urban pattern, their structure evolved from small settlements to even suburban areas. During the evolution process, these settlements have increased their built surface but this territory spreading wasn't followed by infrastructure development. Village pattern expanded adjusting to the terrain without any order or plan document which now creates various problems with building legislation. Most of the villages are covered only with general urban plan where the main land purpose is defined which is basis for illegal construction. These settlements are organized as compact or linear settlements and their physical structure is adjusted to the terrain. Their spatial and functional organization is the result of many past events, both historical and political, and because of that every settlement represents a unique ambient unit that has specific qualities. Their structure mainly emerged along the roads that connect the settlement with neighboring settlements or towns. Today we have settlements that are not far from city center but their main function is still agriculture and animal husbandry and they are not part of the urban fabric. Almost all settlements have markets, schools with at least 4 grades, some of them have healthcare centers and administrative offices. 48 of 69 settlements have culture halls which have, unfortunately, been abandoned and left to ruin. Many of the villages have a service zone of warehouses where there is easy processing or storage of goods. The street network is irregular and often without sidewalks with canals for sewage and atmospheric water on the both sides. The road network is not very developed, so many settlements are connected by just one road which is often impassable during the winter months because of the snow. Villages that during time because of city expansion became suburban settlements (part of urban sprawls) face almost the same problems like other villages. These settlements differ only in population while in terms of development both infrastructural and functional are on the same level. Some of the plots are built against all the rules and "streets" width 3 - 4 m are only connection between some parts of the settlement. In the city of Niš area 7 settlements – approximately 10% of total rural settlements became suburbia but still they do not have all the characteristics of urban areas.

On account of the rich cultural and historic heritage a question arises: Is the rural heritage developing rural tourism or is the rural tourism protecting and promoting rural heritage? Their connection is inseparable because by bringing people into rural areas we are promoting the heritage and helping it survive in isolating conditions while at the same time promoting the settlement in positive manner. Promotion of natural environment which is less polluted than the urban area can attract visitors and bring new residents into the rural areas. Rural tourism in Serbia can play a key role in the diversification of the rural economy, reducing unemployment, protecting and promoting natural and cultural resources, and reviving the villages.

6. CONCLUDING REMARKS

Based on the comparative analysis of the functional structure, spatial organization and identity of settlements and their blocks from different historical periods, and by observing the ways of their creation, several conclusions were drawn. Serbia has a large territory

defined as rural area concentrated south of the Danube River, which has a huge potential for equalization of regional development and creation of sustainable rural areas. In order to adequately protect access for the purpose of promoting the development of rural settlements, it is necessary to do the first classification of these areas according to the most significant characteristics - geographic location, demographic characteristics, available resources, communal and infrastructural facilities, cultural and natural heritage etc. However, it is not very easy to classify every settlement in a certain group because many of them used to belong to the more developed types but because of depopulation and village decay they are now primary villages. This is not only a problem in the city of Niš, but also a huge problem for almost all rural areas and it can also be applied to small towns which have become the devastated settlements of the "unemployed" because of the deindustrialization process.

To be able to effectively promote economic development, it is necessary to carry out the valorization of the current situation in order to determine the real state of affairs and identify any problems that could present a threat for the future development. When creating projects for balanced development of rural settlements, it is necessary not to use "universal" documents, but to treat each case individually in order to respond to all the specifics of a given area. Each of the underdeveloped municipalities has its own characteristics, so it is imperative that development strategies be created in accordance with the specifics of each municipality and that the municipality do not have to adapt to strategies, but rather strategies have a developmental effect on vulnerable municipalities.

In order to resolve the problem more effectively, plans and strategies must be taken for shorter time span because in some areas 10 years is a period in which a drastic change occurs. As more than 60% of the country's territory is occupied by rural areas, it is necessary to treat the uneven development as a problem of national importance and take the initial measures such as preventing process of population migration - depopulation of these areas, improve the conditions and quality of life - quality of the environment, actively recruit the local population and enable elderly residents better conditions for the continuation of agricultural production and husbandry, limit and direct the usage of natural resources and clearly define the zone of protection of natural heritage, promote sustainable rural tourism with the aim of reviving and promoting these areas etc. It is necessary that daily life as well as the long-term development be based on the usage of natural environment - natural factors at the same time respecting the created conditions, cultural heritage and traditions that give these areas their specific character.

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PROSTORNA I FUNKCIONALNA STRUKTURA RURALNIH NASELJA U NIŠKIM OPŠTINAMA

Ruralne oblasti predstavljaju područja koja se razlikuju od ostalih područja u smislu ekonomskog, socijalnog, demografskog i kulturnog razvoja. Razlike određuje više faktora - geomorfološke karakteristike i populacija, ekonomska struktura, infrastruktura i komunalna opremljenost, kao i razvojni potencijal pojedinih područja koja su osnova za izradu strateških planova. U radu su razmatrane osnovne karakteristike prostorne i funkcionalne strukture u ruralnim područjima koja su u opštinama grada Niš. Mnoga naselja, čak iako su jedna pored drugih, razlikuju se u pogledu njihove unutrašnje organizacije i strukture, ali postoji veliki broj elemenata koji su zajednički za naselja u određenom području. Cilj ovog rada je da analizira funkcionalnu i prostornu strukturu ovih naselja i da ukaže na njihove sličnosti. Uticaj njihovog geografskog položaja kao i istorijska pozadina biće takođe analizirani u radu. Zbog svojih specifičnih uslova terena i zbog uticaja istorijskih događaja, ova naselja su imala vrlo jak uticaj Otomanske arhitekture, a neki od dokaza su i danas prisutni u njihovoj strukturi. S druge strane, zbog povoljnog položaja, nivo zagađenja vazduha je niži nego u gradovima što čini kvalitet života boljim.

Ključne reči: *funkcionalna struktura, prostorna struktura, ruralna naselja, fizička organizacija*