



Nataša Živaljević Luxor, Urban Planning Institute in Nis, natalieluxor@gmail.com
Nađa Kurtović Folić, University of Novi Sad, nfolic@gmail.com

DIVERSITY OF RESIDENTIAL BLOCKS OF NIŠ PERIPHERY – CONTRIBUTION TO THE GUIDELINES OF FUTURE URBAN-POLICY

Abstract

The area of Niš, the third Serbian most populated city, has a dynamic topography. Located in a valley crossed by several rivers, surrounded by hills and plains, the rural settlements around the city, that were administratively integrated into it, are extremely diverse. The consequences of such variety are many, reflecting on residential block concepts and increasing everyday challenges in urban planning. In this paper, we analyzed the three villages for which urban plans were done for the first time in 2023. These settlements are located within a radius of about 10 km from the city center. This paper is a scientific elaboration of the urban plans that were presented as single exhibit at the annual international Salon of Urbanism, held in the Republic of Serbia, and was awarded by the Association of Urban Planners of Serbia in 2023.

Keywords: classification of settlement, urban planning, peri-urban area, rural development, block

РАЗНОВРСНОСТ СТАМБЕНИХ БЛОКОВА НА ПЕРИФЕРИЈИ ГРАДА НИША – ДОПРИНОС СМЈЕРНИЦАМА БУДУЋЕ УРБАНЕ ПОЛИТИКЕ

Сажетак

Подручје Ниша, трећег по величини града у Србији, карактерише динамична топографија. Обзиром да је град лоциран у котлини коју пресијеца више ријека, окружен брдима и заравнима, сеоска насеља око града, а која су административно интегрисана у градско подручје, изузетно су разноврсна. Посљедице такве разноврсности су бројне, и рефлектују се на концепт стамбених блокова и додатне свакодневне изазове у урбаном планирању. У овом раду, анализирали смо три села за која су, по први пут, израђени урбанистички планови током 2023. године. Ова насеља, налазе се у полупречнику од око 10km од центра града. Овај рад је научна разрада урбанистичких планова који су представљани као јединствен рад на годишњем међународном Салону урбанизма који се одржава у Републици Србији, награђен од стране Удружења урбаниста Србије на Салону урбанизма 2023.г.

Кључне речи: класификација насеља, урбанистичко планирање, периурбано подручје, рурални развој, блок

1. INTRODUCTION

The Balkan Peninsula has a rich topographic diversity and the area of Nish reflects that very well. Compared to flat Vojvodina or fully hilly Western Serbia, the area of Nish includes both hills and valleys - "a bit of all" types of terrains. The microclimate is milder than in most parts of the country. There are short, but snowy winters, early spring, and draughts in the summer, prevented by waters from springs and rivers – numerous but not particularly rich in water. Such circumstances create permanent challenge for urban planners and also have a strong effect on the overall development of the area.

Numerous migrations [1] and topographic diversity caused a great variety of living conditions and approaches between relatively near villages. The history of urban planning in Niš started approximately 150 years ago, however rural development received insufficient attention from the local authorities until a decade ago. It changed with the enlarging the administrative area of the city to 596,73km², incorporating numerous villages, and adopting the Spatial plan for the administrative area of Niš 2021 [2]. Global changes put peri-urban and rural development into new perspective. Urban plans have been arranged in 2022-2023 for three former villages for the first time: Kapetanove pojate (KP), Lalinske pojate (LP), and Radikina Bara (RB). They are situated within a radius of 10km from the city centre (fig.1). Although rather near to each other, their residential blocks significantly differ.

The planning was based on recognizing original patterns and identifying order in existing urban morphology, learning from it, and plan changes which will provide long-term benefits for the settlements. Those three urban plans were exhibited together and awarded at the International Salon of Urbanism in 2023 by Serbian Association of Urban Planners.

This paper is scientific elaboration of that exhibit. It is expected that the conclusions contribute future urban polices for Serbian territories.

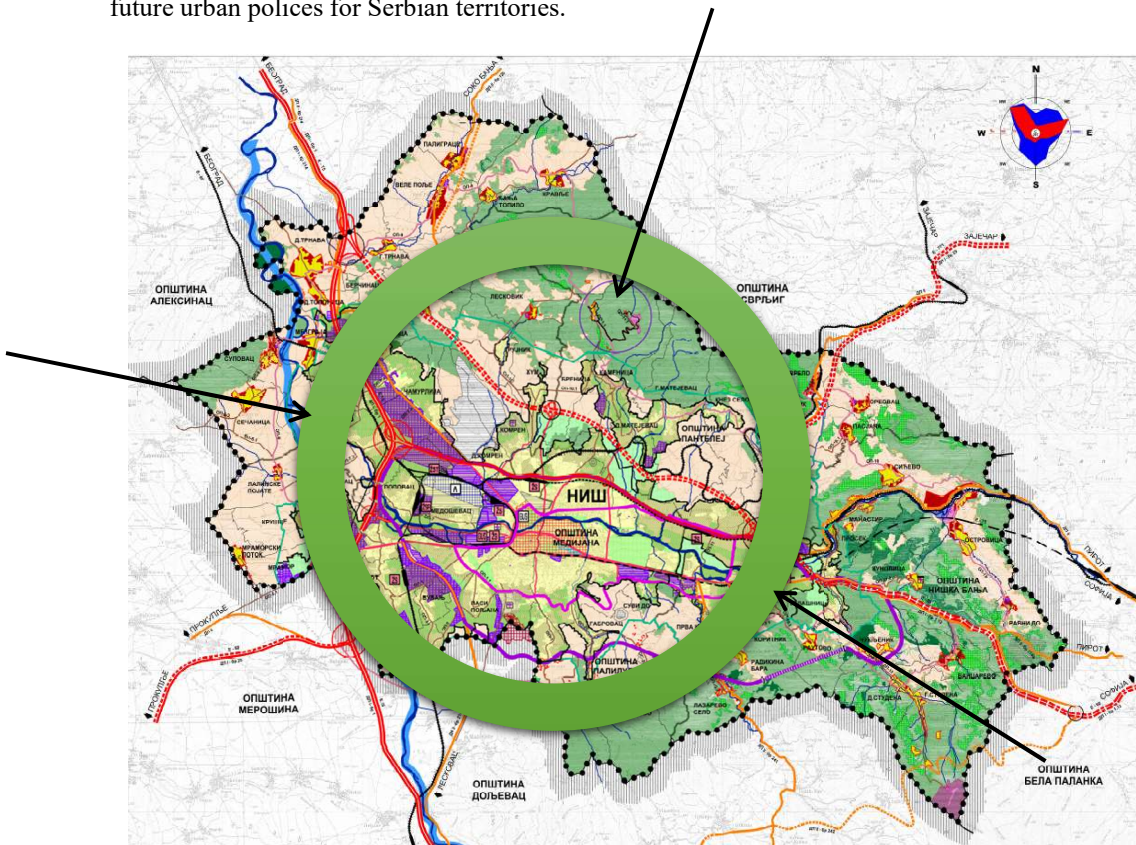


Figure 1. Location of Kapetove Pojate, Lalinske Pojate, and Radikina Bara from Nish centre - the green ring marks 10km distance

2. MATERIALS AND METHODOLOGY

2.1. MATERIALS

Kapetanove pojate (19 ha), toponym also known as Paprat, is in the centre of Niš tourist area B, situated near city's favourite picnic area, Kamenicki vis (in Serbian: Каменички вис), along the road connecting Cerjanska cave, opened for tourists, and historical site Cegar (in Serbian: Чегар). Currently, a dozen of weekend houses is scattered on both sides of the road near known water spring, and surrounded by the woods. The purpose of the urban plan (fig. 2) is to enable it to become a permanent settlement, with functions that provide basic self-sufficiency of the settlement. The area is also rich in wood.

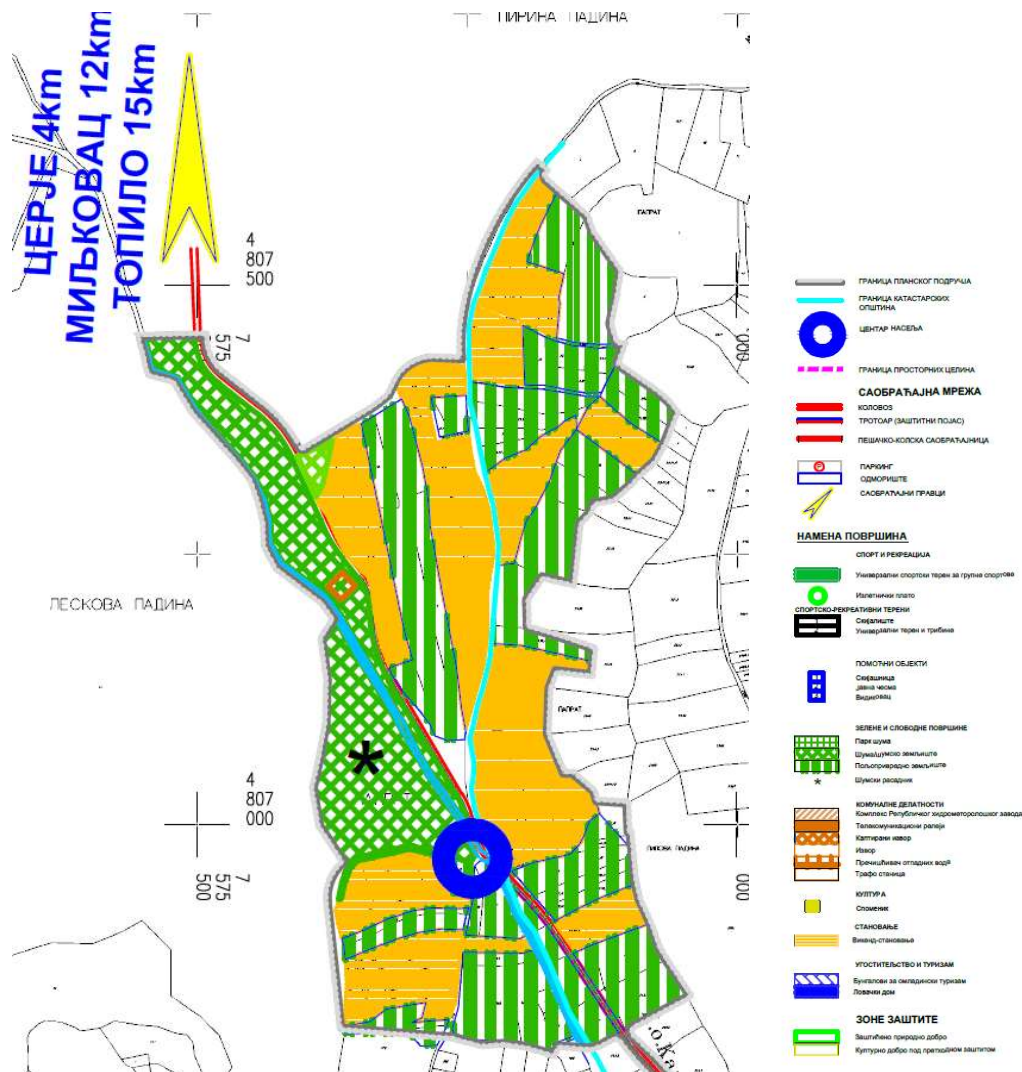


Figure 2. Excerpt for the urban plan for detailed arrangements for Kapetanove Pojate

The urban intervention was mostly directed towards finding regularity in formerly forest roads, and defining for the first time the planned urban morphology - the core of future urbanity.

Lalinske pojate (46 ha) was originally a dislocated agglomeration of premises for agricultural purposes, separated from the village of origin by the river South Morava. The word “pojate” means premises for agricultural tools, hay, and even animals, and, etimologically, the place where animals drink water. Its meaning is related but different from, also frequent, toponym “katun”, a Vlachos-Albanian word for temporary, typically summer shelter for shepherds. The extension of village Lalinac developed in the 20th century, but some premises existed much longer. The settlement is predominantly surrounded by wheat fields and it conspicuously lacks trees, public services and amenities. Common public places for children and the entire community were at the top of the list of requests by residents, regarding the expectations from an urban plan.

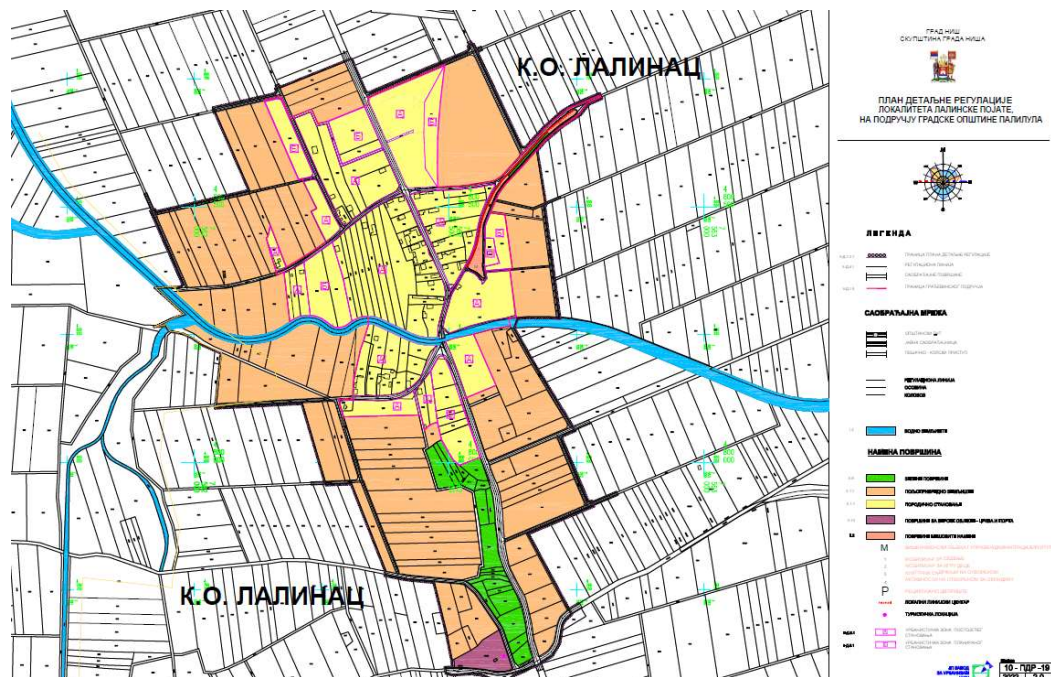


Figure 3. The excerpt from the urban plan for detailed arrangements for Lalinske pojate [3]

The local community-initiated land consolidation, which happened several decades ago. Consequently, the sizes of the blocks are bigger than expected. The plot in the centre of the village was segregated in that process because it forms a natural terrace, a few meters high, with a nice view to the otherwise flat area, including view to the river South Morava. It is narrow, distinctively long and steep, and as such unsuitable for agriculture. Therefore, it was chosen for the new linear centre of the village. The residential blocks were designed to meet needs of rural households, with un-detached houses and many auxiliary facilities on large construction plots, with area of over 1000m² in average (fig. 3).

Radikina Bara (107 ha) was an almost abandoned village two decades ago, however investment in water supply infrastructure, in addition to the natural beauty of the landscape, and rare suitability of the top of the hill for paragliding - enabled revival. The authorities of the nearby spa, centre of the tourist area A - Niška Banja, (which is one of the city municipalities, currently going through development crisis due to lack of land for development), recognize this village as suitable for extension of its own tourist area (New Niška Banja). The advantages of this location are several: it's only three kilometres away, having access to the same praised water springs, it is located close to the crest between two valleys, having an exceptional view, furthermore, it is south orientated, with many sunny hours per year. The vernacularly formed streets of the village turned out to be unusable to high extent for the desired purpose. Existing roads are both narrow and steep, and that is why:

- from the existing vernacular transportation network, only the part which follows the isohypses (approximately 4km or 50% of the existing streets) was preserved, and reconstructed using natural, ecological materials, with high water absorption capacity, and
- in total, 80% of preserved existing routes are kept as pedestrian, or dominantly pedestrian,
- while providing new, fast access by the outer ring, along which many public parking lots are situated, to motivate users not to use cars inside the ring, unless absolutely necessary;
- finally, the terrain is dominantly steep with an inclination between 15-40%, meaning that it is suitable almost exclusively for terraced houses (fig. 4). That implies that significant changes are required for reaching expected land-use efficiency. The intervention includes locations for solar power plants, tourist areas for investors of diverse capacities, and new main and auxiliary sports facilities for paragliding. Terraced houses are not common in the South of Serbia, and it was necessary to adopt strategy, tools and instrument which would favour such development.

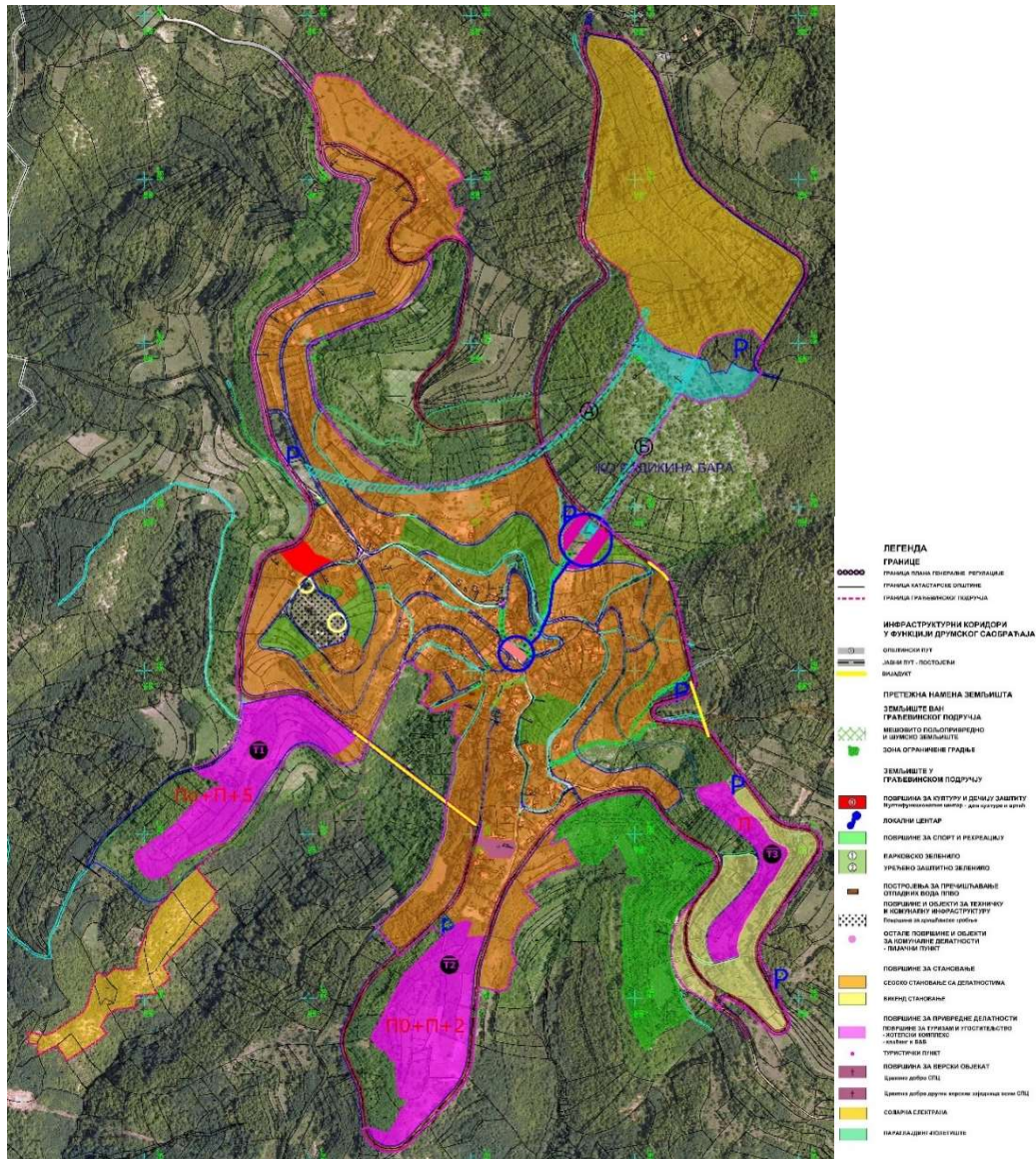


Figure 4. The excerpt from the urban plan for detailed arrangements for Radikina Bara [4]

The residential blocks in these three villages vary in:

- Size, including the size of the average land plot in the range from 250m² to over 1500 m²,
- Prevailing purpose (urban living/rural living/tourism),
- Inclination of terrain,
- Characteristics of the natural environment (infield/forest). (Figure 5)

In all three cases, around 10% of the area is reserved for transportation, and around 50% of the respective area is designated for construction, keeping the capacity to balance climate change and locally-generated carbon emission and pollution. The building coverage ratio is under 0.5 in residential blocks in the all three villages. Reaching “maximum 10% for the transportation “was particularly challenging in the case of Radikina Bara, where it was achieved through a radical custom-made concept. Numerical outcome, was better than expected – under 12% for transportation, including public parking areas which cover all needs respectively. Providing that literally all streets are fully walkable (with longitudinal inclination under 2%), was particularly important because of dominantly tourist future purpose of the area, and demanding, at the same time, considering that the difference in altitude between the lowest and the highest point is 335m (Table 1.)

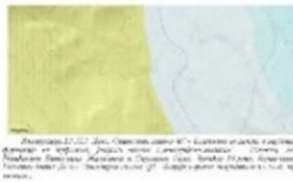


Сврха плана је да се вишеступњаста трансформација у трајно насеље и подручје се урбанизације по први пут. Уводи се нови стандарди којима се артикулише центар насеља. Поставља матрица се благо искривља ради будућег реда и правилности. Становници имају јак осећај заједничтва, и солидарности због чега је остављено да сами изаберу неку од јавних садржаја и одреде будући карактер насеља.



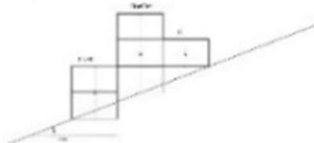
КАПЕТАНОВЕ ПОЈАТЕ
ПЛАН ДЕТАЛЈНЕ РЕГУЛАЦИЈЕ ЗА ПОДРУЧЈЕ КАМЕНИЦКОГ ВИСА И
ВИКЕНД НАСЕЉА НА ПОТЕСУ КАМЕНИЦА-ЦЕРЈЕ - ГРАДСКА ОПШТИНА
ПАНТЕЛЕЈ

Подручје је блиско затепљено, отворено према реци. Историја се блиско уживиће на ком се налази црква и геолошка аномалија - природна тераса на којој је смештен центар суводња. Споредна је комисија, и парцеле су простране и погодне за савско стамоварење. Ограничњења правила грађевња су умерена.



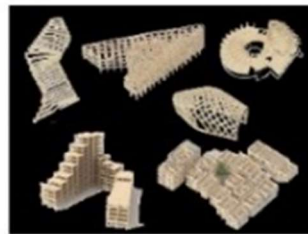
ЛАЛИНСКЕ ПОЈАТЕ
ПЛАН ДЕТАЛЈНЕ РЕГУЛАЦИЈЕ ЛОКАЛИТЕТА ЛАЛИНСКЕ ПОЈАТЕ НА
ПОДРУЧЈУ ГРАДСКЕ ОПШТИНЕ ПАЛИЛУЛА

Како не може неговати разлику једна од друга неће.
Застапа и зидови своје историје 1813. и 1911. године који се налази данас. Иако се 1911. године била била заграда нешто одлучи да се урбанизација неће бити привремена, него трајна.
Заправо се била нешто посебно једна од неких грађевња као нешто:
- мале зграде,
- изградња,
- изградња заградња зграда,
- изградња на истином месту, пошто је то нешто у историји.
Заправо се била нешто једна од неких грађевња, пошто је то нешто у историји. Пошто је то нешто у историји, пошто је то нешто у историји.
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Иако се била нешто једна од неких грађевња, пошто је то нешто у историји, пошто је то нешто у историји.



Насеље има мање од 50 становника, али се налази на тешкој али атрактивној локацији на брду између два долина. Има велики туристички потенцијал, због чега су осмишљена аутентична решења за блокове. Упоред висински разлику од око 250м између најниже и највише тачке, саобраћајнице су приближно равне и чине шетњу погодном.

РАДИКИНА БАРА
ПЛАН ДЕТАЛЈНЕ РЕГУЛАЦИЈЕ НАСЕЉА РАДИКИНА БАРА НА ПОДРУЧЈУ
ГРАДСКЕ ОПШТИНЕ НИШКА БАЊА

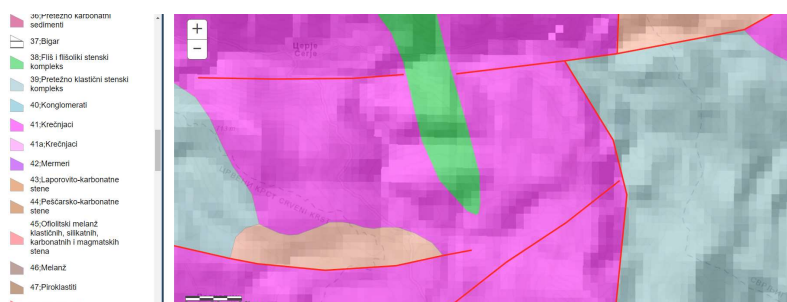


ЈЛ ЗАВОД ЗА УРБАНИЗАМ НИШ

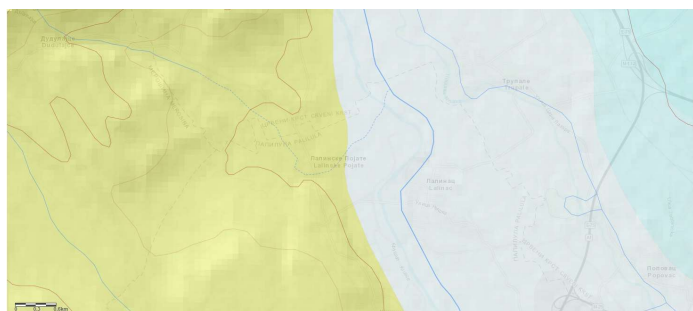
Figure 5. Types of the residential blocks in A. Kapetanove Pojate B. Lalinske pojate (excerpt from the exhibition poster from Salon of Urbanism 2023, [5])

Table 1. Overview of data for Kapetanove Pojate (KP), Lalinske Pojate (LP), and Radikina Bara (RB)

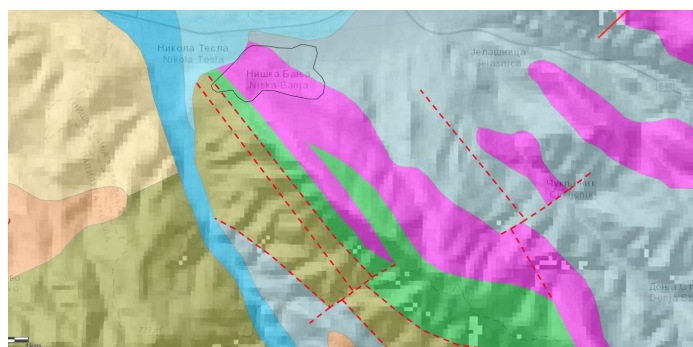
	Site	Area	Altitude scope (m)	Range of block sizes (ha)	Transportation Area (%)	Prevailing type of houses	Number of storeys (P-ground floor)	GBA (ha) (Gross building area)
1	KP	19.6	623-649	0.25-1.9	4.9	Un-detached house	P+2	2.5
2	LP	60.8	179-190	0.1-5.0	4.3	Un-detached house	P+2	12
3	RB	103.5	285-620	0.25-3.4	10.6	Terraced houses	P+1	42



Kapetanove Pojate



Lalinske Pojate



Radikina Bara

Figure 6. Geological characteristics of terrain [6]

3.1.16. ОПШТА ПРАВИЛА ГРАЂЕЊА ЗА ТЕРАСАСТЕ ОБЈЕКТЕ

Терен није погодан за градњу уколико је нагиб већи од 45%.

Уколико је нагиб терена 20% до 45%, за објекте веће од 50m² бруто површине основе, и више од 70m² разјављене бруто површине, обавезна је изградња терасастих објеката. На терену нагиба 15-20%, није обавезна изградња терасастих објеката али се јеста препоручује.

За терасасте објекте важе специфична општа правила грађења која се одnose на:

- висину објекта,
- спратност,
- удаљење од суседних објеката и
- максимални дозвољени индекс заузетости, као што је обједињено у наставку.

За терасasti објекат потребно је утврдити „највећу референтну висину објекта“. Највећа референтна висина објекта утврђује се упоређивањем висине објекта од тла до врха у карактеристичним пресецима сваке ламеле терасастог објекта; највећа узоредна вредност висине кроз ламелу узима се као „највећа референтна висина објекта“ која се користи уместо укупне „висине објекта“ за одређивање испуњености задатих урбанистичких услова.

За терасasti објекат потребно је утврдити „референтну спратност објекта“ која се одређује тако што се упоређује спратност у карактеристичним пресецима од тла до врха сваке ламеле терасастог објекта и највећа од њих се узима за референтну спратност објекта, а која се даље користи уместо укупне „спратности објекта“ за проверу испуњености услова о дозвољеној спратности.

Минимално удаљења од суседног објекта код терасастих објеката се утврђује у односу на „референтну висину објекта“ уместо у односу на укупну „висину објекта“.

Ограничења у погледу максималног допуштеног индекса заузетости се не примењују за терасасте објекте.




$a > b > c$ Максимална висина објекта је "a", $a \leq$ максимално дозвољено висине објекта
 Максимална спратност објекта је Пол+П+1 (пример са слике)
 Пол+П+1 \leq максимално дозвољено спратности објекта

Терасasti објекти на подручју овог Плана по правилу имају приступ на две или више улица, а нулта тачка мора бити одређена као средња вредност нивелете уличног фронта једне од њих.

Повезивање на јавну инфраструктуру може бити остварена везом са неком од приступних улица или више њих.

Figure 7. Original excerpt from urban plan for Radikina Bara – Rules of Construction [7] for Terraced Houses (in English: 3.1.16. GENERAL CONSTRUCTION RULES FOR TERRACE BUILDINGS) The terrain is not suitable for construction if the slope is greater than 45%. If the slope of the terrain is 20% - 45%, for buildings larger than 50m² of gross building area, and more than 70m² of gross floor area, the construction of terraced buildings is mandatory. On terrain with a slope of 15-20%, the construction of terraced buildings is not mandatory, but it is recommended. Specific general building rules apply to terraced buildings, which refer to:- the height of the object, - number of storeys, - distance from neighboring buildings and - the maximum allowable floor area ratio, as explained below. For a terraced building, it is necessary to determine the "highest allowable reference height of the building". The highest reference height of the building is determined by comparing the height of the building from the ground to the top in the characteristic sections of each lamella of the terraced building; the highest comparative value of the height through the lamella is taken as the "highest reference height of the object" which is used instead of the total "height of the object" to determine the fulfilment of the given urban requirements regarding the highest allowable height. For the terraced building, it is necessary to determine the "reference building storey" which is determined by arranging the spatiality in the characteristic sections from the ground to the top of each lamella of the terraced building, the object of the occupied object in the object that relates to the objects that relate to the objects. It is further used instead of the total "storey building" to check the fulfilment of the conditions on the permissible dexterity. The minimum distance from the neighboring building in the case of terraced buildings is determined in relation to the "reference height of the building" instead of in relation to the total "height of the building". Restrictions regarding the maximum allowed floor area do not apply to terraced buildings. $a > b > c$. The reference height of the object is "a", $a \leq$ the maximum allowed height of the object. The maximum number of floors of the building is Basement+Ground Floor+1 (example from the picture). Basement + ground floor + 1 \leq maximum allowed floor of the building. Terraced buildings in the area of this Plan, as a rule, have access to two or more streets, and the zero point must be determined as the mean value of the level of the street front of one of them. The connection to the public infrastructure can be achieved via one of the access streets or several of them.)

2.2. METHODOLOGY

Following our intention to scientifically elaborate the abovementioned urban plans, we applied observation method and content analyses.

Among numerous issues addressed in these urban plans, as land abandonment, structural adjustment, adopt land use pattern, resilience to climate change, and, rural revitalization, whose research would exceed the scope of this paper, we focused on what came first - problem of settlement classification, and we discussed it in relation with territorial disparity and climate change resilience.

This research is step towards bridging the gap between practice and theory, which in case of good theory shouldn't exist.

3. SETTLEMENT CLASSIFICATION

The classification of settlements is one of the frequent problems in a scientific research of this kind. A problem, which seems formal and typically gets superficial attention in professional practice, is an important question in scientific terms, however, with non-univocal answer. Traditional urban-rural dichotomy is not adequate for defining territorial disparity nowadays, and there are many approaches which have been used for identification of urban, rural and peri-urban areas. The most widely used methods are those based on demographic and socio-economic variables [8]. Statistical offices, national authorities and scholars contributed taxonomy over the years (ib), resulting in tens of different classification methods, which focus, with different variations, on demographic dynamics, economic and social indicators, settlement structure, distance, or the combination of the previous.

Table 2. The five clusters of urban-rural methods and the variables they use to distinguish between territories [8]

Methods	The variables used for their definition
<ul style="list-style-type: none"> • Demographic dynamics • Economic and social indicators • Settlement structure • Distance 	<ul style="list-style-type: none"> • Population density or other demographic indicators • Economic structure, sector specialisation, occupation • Size of clusters of dwellings and settlements • Distance in kilometres from the main and closest economic/social centre
<ul style="list-style-type: none"> • Hybrid 	<ul style="list-style-type: none"> • Use of multiple variables

Application of the first one results in unprecise or even wrong dichotomy, while the fourth – distance, defines the areas as urban fringes but has no relevance in the comparison, leaving at stake the middle two or their combinations (Table 2). Economic and social indicators are also of limited help, because economic activity is unmeasurable in practice. Based on specialization, LP can be characterized as rural, with small statistical advantage compared to other occupations, while the other two settlements do not have any specialization. However, the urban plans imply certain economic specializations in the future, in which KP and RB should dominantly specialize in tourism. For social indicators, data as “population changes, access to services, broadband internet connectivity, house prices, tourism and land-use/cover flows” are frequently used [9]. In current state, population increases in the all three, however very slowly, and due to migration in 2 of 3 cases, which happens because of equally-low house prices. Only LP shows some vitality and houses for sale are not available there. Availability of public services may be often a useful indicator [10]. however, in our case, values are similar in all three cases (under 3km of distance for LP and RB, slightly less convenient for KP).

If we add local specificity we come to the following. “In Serbia, the classification of cities and urban areas is based on administrative divisions as defined by law. Serbia’s Local Self-Government units (LSGs) are categorized as a 'city' or a 'municipality,' based on the Law on Territorial Organization”... LSGs are further sub-divided into either urban or rural settlements. Typically, each LSG has a central urban settlement and a network of rural settlements surrounding it... Therefore, the territory and population of a “city” or “municipality” combines both urban and rural areas... The city classifications used attempt reflect the Serbian and ECA context while also aligning with global literature. The classification of cities as secondary is based on UN-HABITAT’s definition of cities falling between 100,000 and 500,000...” [11]. In our case, the legal categorization may not be applicable, because KP, LP and RB are not any more independent settlements, but urban areas within administrative area of the city, i.e. rural (or not) areas within the city. Among them, only RB has relevant history as an independent rural settlement, while LP and KP are more dependable and more recent.

World Bank Serbia applied the following division:

- “Urban centre (city): The urban centre consists of contiguous grid cells with a density of at least 1,500 inhabitants per km² and a population of at least 50,000.
- Urban cluster (towns and suburbs): The urban cluster consists of contiguous grid cells with a density of at least 300 inhabitants per km² and has a population of at least 5,000 in the cluster. An urban cluster can be a town or a suburban area.
- Rural grid cell: Rural clusters are villages that do not belong to an urban centre or urban cluster, most these will have a density below 300 inhabitants per km². “[11]

This classification was established because they have recognized that “demographic data defined by administrative boundaries do not accurately capture the extent of urbanization in many countries across the world” (ib), and that administrative data may not be “reflecting a precise picture of Serbia’s urban system”, either. According to it, KP, LP and RB should belong to the urban cluster, regarding disposition but not regarding density which is much below limit.

Considering that urban plans imply change, at this point we can identify link between theory and practice – because the plans aimed to increase density to over 300 inhabitants per km².

The classification used by the Italian Government in 2014-2020 considered the three different areas in terms of altitude (mountain, plain, and hill) with the four categories of territories obtainable by applying the OECD methodology: urban poles with more than 150 inhabitants/km², predominantly urban with population of rural municipalities <15% of total population, significantly rural with population of rural municipalities >15% and 50% of total population etc. Eventually, they identified urban poles, rural areas specializing in intensive agriculture, intermediate rural areas and rural areas with development problems [12].

Structure of the settlements, described as “size of clusters of dwellings and settlements” (table 2) appears crucial in our case, and for it, different variables may be adopted. Spatial characteristics have been taken in account as relevant, indicatively, in countries with significant territorial disparities as Italy [12] [13] In our case, block size and characteristics, which are result of characteristics of terrain (geological, inclination, altitude etc.) are the only variables which significantly differ, leading to very different approach in planning of each area.

4. DISCUSSION AND CONCLUDING REMARKS

Urban fringes develop faster than core areas (Cattivelli, Methods for the identification of urban, rural and peri-urban areas in Europe: An overview, 2021). In 2020, 75% of Europeans have inhabited urban areas: 42% in the cities and the remaining in towns and suburbs. In Serbia, 60% of the population live in cities, contributing to 74% of all jobs and 75% of the national gross value added (GVA) (World Bank Serbia, 2023). This higher economic contribution of cities than expected according to size may be explained by economic advantages or “agglomeration economies” (ib), or significant presence of creative industries (e.g. software industry, gaming) for which vicinity reportedly matters [14]. In any case, urban areas economically matter, and urban fringes are places where they spread [15]

Urban fringes are relevant for food supply chain, and, therefore in Serbia, conversion of agricultural land is forbidden by law. Therefore, areas for living and work must remain where they have always been with some adaptations. Former villages or weekend-settlements, which remain suitable for such purpose, are rarely attached to the city, but more often create appearance of leapfrog development. Nevertheless, they generate a sort of territorial continuum with the urban core due to inherited both urban habits and transportation network, as well as with the rural areas in the vicinity. That is because those areas are not new, but inhabited (not necessarily continuously) for hundreds of years (unlike many cities e.g. in Asia). As such they are already well-adapted to the natural environment, with substantial resilience built in *operandum vivendi*, and they have already gained its place in the transportation network. Although, they may not have precise morphological identity at the time, often being in the process of urban transformation, they contribute to the economy, quality of living, and sustainability of the city or have potential to do so. They are resilient to speculative construction, and favourable for children and older population. Many obstacles and disadvantages of such areas, have reasonable solutions. For example, the entire water infrastructure in KP can be fully local, which is often neglected despite it being very practical, efficient and as such chosen as prevailing solution in many parts of the world. It is a paradox that Nish had one of the biggest productions of integrated units for water treatment for residential areas until early 21st c, but they were almost never applied locally. This is merely an illustration that technical solutions which were not taken in the account nevertheless exist, and could increase standard of living at

reasonable price without increasing ecological footprint – solving localized problem by localized, custom-made solution.

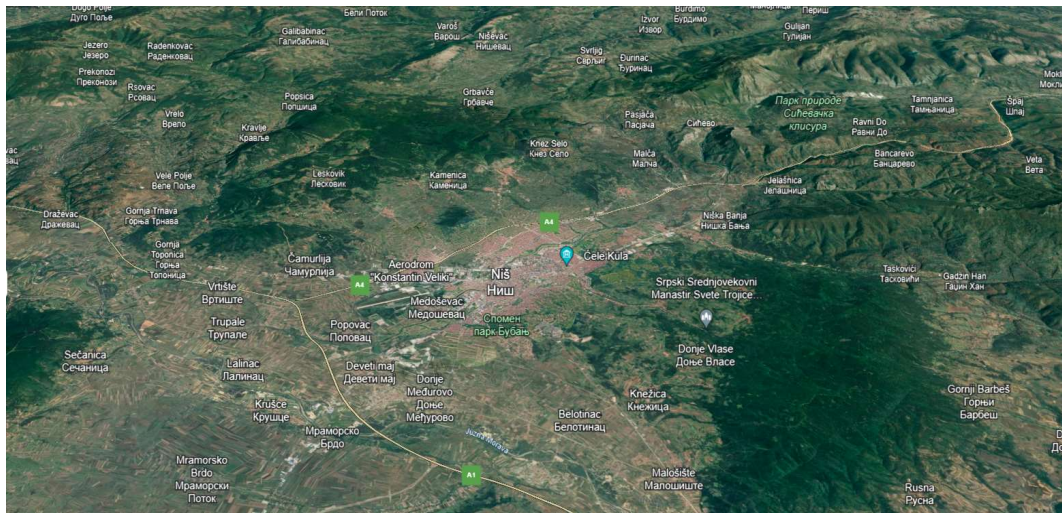


Figure 8. Aerial view of Niš administrative area with topography [16]

Peri-urban and rural areas in relation to green transformation are sometimes discussed with positive and sometimes with negative connotation, however they are considered relevant. World Bank Serbia severely criticized such settlements as impossible to govern in sustainable terms, regarding in particular infrastructural network and resilience to climate change [11]. Although it may be true in some cases, and even frequently so in some countries, in case of Nish, based on the abovementioned areas, it is not so, which easily may be extended to Southern Serbian cities or even entire Serbia. The main reason for wrong conclusion is improper classification of such urban areas. The aspect which was neglected, besides from humanistic values of such settlements, is overall existence and relevance of heritage - transferred adoptability for populating certain area among generations, which is by definition long-term sustainable despite oscillations.

The classification of settlements is closely related to territorial disparity, and they are often discussed together due to inter-dependence. Lack of proper classification, the one which does not reflect true territorial disparity misleads both scientists and professionals. For example, in Germany this issue was addressed early – villages in German countries was almost obsessively researched since the late 19th c, and generalization for the country as a whole was created based on numerous studies of small districts and comparative studies of historical and physical factors relevant for development and regional variations [17]. This early inductive research probably contributed that Germany nowadays has equally developed territory, with cases of higher economic contribution to GVA from rural areas (due to some international corporation situated in a small, wider-unknown village) than from some big urban areas (e.g. Berlin).

For example, data shows that 1km of street with the following infrastructure in Nish on average costs four times more than in Novi Sad [18]. That means, to achieve the same economic results, the comparative advantages of the location must be used four times more efficiently than in the area of Novi Sad, being used merely as a reference. That implies that the strategy of development must be more carefully planned and that the entire process is essentially different in the south than in the north of Serbia, but furthermore, in Serbia, it is fundamentally different among a few urban areas barely 15km away. Having such great diversity (fig. 6), additional attention must be paid to the strategy of planning areas in hilly terrains, because they represent at the same time both disadvantages and outstanding advantages for the economy, tourism, and quality of living. That further means that we may follow e.g. example of Italian classification, adopting additional variables for the classification, which are tailored for local environment. We intend to test different models in the future research papers.

Finally, it was not originally our intention to devote this paper entirely to the problem of classification of settlement, but to research many other aspects which the three urban plans addressed, and the classification was only the first step. Originally, we wanted to focus on urban morphology and characteristics of blocks, which were atypical, yet well-chosen and adequately implemented, and which gained the biggest attention among professionals. To our surprise, our

starting point, the identification of type of the settlements in scientific terms, turned out to be much more complex than we originally expected. Therefore, the further elements of the intended scientific elaboration of our exhibit will be considered in our future research.

ACKNOWLEDGMENT

This paper included material owned by the PE Institute of Urban Planning Nish. The first author of this paper is also the principal author of the abovementioned urban plans and the laureate.

We are in debt to the reviewers who considered that our paper had potential which we did not recognize ourselves.

FUNDS

This paper was not funded from public funds.

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