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# THE REDEVELOPMENT OF MILITARY BARRACKS BETWEEN DISCOURSES OF URBAN DEVELOPMENT AND HERITAGE PROTECTION: THE CASE STUDY OF NIŠ, SERBIA

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Areas of disused military barracks are commonly exploited as a land resource that is attractive for redevelopment, within the urban city area. Their commercial potential is high on the list of attractiveness, primarily based on the value of the site's disposition, size, and capacity for redevelopment in terms of rebuilding. Contemporary architectural practice is often directed towards urban redevelopment projects in military areas whose position and other characteristics are valued by investors as crucial commercial benefits. These sites may be places of tangible cultural heritage based on recognized architectural heritage and social memory. The paper presents a comparative study of the redevelopment of two former military barracks in Niš - Bubanjski Heroji and Filip Kljajić. These sites share the same disposition within the city but diverge in terms of their size, historical importance, and discourse of redevelopment. The comparison is presented from four perspectives: planning, built heritage, public perception, and cultural meaning. By examining the transformation of the complexes, the paper aims to perform a critical review which compares the reality of urban transformations in Serbia with the theoretical background and current urban regeneration policies promoted worldwide. This paper exploits the HUL approach, an integrated approach to urban management promoted by UNESCO, by extracting and analyzing four principles: the historical layering of cultural and natural heritage and attributes, dynamic character of urban space, promotion of social diversity, and balanced relation between artificial and natural. The conclusions highlight the difference between the local practices of commercially- and heritage-led redevelopment in order to suggest some improvements for similar redevelopment projects in the future.

Key words: urban redevelopment, built heritage, HUL approach, military barracks, Niš.

### INTRODUCTION

New urban models using previously built areas that have lost their original purpose, known as brownfields, have been intensively considered in recent decades (Tang and Nathanail, 2012). Western countries have faced brownfields mostly as a result of deindustrialization processes (Sýkora and Bouzarovski, 2012). Industry has vanished from densely built-up urban areas because of better business

opportunities elsewhere (cheaper land, construction costs, and labor with fewer ecological requirements), moving production dominantly into less developed countries and leaving former facilities empty and unused. On the other hand, in the states of the former Eastern Bloc, industrial production collapsed as a consequence of political changes that transformed state-directed economies into free markets, leading to the closure of numerous unprofitable and uncompetitive production sites (Hirt, 2013). Despite different narratives between East and West, the brownfields left in cities are their common problem. Brownfields can be found both in central urban areas and on the periphery. While older sites, with richer history and heritage, are more

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common for central urban areas, more recent developments (post-WWII industry) are distributed on the periphery of cities. Brownfields degrade the urban environment visually, economically, socially, and ecologically (Bullen, 2007). Their existence causes a decrease in the economic value of real estate in neighboring areas, an increase in insecurity, environmental pollution and the loss of identity of the city, which often leads to the exodus of the surrounding local population (Perović and Kurtović-Folić, 2012; Špirić, 2015).

The redevelopment of former industrial, military, traffic, or other types of brownfield areas has been noticeable in cities since the end of the 20th century as a part of sustainable urban regeneration strategies and policies. Sustainability has leaned on brownfield redevelopment, focusing on the clean-up of toxic industrial residues, adding value to the sites by building new or reusing old structures, and providing job and housing opportunities within transformed urban areas. This has also been justified because it reduces urban sprawl, promotes and protects the built and industrial heritage, maintains the identity of the place, and provides affordable space for both commercial and non-commercial uses (Oevermann and Mieg, 2015). Thus, brownfield regeneration creates local economic prosperity and employment, whilst increasing the land value and eliminating environmental pollutants (Malek and Matev, 2014). Sometimes the area is simply converted into green space (Atkinson et al., 2014; Kristianova et al., 2016). From the spatial aspect, the main benefit of redeveloping brownfield areas is to form opportunities for their reuse, existence, revival, and integration into the inherited and new landscapes, changing their physical and functional structure while preserving the urban and built heritage (Jevremović and Turnšek, 2011; Doleželova et al., 2014).

The culture-led (heritage-led) and commercially-led approaches are the most prominent regeneration policies, established throughout decades of redeveloping brownfield areas (Sacco et al., 2014; Jocić, 2020). While in the early days, preservation policies focused on the conservation and preservation of particular monuments and buildings, contemporary urban regeneration policies are striving for more balanced and sustainable concepts of managing the built heritage (Goncalves et al., 2020; Guzman et al., 2017). Also, since the 1970s the importance and need for holistic approaches in overall urban management has grown (Gonzalez Martinez, 2017), and challenges faced at the turn of the millennium pushed UNESCO to take a more active role in mapping the road for sustainable development (Erkan, 2018). Its focus shifted from heritage conservation to heritage management, resulted in adopting the Recommendation on Historic Cultural Landscapes (HUL) in 2011, acknowledging that urban areas are dynamic entities in which development and conservation are supposed to supplement each other in a joint process (Martini, 2012). The HUL Recommendations are the first instrument developed after 35 years to manage problems arising from rapid urban development, and they propose an integrated approach that would place development and the conservation of urban heritage on the same plane (UNESCO, 2011).

The emergence of military brownfield areas in cities is connected with the well-known geopolitical changes at

the end of the 20<sup>th</sup> century (the fall of the Berlin Wall in 1989, the end of socialist regimes in almost all Eastern Bloc countries). Due to military reorganization and policy restructuring, many military areas and defense bases, once built on the periphery of cities and towns, today belong to the urban core, but they have lost their original function and purpose (Jauhiainen, 2007; Simonović and Ilić, 2013). Cities that have previously undergone complex transformations caused by industrialization, urbanization, and later deindustrialization and suburbanization are now faced with demilitarization processes. In Eastern Bloc countries, transitional reforms announced after the fall of the ruling socialist regimes resulted in the formation of post-socialist cities (Hirt, 2013). In the political sense, in order to achieve a democratic system, the transition to a multi-party government system and decentralization occurred. The former socialist countries of Eastern and Central Europe went through two phases of demilitarization: 1) between 1988 and 1995, marked with wars, the disintegrations of former Soviet republics (USSRS, SFRY, Czechoslovakia) and the demobilization of military units, and 2) from 1995 until the beginning of the 21st century, when the size of the national army decreased (Glintić, 2015). These circumstances have resulted in the abandonment of military premises and a reduction in the number and size of military bases. In recent decades, these areas and properties in post-socialistic countries have also become the subjects of redevelopments projects (Jarczewski and Kurylo, 2010; Hercik et al., 2014; Glintić, 2015).

International research so far has mainly focused on examining the principles and possibilities for the revitalization and adaptive reuse of military areas, with the emphasis on barracks and garrisons (Gatti and Cacciaguerra, 2014; Hercik et al., 2014; Morar et al., 2016; Zagroba, 2015), as well as the preservation of military heritage (Gawryluk, 2016; Klupsz, 2008; Camerin et al., 2021). However, few domestic authors have dealt with the topic of redeveloping military areas. Some authors have discussed deliberative planning strategies for regenerating military brownfields in Serbia (Miljuš, 2018; Perić and Miljuš, 2021). Others have tackled the issues of abandoned fortifications in the form of bunkers and their potential for revitalization and conversion (Turnšek et al. 2020; Krzović, 2011). Only a few authors have discussed the issue of military barracks in Serbia and their potential for redevelopment (Mirić and Kurtović-Folić, 2016; Staničić, 2014). The notion of military legacy may be avoided by many researchers because of mixed emotions among the population towards recent political history (Bakić, 2011).

In this paper, we investigate the case study of two former military barracks in Niš - Bubanjski Heroji and Filip Kljajić, which have a rich and dissimilar historical background, including a building of outstanding architecture in a complex and favorable location within the city. The paper examines the sites through a comparative analysis, aiming to investigate the scope and results of urban redevelopment processes and the compatibility of the approaches used, putting into practice globally promoted agendas in this field. We compared the transformations of these barracks in Niš using UNESCO's HUL approach to analyze these areas from

four different perspectives: planning; land use, urban form & function; heritage protection; and public reception and cultural meaning.

# TOWARDS THE HISTORIC URBAN LANDSCAPE (HUL) APPROACH

Urban spaces are affected by a large array of new challenges, such as urbanization and globalization, which on one hand provide economic, social, and cultural advancement and opportunities to enhance the quality of life. On the other hand, unmanaged and poorly managed changes in urban density and growth can undermine the sense of place and the integrity of the urban fabric. Urban cultural heritage is an important human and socio-cultural element that retains the identity, integrity, and continuity of the city (Girard, 2013). The primary task in the protection and revitalization of abandoned urban areas is to enable a new lifecycle with a sense of contemporary standards and quality of life. The term Historic Urban Landscape (HUL) was first mentioned at a conference under the auspices of UNESCO: Vienna Memorandum on World Heritage and Contemporary Architecture - Managing the Historic Urban Landscape, in Vienna in 2005. This term was later defined as "an urban area understood as the result of a historic layering of cultural and natural values and attributes, extending beyond the notion of historic centre or ensemble" in the Paris Recommendations on the Historic Urban Landscape, adopted at the General Conference of UNESCO in 2011. This document defined the HUL approach as one of urban management. In Article 11, the Recommendation on HUL states:

"The historic urban landscape approach aims at preserving the quality of the human environment, enhancing the productive and sustainable use of urban spaces while recognizing their dynamic character, and promoting social and functional diversity. It integrates the goals of urban heritage conservation and those of social and economic development." (UNESCO, 2011).

UNESCO promotes the connection between contemporary architecture, sustainable development, and the integrity of the urban landscape, based on preserving the existing historical layers, built environment, and the context (Araoz, 2008).

Otherwise, the concept of the landscape has become widely accepted through other international instruments such as the European Landscape Convention (ELC, 2000), which introduced the landscape as "a resource favorable to: a) economic activity and whose protection, management and planning can contribute to job creation; b) the formation of local cultures, being a basic component of the European natural and cultural heritage, contributing to human wellbeing; c) being an important part of the quality of life for people everywhere: in urban areas and the countryside, in degraded areas as well as in areas of high quality, in areas recognized as being of outstanding beauty as well as everyday areas; and d) being a key element of individual and social wellbeing, and its protection, management, and planning entail rights and responsibilities for everyone." This shift, at the turn of the millennium, replaced the practice of dealing with historical monuments as isolated heritage artifacts (established by ICOMOS's Venice Charter

in 1964), instead seeing them as an integral part of the dynamic, built and natural environment, known as the landscape (Bandarin, 2019).

The HUL Recommendations is not a binding document, but it still reflects the common attitudes of UNESCO member states regarding the current and common challenges that cities are facing despite their geography and history. The quality of this approach (HUL) is its applicability to all urban areas, regardless of their size and context (Rodwell, 2018). HUL promotes a comprehensive and integrative approach to the identification, assessment, preservation, and management of historic urban landscapes within sustainable development. Based on a balanced relationship between the urban and natural environment and the needs of present and future generations, the HUL approach aims to preserve the quality and recognize the dynamic character of urban space and promote social diversity (Figure 1 left). Historic urban areas are aesthetically attractive and historically significant clusters of buildings and monuments, which need to be preserved. They create the local identity, expressed by a specific immaterial cultural dimension (Sonkoly, 2012). The HUL recommendations combine a traditional and modern understanding of heritage, aiming at urban and socio-economic development while respecting inherited values and traditions. Pereira Roders (2018) emphasized the advantages of the HUL Recommendation in broadening the resources that should be conserved: "today, every resource could become listed as heritage, as long as they are held in common and deemed valuable by their communities ... there is no limit to attributes and/or values, only the common aim to conserve them for future generations". The process of planning interventions in the historic urban landscape requires careful consideration of the potential and anticipation of risks to ensure balanced development (Figure 1, right). Contemporary architecture is complementary to the values of HUL and should not compromise the historical peculiarity of a given area. At the same time, the new structures should be designed to improve the visual character and richness of HUL.

Reports on implementing the HUL Recommendation (Pereira Roders, 2019) showed that 160 cities in the world (Serbia excluded) are currently participating in and/or hosting nearly 350 activities fostering the implementation of the HUL Recommendation. As "diffusion of innovation" (Rogers, 2003), implementation of the HUL approach is expected to have several stages. Thus, five groups of cities have been defined according to the innovation diffusion stages: innovators, early adopters, early majority, late majority, and laggards. It may become essential to integrate the HUL approach into national and local development policy to ensure adequate architectural and urban intervention in the historic urban fabric and its surroundings. The cities and countries that started exploring the potential of the HUL approach became early innovators, willing to take a risk, to try new things even if they fail, but they accumulated an essential experience that may help other cities to improve their built environment and urban management.

This perspective of urban management and spatial transformation is used as a qualitative framework to evaluate the areas in the case study and identify the challenges even

though Serbia and the city of Niš do not formally implement the HUL approach. The main principles, promoted by the HUL, to be examined are (Figure 1, left):

- the historical layering of cultural and natural values and attributes;
- · acknowledgment of the dynamic character of urban space;

HISTORIC [Layers: old and new]

LANDSCAPE [Setting: nature and culture]

APPROACH [Management: community

URBAN [Heritage: tangible and

intangible]

involvement

and partnerships]

- promotion of social diversity; and
- balanced relation between artificial and natural.

the process of demilitarization left behind more than 2000 military properties, and a small number of them have become the property of local governments (Glintić, 2015). By 2011, 32% of 342 identified post-Soviet properties had been reused, mainly with commercial and residential functions, but also in public services (Kadar, 2014).

As a post-socialistic country, Serbia faced democratic changes later than the rest of Central and Eastern Europe. After the last decade of the 20th century that witnessed war conflicts within the territory of the former Yugoslavia,

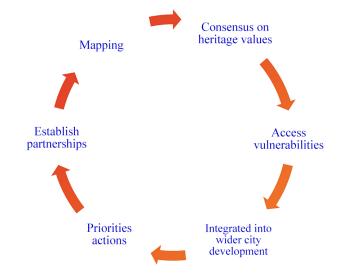


Figure 1. left: HUL approach and its attributes; right: Action Plan for HUL approach. (Source: Erkan, 2018)

## MANAGEMENT OF MILITARY HERITAGE IN THE FORMER EASTERN BLOC AND SERBIA

Eastern and Central Europe, including the former Yugoslav republics, are characterized by numerous large areas of military barracks located within urban areas that were developed during the 19th and 20th centuries, but abandoned by the end of the 20th century. The end of the Cold War meant that many military estates in Europe became useless (Staničić, 2014). In Poland, most post-Soviet and post-Polish military land was demilitarized in 1992 and 1993 (Jarczewski and Kurylo, 2010). Most post-military facilities have been converted for civilian use, with the sites usually sold to the local authorities. There have been several directions of redevelopment for former military properties in Poland (Jarczewski and Kurylo, 2010) and military barracks have been: revitalized, upgraded, and converted into multifamily housing complexes; used for educational purposes; and converted into public administration buildings. Postmilitary areas are now being used for tourism, and former airfields have been adapted to become capital investment zones or civilian airports.

Similarly, in the Czech Republic, in 2007 many of the 151 military brownfields were successfully transformed into civilian purposes (Hercik et al., 2014). These sites today are in the property of public administration, self-governance, and the private sector. Most of the military barracks have been converted into housing, by extending existing sites with new facilities (Hercik and Šery, 2012). In Hungary,

democratic changes in 2000 brought a break with the socialist past (Bakić, 2011). With this political change, there were regressive events manifested in the reduction of the state size (fragmentation of the country), and also in the population, with additional demilitarization of the state (as part of the peace treaties ending conflicts in the region). This narrative has influenced the fact that in the 21st century, the legacy of military history in society is being experienced without consensus. The people have always had respect for the national military, but political elites have often referred to the history prior to them in a negative context (the communists disputed the legacy of the monarchist period, before World War II; or the democratic government concerning the communist legacy) (Bakić, 2011).

Upon establishing a democratic regime, the Serbian Army began the process of transformation. This change is described as "switching from quantity to quality" (Ponoš, 2007). In practice, this meant that the army began the professionalization process and abolished compulsory military service, reducing the number of military units. Two trends can be observed in this period of transformation:

- Decrease in spatial capacities due to the reduced size of the army (resulting from the reduced size of the state) and its professionalization; this is significant because it caused the underutilization of military assets (buildings and complexes) on a large scale; and
- Gradual relocation of larger military complexes from urban city zones. The new ones are built in strategic

positions outside of city cores (e.g., Jug – Cerotina military base), while at the same time, the existing urban military complexes are being sold. The availability of urban military assets for change of ownership was further increased due to changes in military doctrines that largely rejected the concept of a visible military presence in cities, which had previously been the idea since the restoration of modern Serbian statehood in the late 19<sup>th</sup> century.

The transformation of military properties for civilian purposes began in 2004 with establishment of the Fund for Defence System Reform based on the Decree of the Council of Ministers, which aimed to provide adequate financial resources through the commercialization of available military real estate (Tadić, 2012). As this fund did not bring the desired results, it was canceled two years later. In 2006, the Government adopted two documents: "Real Estate Information on the Territory of the Republic of Serbia" (Ministarstvo odbrane, Sektor za materijalne resurse, Master plan, 2021), regarding land no longer needed by the army, and the "Master plan" for real estate management (NALED, 2015). Using these documents, the commercialization of military real estate could be achieved through tender, sale or exchange with local authorities, following the enacted Law on Public Property. The main goal of launching the master plan was to acquire funds to solve the housing issue for members of the army, and such planning has been partially preserved to date. In the master plan, 447 buildings and complexes (of which 51 are barracks) unnecessary to the army, are stated.

By 2010, 22 facilities, and by 2013, 71 facilities were relinquished or sold (Manić et al., 2015). One of the leading problems that prevented the master plan's (2006) implementation was the lack of appropriate documentation, because army documents have always been inaccessible to the public, thus and data on military properties can still not be found in civilian records. Further, unlike the practice of other Eastern European countries, in Serbia, the sale of military property to local authorities is done by means of compensation, which complicates the process of attracting foreign investments. These problems were partially solved by adopting the Sub-Action Plan in 2010 and an Amendment to the Sub-Action Plan in 2011. They clarified the deadlines for the sale of military real estate, enabled a reduction in the initial price of a property if there is no bid after the first announcement, and made it possible to have other forms of reimbursement to the Ministry of Defence instead of payment (Tadić, 2012). Although the Republic Property Directorate published advertisements for the sale of army real estate in March 2016, November 2017, and several times in 2020, no buyers were found for most of the military property.

Previous researchers have highlighted the following challenges regarding the practice of managing unnecessary military property, presented here in three categories (Tadić, 2012, NALED, 2015):

- The motive of the army the financial gains for the army, in order to solve the issue of housing for army members, initiated the process of commercialization;
- The Local Authority's role and perspective the local

- authorities were the purchasers of military properties in 2/3 of the cases. The local authorities usually have a determining role in defining the land-use plans of an area, as this is a part of a formal procedure, despite possible speculative practice; and
- The real estate value the value of a military property is vague due to the lack of market regulation and the potential high cost of remediation (demolition of unnecessary facilities, potential polluters).

According to the list of real estate sales available to the Ministry of Defence (Ministarstvo odbrane, Sektor za materijalne resurse, Master plan, 2021) and the Serbian army, today, there are 303 military complexes in Serbia, with 1,510 buildings covering an area of about 2,375 hectares of abandoned and unused military brownfield land (Ministarstvo odbrane, Sektor za materijalne resurse, Master plan, 2021). Military heritage management has gained importance in the last decade, with attention drawn to the barracks. The former Knežev Arsenal military and industrial complex of recognizable architecture in Kragujevac has been used since 2011 as a cultural center for music and other types of events and as a museum (Pavlović and Taranović, 2021). On the site of the former 4. Juli barracks in Voždovac in Belgrade, the complete demolition of military facilities freed the space for the construction of the Stepa Stepanović residential complex in 2012 (Staničić, 2014). Further, it is planned to convert the Arčibald Rajs barracks in Novi Sad into a university campus, but this has not yet been carried out (eKapija, 2017). In addition to barracks, usually vacated for new construction by demolition, many military facilities are being commercialized (e.g., airports have changed from military to civilian use).

# RESEARCH METHODOLOGY: THE CASE STUDY OF MILITARY BARRACKS IN NIŠ

To perform in-depth research on the reuse of military property in Serbia, the paper focuses on the case study of two military barracks in Niš. Within the city area today are several military facilities (barracks, fortifications from the Middle Ages, and buildings of the modern Serbian army - Vojna komanda, Oficirski dom, Dom vojske) which are part of the city's image and are incorporated in the urban tissue. Their character defines them as military facilities, but it does not mean that those facilities still have military usage, especially those from the previous epochs – the Fortress, Oficirski dom. Construction of military facilities in modern Serbia began in Niš upon liberation from the Ottoman Empire at the end of the  $19^{\mbox{\scriptsize th}}$  century. Since then, two time periods can be defined: before WWII - the period of monarchy rule; and after WWII - the socialistic period. Both periods were characterized by the great importance of the army supporting the state system that, as a consequence, gave the army and its estates privileged status in the city. This privilege could be seen in the spatial distribution of military areas within the city area, in the quality and the size of particular military buildings (e.g., Inženjerska kasarna (Engineer's barracks), Vojna komanda) and in the special treatment of the areas of greenery within barracks. The political changes at the turn of the century have defined different approaches regarding these military areas. Today, it is possible to identify six military barracks, which

should all but one, according to General Urban Plan (GUP) 2010-2025 for Niš, be transformed and reused for different purposes (Sl. list Grada Niša, br. 43/2011; Sl. list Grada Niša, br. 136/2016a; Sl. list Grada Niša, br. 26/2018). Four of the six barracks are at the stage of this expected transformation (Table 1).

projects for selected areas, gained from around 90 articles in newspapers, national and regional internet news-portals, blogs, and social media, published from 2011 to 2020, using comment sections.

The data collection techniques exploited were: the observation method on-site (fieldwork), observation and

Table 1. Overview of the ownership status of barracks in Niš and their planned purpo
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Name of	In the use by the army		Current ownership status	The planned purpose according to GUP 2010-2025
the barracks	currently	future		(Sl. list Grada Niša, br. 43/2011; Sl. list Grada Niša, br. 136/2016a; Sl. list Grada Niša, br. 26/2018)
Bubanjski Heroji	No	No	Private	Residential, commercial uses
Filip Kljajić	No	No	transferred to Ministry of Justice	Cultural, commercial purposes
Stevan Sinđelić	No	No	Army, a separate part of the plot was sold	University campus; residential area
Knez Mihajlo	Yes	No	Army, a separate part of the plot was sold	Central city area; Mixed uses areas
Aerodrom (Airport)	Yes	No/Yes	Army, transferred to local authorities	Public Transport Terminal, No purpose change
Mija Stanimirović	Yes	Yes	Army	Army purpose, no change

The research is based on a comparative analysis of two former military barracks in the city of Niš (Bubanjski Heroji barracks and Filip Kljajić barracks), which are in the process of urban renewal. The cases were selected based on the following criteria:

- solved ownership status allowed the start of the urban redevelopment process;
- different current ownership status, original urban morphology, and built heritage status that has led to different approaches in urban redevelopment;
- the same shared disposition within the city area; and
- · legacy of different periods.

These sites were analyzed from the planning perspective, the perspective of land use, urban forms and function, the perspective of heritage protection, and the perspective of public reception and cultural meaning. The research relies on a theoretical background, which includes a review of previous studies in the reconstruction of military complexes, a review of the development and transformation of military heritage management in Serbia, and an overview of UNESCO's HUL approach. The research methodology is based on several data collection techniques, the case study method, comparative analysis, and qualitative analysis. The source materials (data) for analysis included the following:

- data on the historical development and heritage protection of selected barracks, gained from published studies, historical archives, Institute for the Protection of Monuments, and planning documentation;
- site analysis using official city maps, orthophoto maps (Google Maps), Google Street View, and on-site exploration;
- data on planning perspectives, land use, and urban forms gained from official planning documents, urban projects, official statements by authorities, available photo-documentation, on-site investigation, and Google Maps; and
- qualitative data on public reception and cultural meaning regarding urban development plans and

analysis of photo-documentation and maps, content analysis of relevant documentation and texts (planning documents, historical documentation, published papers, and official statements by authorities). Fieldwork was carried out on several occasions in the period from 2018-2021, following the changes in the developmental strategies. Public perception and cultural meaning were researched by data collection and content analysis from various sources state above, then statistical analysis was used for processing the data and presenting the results. By comparative, qualitative, and quantitative analysis and then synthesis, the conclusions were formed.

### **COMPARATIVE ANALYSIS - THE TWO CASE STUDIES**

This research focuses on the study of two military barracks – Bubanjski Heroji and Filip Kljajić. These barracks are situated in the south-western part of Niš, on plots separated by the Vojvode Putnika city road, which leads to Bubanj memorial park. The distance from the central city square to both areas is around 1.5 km, which is a walking distance of 20 minutes.

These complexes are legacies of different periods. Bubanjski Heroji barracks was established during the Ottoman regime. After the formation of the Kingdom of Serbs, Croats, and Slavs in 1918, the barracks was called Barracks of the 16<sup>th</sup> Infantry Regiment Car Nikolai II Romanov, and after reconstruction after WWII, it was changed to Bubanjski Heroji barracks which it has retained to date (Mirić and Kurtović-Folić, 2016). Filip Kljajić barracks or Engineer's barracks as it was originally called, was built at the turn of the 20th century, according to the project by architect Danilo Vladisavljević. Its recognizable building was constructed in the neo-Romanesque style, and since 1983 it has been under a protection regime as a cultural monument (Mirić and Kurtović-Folić, 2016).

Besides having different historical backgrounds, these complexes do not share the same morphology of building form. Bubanjski Heroji barracks was a complex of freestanding buildings situated within an open space with greenery. Its pavilions were built as simple utilitarian

buildings, unobtrusive in their architectural expression (Figure 3). Filip Kljajić barracks was developed as a semiclosed urban block, retracted in relation to the current boundary of the plot, thus creating a pre-garden (Figure 2, left and Figure 4). Its distinctive architectural expression and style made this building an iconic landmark easily visible and recognizable from the public streets. A comparative overview of the sites is given in Table 2 and a satellite image in Figure 2.

is a planning level at which the transformation process is noticeable. Lower planning acts follow the changes introduced in the (*ibid.*), define developmental goals, and identify buildings under the protection regime (Table 3).

The Bubanjski Heroji barracks were sold to a private company in 2011 to create a new city center with high-quality dwellings and mixed uses (Živković *et al.*, 2016). The company introduced the Novi Niš urban project in 2012. The site construction planned for 2012 started in April 2016 and

Table 2. General information about the military barrack.	Table 2. General	l information	about the	military	barracks
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	Bubanjski Heroji barracks	Filip Kljajić barracks	
Area	15.07 ha	2.93 ha	
Location	south-west Niš, 1.5 km from center	south-west Niš, 1.5 km from center	
Built Heritage	None	Engineer's barracks, 1899	
Traffic connections	road; public transport; railway station, interurban bus stop - radius 500 m	main road; pub. trans.; railway station, interurban bus stop - radius 350m	
Change in ownership	in 2009 to local authorities; in 2011 to a private company	in 2011 to local authorities; sales attempted in 2011, 2016; in 2020 to Ministry of Justice	
Status	demolished, construction site	partial adaptation in the process	
Amenities in radius 500m	an elementary school, two public faculties, a church, the Court of Appeal, Bubanj memorial park		

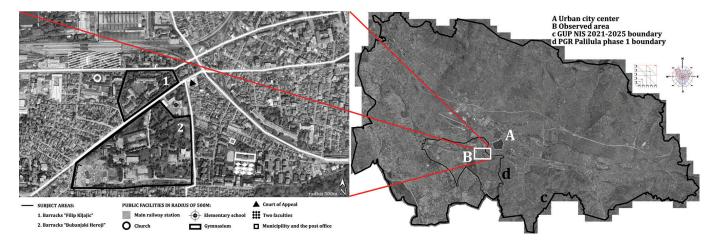


Figure 2. Areas of the two military barracks (Source of the original: gis.ni.rs)

### The planning perspective

The planning framework for development and construction in the observed areas includes: the Spatial Plan of the Administrative Area (RPAP) (Službeni list Grada Niša, br. 45/2011), General Urban Plan (GUP) 2010-2035 (Službeni list Grada Niša, br. 43/2011; Službeni list Grada Niša, br. 136/2016a; Službeni list Grada Niša, br. 26/2018), General Regulatory Plan of Palilula Municipality 1st phase (GRP1) (Službeni list Grada Niša, br. 111/2012; Službeni list Grada Niša, br. 90/2015; Službeni list grada Niša, br. 136/2016b) and the Urban Project Novi Niš for Bubanjski Heroji barracks, while Filip Kljajić barracks has so far not required a UP. The RPAP (Službeni list Grada Niša, br. 45/2011) did not deal with these areas in detail, but brownfield redevelopment was highlighted as a general developmental goal. The GUP (Službeni list Grada Niša, br. 43/2011; Službeni list Grada Niša, br. 136/2016a; Službeni list Grada Niša, br. 26/2018)

is still going. So far building permits have been issued for several buildings (9), and construction of some of them has begun (7), although none of them are yet inhabited (Registar objedinjenih procedura od 01.03.2015. godine, 2015).

The ownership of the Filip Kljajić barracks has been recently transferred to the Ministry of Justice to be (re)used as a court building (Jugpress, 2020). Although the information is obscure, some work on the building is noticeable, while official and formal redevelopment plans are still absent. Until today there has been a lot of speculation in the media about the new purpose of this heritage building. In 2014, there were indications that Engineer's barracks would be turned into the Military Museum of the City of Niš, while an idea from 2017 suggested using it as a business (start-up) space for the IT sector (Jugpress, 2020). Still, this building has been empty for a very long period, which has spontaneously initiated informal debate among locals (in media and social

Table 3. Planning framework for the redevelopment of the military barracks

Planning document	Bubanjski Heroji barracks	Filip Kljajić barracks
<b>GUP 1995-2010</b> (Službeni list Grada Niša, br. 13/95)	Military (Special purpose) area	Military (Special purpose) area
1 <sup>st</sup> amendment to the GUP from 2001 (Službeni list Grada Niša, br. 2/2002)	The two peripheral plots changed to medium density dwelling zone	ditto
3 <sup>rd</sup> amendment to the GUP from 2007 (Službeni list Grada Niša, br. 51/07)		
<b>GUP 2010-2025 from 2011</b> (Sl. list Grada Niša, br. 43/2011) <b>&amp; 1<sup>st</sup> amendment from 2016</b> (Sl. list Grada Niša, br. 136/2016a)	ditto	ditto
<b>2<sup>nd</sup> amendment to the GUP from 2018</b> (Sl. list Grada Niša, br. 26/2018)	ditto	Reuse as a commercial-trade center (western part) and public administration, education, culture (eastern part)
GRP1 from 2012, amendments from 2015 and 2016 (Sl. list Grada Niša, br. 111/2012; Sl.list Grada Niša, br. 90/2015; Sl. list grada Niša, br. 136/2016b)	General goals: - More intensive use of the land, achieving acceptable housing density and adequate communal and infrastructure equipment; - Strengthening of identity based on cultural and natural matrix; - Protection of the public interest, public goods, and public space;	
	the need for an Urban Project (UP); Engineer's barracks under the protection	

media) regarding the future of this famous building.

### The perspective of land use, urban forms, and functions

The physical qualities and functional aspects of the selected cases were studied in the comparative analysis. Using this perspective, the details of the Novi Niš urban project were examined with regard to the Bubanjski Heroji barracks, while in the case of Filip Kljajić barracks, the conditions prescribed by the heritage protection of Engineer's barracks and the current planning documents (Službeni list Grada Niša, br. 111/2012; Službeni list Grada Niša, br. 90/2015; Službeni list grada Niša, br. 136/2016b) were taken as the basis for the analysis - see Table 4.

The Novi Niš urban project envisages the area, by form, as a closed super-block, forming a "fortress wall" structure

Table 4. A comparison of the planned spatial and functional aspects of the former barracks

	Bubanjski Heroji barracks		Filip Kljajić barracks	
Functions	planned	built/exists	planned	built/exists
Dwelling	+	Under construction	-	/
Business	+	No	+	No
Trade	+	No	+	No
Culture	+	Old building, not in use	+	No
Education	+	No	+	No
Sport	+	Old building, not in use	-	/
Healthcare	+	No	-	/
Administrative, law	-	/	+	Yes
Open spaces	+	No	+	existing (front of Engineer's barracks)
Greenery	+ Yes		+	Yes
Morphological characteristics of the complex	Closed super-block (fortress wall): full edge construction + high towers + big-box formats + semi-private & private open spaces		compositio	d building block structure; the final on is not quite clear (an assumed form* is v) + public & semi-private open space
Sources of the photos: left - UP "Novi Niš" 2012; right - gis.ni.rs (the original)				

<sup>\*</sup> The sketch shows an assumed form of the new annexed building to the existing heritage building according to the announcements from the Ministry of Justice. Construction of an administrative building of 10 000 m<sup>2</sup> that is in line with the existing form is assumed. This shape would have 3 levels above the ground to fulfil the necessary building capacity.

towards adjacent blocks, while constant blocks are opened to each other. According to the purpose of the envisaged buildings, the area is divided into seven sub-units - a zone of family and multi-family housing, a number of aboveground floors (3 to 7), an art center with an exhibition space, a recreational and sports center with tennis courts and a swimming pool, a private university center with a student dormitory, a medical business center, a zone of trade and hotel business and a zone of accompanying power plants. Most facilities are being built at the expense of vacant land after the demolition of the military structures. Only two smaller facilities are being retained, within which the accommodation of the art center and part of the sports facilities are planned. Urban parameters show that while the former barracks had an occupancy index of 7.62%, with  $98,712 \text{ m}^2 \text{ of } 150,775 \text{ m}^2 \text{ occupied by greenery, the new plan}$ envisages an occupancy index of 31.88%, which is more than four times higher. That is still less than the average index values in the central urban area (around 60-70%).

According to the latest information from spring 2020, the Filip Kljajić barracks has been assigned to the Ministry of Justice. It is planned for housing all the judicial bodies based in Niš - Basic and Higher Court, Magistrates' Court, Public Prosecutor's Office (Jugpress, 2020). Although the necessary planning documentation for implementing decisions has not yet been announced, there is some official information regarding this conceptualization. According to the references, the protected building will be renovated and adapted to become a High Court and Public Prosecutor's Office in the first phase of the adaptation process. Then it will be followed by a final adaptation of the existing heritage building for the Magistrates' Court, Administrative center, and Commercial Court. The third phase of this undertaking will be the construction of a new facility of 10,000 m<sup>2</sup> on the site of the former parking lot (Jugpress, 2020, Ministarstvo pravde, 2020).

### The built heritage perspective

The existing built structures in the two observed barracks have different treatments. Table 5 shows the status of the existing buildings in both areas. The basis for the analysis is the same as in the previous chapter, in addition to on-the-spot observations.

It appears that there was little concern with regard to preserving existing military buildings during the conceptualization of the Novi Niš urban project. While most buildings were demolished in the first redevelopment phase, today it is even hard to establish their position and the morphology of the previous complex. There are two buildings in the center of the plot, which will be preserved despite their lack of formal status as built heritage. That gesture may be valued as positive, although the proposed concept will lack a contextualization of the historical narrative of the site and preserved buildings (Figure 3).





Figure 3. The woodlands of the Bubanjski Heroji barracks and existing reused building
(Source: https://bit.ly/2lMKIFE; https://www.juznasrbija.info/lat/drustvo/jos-nema-temelja-novog-nisa.html)

In contrast, the Filip Kljajić barracks has a protected building along with the complex gate and fore-garden (Mirić and Kurtović-Folić, 2016). Provided that the heritage protection rules enable the preservation of this area in its original form, this complex is going to preserve the original morphology and aesthetics of the place, since new additions are supposed to be planned in the backyard of the complex (Figure 4) (Jugpress, 2020, Ministarstvo pravde, 2020).





Figure 4. The Filip Kljajić barracks (Source: authors)

# The perspective of public reception and cultural meaning

To get an insight into the public reception of the expected transformation of the former military barracks, articles in

Table 5. Comparison of built heritage treatment in the former barracks area

	Bubanjski Heroji barracks	Filip Kljajić barracks
Condition of buildings	Good	Good/Fair
Built heritage buildings (No. of buildings)	No (0)	Yes (1)
Planned for reuse (No. of buildings)	Yes (2)	Yes (1)
Currently in use (No. of buildings)	No (0)	No (0)
Demolished undesired buildings	Yes	No
Dismantled material recycling	Yes	-
Planned function for reused buildings	Culture, Recreation	Education or Culture
Type of functional category	Public, non-commercial	Public, administrative, non-commercial

newspapers and informative web portals, published from 2011 to 2020, were examined periodically as a reflection of the public interest in the future of these complexes. In addition to the information provided by the army, local and national authorities and representatives of private capital, the articles also expressed the attitudes of journalists. As a source of public opinion, the readers' comments on the informative web portals and forums were taken. More than 90 articles and blogs were analyzed in total. The results are in Table 6.

Table 6. Overview of public opinions on barracks

	Bubanjski Heroji barracks	Filip Kljajić barracks
Condition of buildings	Good	Good/Fair
Built heritage buildings (No. of buildings)	No (0)	Yes (1)
Planned for reuse (No. of buildings)	Yes (2)	Yes (1)
Currently in use (No. of buildings)	No (0)	No (0)
Demolished undesired buildings	Yes	No
Dismantled material recycling	Yes	-
Planned function for reused buildings	Culture, Recreation	Education or Culture
Type of functional category	Public, non- commercial	Public, administrative, non- commercial

At first, people were enthusiastic regarding the Novi Niš urban project that offered, from the billboards, new and contemporary architecture, and therefore a new modern image of the city that was publicly appreciated. Still, eight years of development of the area have brought demolition and an unfinished construction site. This has resulted in people not believing in the outcomes of the project or its success.

Similarly, the heritage building Engineer's barracks was the subject of a recently concluded debate regarding its future use. Today, people share their regrets and disappointment in the final decision. Although they welcome the need for the extension of the existing spatial capacities of the city courts, people think there were better options for the use of this building of extraordinary heritage value, such as a culture center, museum, gallery or faculty (Figure 5).

### DISCUSSION

When comparing how the transformation of unused military areas is being implemented in Serbia, using the HUL approach of UNESCO, the following were noticed:

The historical layering of cultural and natural heritage and attributes - The transformation of the two complexes has only partially fulfilled the goals. Preservation of existing greenery is the prominent planning goal in the

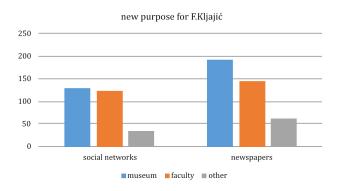


Figure 5. Statistical overview of public perception towards a new purpose for Filip Kljajić barracks

regeneration of both barracks, while the woodlands are a publicly recognizable resource and the primary value of the Bubanjski heroji barracks area. An increased built area and reduced greenery will significantly impair the existing identity. The demolition of the vast majority of the existing buildings has added to the loss of identity. Still, the plan to recycle built material can be positively evaluated. In terms of the qualitative and quantitative range of retained tissue, the Filip Kljajić barrack has a more favorable outcome. Here the historical layering of the area's heritage and attributes is recognized by the preservation of the Engineer's barracks, which adds to the promotion of cultural heritage in the built environment. The announced functional conversion into judicial institutions contributes to the continuous authoritative image of the place. On the other hand, in the Bubanjski Heroji barracks, plans for the two remaining buildings are as a "house of art" with workshops and exhibition space and an open studio, which may contribute to the historical layering of the built environment with the promotion of public uses and cultural contents. Still, those cultural or public uses are planned ad-hoc, and they are not historically rooted in this area, nor were cultural activists involved in the decision-making process.

From the architectural perspective, the layers of architectural history are retained by protecting the heritage building Engineer's barracks and the two buildings in Bubanjski Heroji barracks, although the preservation of their architecture is not certain due to their non-existent heritage status. Additionally, in the case of Bubanjski Heroji barracks, because generic contemporary architecture is promoted by the new plan, an imbalance in terms of the morphological characteristics of the newly planned complex and its surroundings will contribute to impairing the local visual identity of the space. According to relevant planning acts, Bubanjski Heroji barracks is given "excessive freedom" in urban planning that has resulted in the planned heterogeneity of its functional and morphological aspects. According to the planning acts and morphological characteristics of the protected building, Filip Kljajić barracks will probably face a scenario integrating the old and new buildings into the structure of the closed block, which should provide an integration of functions and forms.

Dynamic character of urban space - The dynamics of the

urban space were evaluated according to the capacity of the area to adapt to the current needs of society. The planning authorities emphasize the cultural, educational, and public services, but implementation has been minimal. Since both complexes have been abandoned for many years, the redevelopment strategy did not recognize any possibility of temporary uses for existing buildings and spaces or any non-institutional initiatives for the occupation of the areas (squatting) as a possible model for their reactivation. This probably applies only to non-heritage buildings, though.

Besides, the dynamics of the urban space are also evaluated by the spatial component. Compositional disconnection, predominant mono-functionality, and non-conformity among the newly envisaged buildings have diminished the synergy of the area that is necessary for urban dynamism. Fully built street frontages in some parts keep the feeling of the area's inaccessibility to the public and prevents interaction with the surroundings. Also, the lengthy construction phase in which the complex has remained closed shows a lack of adaptability and poorly managed valuable urban space. In the case of Filip Kljajić barracks, as the announced prospective use is for judicial institutions, this may advance the urban dynamics and connectedness. The complex will remain inaccessible to the general public, although it will improve the reputation of the city area (high-ranked public institutions, demands for office space for lawyers in neighboring areas). The dynamics of urban spaces are at a low level if the areas are closed, empty, or abandoned for a long time. That is the factual situation for both of these barracks, and any contribution that will make this area more liveable and inhabited could be positively valued.

**Promotion of social diversity** - By promoting a luxury residential-business complex, the UP of Novi Niš refuses to recognize social diversification as one of its goals, aside from planning some military residential units and renovating a single old building which will become the artists' community. The plans for Filip Kljajić barracks also lack this attribute, except that the monumentally protected building will be attributed to the judicial institutions, but still the elite. Both redevelopment projects have refused to include the local community in the development stages of their plans (missing "establishing the partnership" Figure 1, right). That has resulted in the absence of non-commercial facilities in the complex of Novi Niš and informal activities, oftentimes used in similar regeneration processes. While the area of Filip Kljajić barracks remains mono-functional (public use), the former Bubanjski Heroji barracks is planned as a mixed-use complex, but with a strong focus on commercial purposes, which lacks the mechanisms of urban management to house less favorable (non-profit) and vulnerable users.

Balanced relation between artificial and natural - The goal is fairly applicable as both of the sites belong to areas of the inner-city urban area because of their characteristic natural qualities. Being military areas for a long time, more than a century, these sites are home to rich and mature urban greenery that contributes to the micro-climate and overall image of the city area. Extensive re-urbanization of both sites may harm this image, in particular in the

case of Bubanjski Heroji barracks, the announced total morphological transformation, and thus the loss of extensive urban greenery (multiplied occupancy index).

### CONCLUSION

Conclusions drawn from comparing the two former military areas in Niš using the HUL approach can be summarized in the following remarks:

- · Use of the HUL approach was not officially required in the redevelopment of the barracks, and can therefore not be used to conclude that there was any formal malpractice in this context. However, the analysis and comparison using HUL identified the key noncompliances as a lack of public dialogue regarding the heritage values (architectural and natural) of the places and their new uses; the absence of cultural sector activists as partners in the planning process; and a lengthy construction phase with poor management of unused space, seen in the absence of possible temporary purposes. These should be acknowledged as omissions in the redevelopment strategies used. The most significant problem is the lack of dialogue and absence of an active role played by the local community in the processes related to their surroundings. Decisions were made away from the local public at the state ministry level (Filip Kljajić barracks) or mayoral level (Bubanjski Heroji barracks).
- Consequently, the redevelopment strategies adopted in both cases cannot be linked and identified with the HUL approach, but rather with simple commercialization of the former military areas in the case of Bubanjski Heroji barrack, although there are some positive matches with HUL, such as retaining a few old buildings in the heart of the complex for community uses.
- The case of Filip Kljajić barrack is an example of public (state) intervention on heritage buildings. By assigning a new public purpose, the state assures the management and maintenance of the protected heritage, as it is a public interest. However, the opportunity of making this prominent building more open to the public with a more receptive and appreciated role was lost.
- Both redevelopment projects represent the cases of citizen participation being absent in the decision making, with the presentation of ready-made ideas to the public.
- The on-site results of the redevelopment so far in both cases cannot qualify as a success. The lengthy realization process, followed by the absence of activities on the sites, strongly advocate the use of existing international agendas (e.g., HUL approach) in such redevelopment projects. This would in the future help to avoid irrecoverable losses in the material and immaterial, natural and built heritage, as well as maintain the resilient urban dynamics very much needed for urban areas.

Although military barracks are a significant spatial resource of Serbian cities, their revival has proved to be a complex challenge, as emphasized in both of these cases. By focusing on the commercialization of these areas, the heritage, both built and natural, and its protection and

management were omitted in this process that the army initiated. This weakened the influence of the conservation and heritage protection institutions in the decision-making process during the planning and implementation stages. As in many countries, the practice of urban planning is in crisis. The void, in theory, filled by commercial stakeholders' aspirations does not necessarily prioritize people's needs, which remain unnoticed due to the poor tradition of community enrolment in planning practice, especially in former socialistic countries. Thus, the possibilities and strengths of the HUL approach need to be communicated by sharing good practices with the wider communities through professional and civic networks, but even more by institutional readiness for the change in its practice. Similarly, even unsuccessful stories may be used to address the need for a more comprehensive and integrated approach to urban management, regardless of whether it is the HUL approach or another.

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### REFERENCES

- Araoz, G. (2008). World-Heritage Historic Urban Landscapes: Defining and Protecting Authenticity, *APT Bulletin: Journal of Preservation Technology*, Vol. 39, No. 2, pp. 33-37.
- Atkinson, G., Doick, K. J., Burningham, K., France, C. (2014). Brownfield regeneration to greenspace: Delivery of project objectives for social and environmental gain, *Urban Forestry & Urban Greening*, No. 13, pp. 586-594. https://doi.org/10.1016/j.ufug.2013.04.002
- Bakić, J. (2011). *Razaranje Jugoslavije i njegovi tumači*. Beograd: JP Službeni glasnik.
- Bandarin, F. (2019). Reshaping Urban Conservation. In A. Pereira Roders, F. Bandarin (Eds.), *Reshaping Urban Conservation The Historic Urban Landscape Approach in Action*, Springer, Vol. 25, No. 1/2, pp. 20-31.
- Bullen, P. A. (2007). Adaptive reuse and sustainability of commercial buildings, *Facilities*, Vol. 25, No. 1/2, pp. 20-31.
- Camerin, F., Camatti, N., Gastaldi, F. (2021). Military Barracks as Cultural Heritage in Italy: A Comparison between before-1900-and 1900-to-1950-Built Barracks, *Sustainability*, Vol. 13, No. 2, 782. https://doi.org/10.3390/su13020782
- Council of Europe (2000). European Landscape Convention, Florence 20. 10. 2000. *European Treaty Series*, No. 176.
- Doleželova, L., Hadlaa, M., Kadlecova, M., Martinat, S., Polednik, M. (2014). Redevelopment potential of brownfields: A-B-C classification and its practical application, *Economics*, Vol. 17, No. 2, pp. 34-44. https://doi.org/10.15240/tul/001/2014-2-003
- eKapija (2017). Novi univerzitetski kampus u Novom Sadu na

- mestu nekadašnje kasarne Dr Arčibald Rajs [online]. https://www.ekapija.com/news/1659466/novi-univerzitetski-kampus-u-novom-sadu-na-mestu-nekadasnje-kasarne-drarcibald [Accessed: 12 Feb 2020].
- Erkan, Y. (2018). The Way Forward with Historic Urban Landscape Approach Towards Sustainable Urban Development, *Built Heritage*, No. 2, pp. 82-89. https://doi.org/10.1186/BF03545686
- Gatti, M. P., Cacciaguerra, G. (2016). Military buildings: from being abandoned to reuse. In C. A. Brebbia and C. Clark (Eds.), *Defense Sites II: Heritage and Future*, Southampton: WIT Press, pp. 17-27.
- Gawryluk, D. (2016). Historic 19th Century Barracks in the Space of Polish Cities, *Procedia Engineering*, No. 161, pp. 1615-1619. https://doi.org/10.1016/j.proeng.2016.08.635
- Girard, L. F. (2013). Toward a Smart Sustainable Development of Port Cities/Areas: The Role of the "Historic Urban Landscape" Approach, *Sustainability*, Vol. 5, No. 10, pp. 4329-4348. https://doi.org/10.3390/su5104329
- Glintić, M. (2015). Revitalization of military brownfields in Eastern and Central Europe, *Strani pravni* život, No. 1, pp. 123-136.
- Gonçalves, J., Mateus, R., Silvestre, J. D., Roders, A. P. (2020). Going beyond Good Intentions for the Sustainable Conservation of Built Heritage: A Systematic Literature Review, *Sustainability*, Vol. 12, No. 22, 9649. https://doi.org/10.3390/su12229649
- Guzman, P. C., Pereira Roders, A. R., Colenbrander, B. J. F. (2017). Measuring links between cultural heritage management and sustainable urban development: An overview of global monitoring tools, *Cities*, Vol. 60A, pp. 192-201. https://doi.org/10.1016/j.cities.2016.09.005
- González Martínez, P. (2017). Built Heritage Conservation and Contemporary Urban Development: The Contribution of Architectural Practice to the Challenges of Modernisation, *Built Heritage*, No. 1, pp. 14-25. https://doi.org/10.1186/BF03545666
- Hercik, J., Toušek, V., Šery, O. (2012). The conversion of military sites in the Czech Republic: Hodnonin and Uherske Hradišt, *Territorio*, No. 62, pp. 43-46.
- Hercik, J., Šimaček, P., Szczyrba, Z., Smolova, I. (2014). Military brownfields in the Czech Republic and the potential for their revitalization focused on their residential function, *Questions Geographical*, Vol. 33, No. 2, pp. 127-138. https://doi.org/10.2478/quageo-2014-0021
- Hirt, S., (2013). Whatever happened to the (post)socialist city? *Cities*, Vol. 32, No. 1, pp. 29-38. https://doi.org/10.1016/j. cities.2013.04.010
- Jarczewski, W., Kurylo, M. (2010). Regeneration of post-military areas in Poland. *Europa XXI*, Vol. 21, pp. 117-133. https://doi. org/10.7163/Eu21.2010.21.9
- Jauhiainen, J. (2007). Conversion of military brownfields in Olulu. In D. U. Vestbro (Ed.), *Rebuilding the city. Managing the built environment and remediation of brownfields*, Baltic University Press, pp. 27-33.
- Jevremović, Lj., Turnšek, B. A. J. (2011). Possibilities of Brownfield Sites as Land Resource for Sustainable Urban Development and Space Management, *The 4th International Conference on Hazards and Modern Heritage "The Importance of Place"*, 13-16 June 2011, Sarajevo, Vol. 1, No. 1, pp. 416-428.
- Jugpress (2020). Počela rekonstrukcija zgrade nekadašnje kasarne Filip Kljajić [online]. https://jugpress.com/pocela-

- rekonstrukcija-zgrade-nekadasnje-kasarne-filip-kljajic/[Accessed: 17 Feb 2020].
- Jocić, N. (2020). Culture-Led Urban Development vs. Capital-Led Colonization of Urban Space: Savamala—End of Story? *Urban Science*, Vol. 4, No. 3, 35. https://doi.org/10.3390/ urbansci4030035
- Kadar, K. (2014). The rehabilitation of former Soviet military sites in Hungary, *Hungarian Geographical Bulletin*, Vol. 63, No. 4, pp. 437-456. https://doi.org/10.15201/hungeobull.63.4.5
- Klupsz, L. (2008). The spirit of the military heritage places, *Proceedings 16th ICOMOS General Assembly and International Symposium: 'Finding the spirit of place between the tangible and the intangible'*, 29 Sept 4 Oct 2008, Quebec, Canada, pp. 1-10.
- Kristianova, K., Gecova, K., Putrova, E. (2016). Old Industrial Sites Conversion to Parks: Potential of Bratislava, *Procedia Engineering*, No. 161, pp. 1858-1862. https://doi.org/10.1016/j.proeng.2016.08.709
- Krzović, I. (2011). Fortifications along the railways, *Proceeding* of 4th International Conference on Hazards and Modern Heritage The Importance of Place, Sarajevo, pp. 547-556.
- Malek, M., Matev, C. V. (2014). The Economic, Social, and Environmental Benefits Derived From the Redevelopment of Brownfields, *Management Science and Engineering*, Vol. 8, No. 1, pp. 1-5. http://dx.doi.org/10.3968/j.mse.1913035X 20140801.4266
- Manić, B., Bajić, T., Niković, A. (2015). Urbana obnova u kontekstu klimatskih promena, na primeru prenamene kompleksa kasarne u Beloj Crkvi, *Arhitektura i urbanizam* (In Serbian), No. 40, pp. 24-36. https://doi.org/10.5937/a-u0-7938
- Martini, V. (2012). The Historic Urban Landscape (HUL) as a new approach to the conservation of historic cities [online]. https://www.researchgate.net/profile/Viviana\_Martini/publication/281592074\_The\_Historic\_Urban\_Landscape\_approach/links/55ef29d008aedecb68fd9d4a [Accessed: 17 Feb 2020].
- Ministarstvo odbrane, Sektor za materijalne resurse, Master plan (2021). *Lista prodaje nepokretnosti na raspolaganju u MO i VS* (in Serbian) [online]. https://www.mod.gov.rs/master\_plan/lista\_nepokretnosti.php [Accessed: 17 Feb 2020].
- Miljuš, M. (2018). *Javna deliberacija u planiranju prenamene vojnih braunfild lokacija (in Serbian)*. (Doctoral dissertation, Univerzitet u Beogradu Arhitektonski fakultet, Beograd, Srbija). https://uvidok.rcub.bg.ac.rs/handle/123456789/2681 [Accessed: 13 Oct 2020].
- Ministarstvo pravde (2020). *Najava: Vojna kasarna buduća zgrada pravosudnih organa u Nišu* [online]. https://www.mpravde.gov.rs/sr/vest/30090/najava-vojna-kasarna-buduca-zgrada-pravosudnih-organa-u-nisu-.php [Accessed: 20 Feb 2020].
- Mirić, A., Kurtović-Folić, N. (2016). Conversion of military property, Engineers' Barracks in Niš, *Proceedings of 4th International Conference on Contemporary achievements in Civil Engineering*, Subotica, pp. 747-753.
- Morar, C., Dulca, M., Nagy, G. (2016). Brownfields regeneration, between sustainable urban development and cultural heritage. The former military sites in Oradea, Romania, *Journal of Urban and Regional Analysis*, Vol. VIII, No. 1, pp. 75-84.
- NALED (2015). Revitalizacija braunfild lokacija u Srbiji: Analiza pravnog okvira, primeri najbolje prakse i preporuke za unapređenje. Beograd: NALED.

- Oevermann, H., Mieg, H. (2015). *Industrial heritage Sites in transformation: Clash of Discourses*. London: Routledge.
- Pavlović, J., Taranović, K. (2021). Prostorne implikacije savremenog koncepta kulturne održivosti na primeru industrijskog nasleđa, *Zbornik radova XI naučno stručne konferencije Graditeljsko nasleđe i urbanizam* (In Serbian). Beograd, pp. 106-117.
- Pereira Roders, A. (2018). Urban heritage. In A. Orum (Ed.), *The Wiley-Blackwell encyclopedia of urban and regional studies*. New Jersey: Wiley-Blackwell, pp. 1-3.
- Perić, A., Miljuš, M. (2021). The regeneration of military brownfields in Serbia: Moving towards deliberative planning practice? *Land Use Policy*, Vol. 102. https://doi.org/10.1016/j.landusepol.2020.105222
- Perović S., Kurtović-Folić N. (2012). Braunfild regeneracjaimperativ za održivi urbani razvoj. *Građevinar*, No. 5, pp. 373-383.
- Ponoš, Z. (2007). Transformacija Vojske Srbije izazovi i odgovori, *Vojno delo* (In Serbian), No. 3, pp. 9-30.
- Registar objedinjenih procedura od 01.03.2015. godine (in Serbian) [online]. http://www.eservis.ni.rs/Registar ObjedinjenihProcedura/ [Accessed: 5 March 2020].
- Rodwell, D. (2018). The Historic Urban Landscape and the Geography of Urban Heritage. *The Historic Environment: Policy and Practice,* Vol. 9, Issue 3-4, pp. 180-206. https://doi.org/10.1080/17567505.2018.1517140
- Rogers, E. M. (2003). *Diffusions of innovation* (5th ed.), New York: Free Press.
- Sacco, P., Ferilli, G., Blessi, G. T. (2014). Understanding culture-led local development: A critique of alternative theoretical explanations, *Urban Studies*, Vol. 51, Issue 13, pp. 2806-2821. https://doi.org/10.1177/004209801351287
- Simonović, D., Ilić, D. (2013). Izazovi osporenih vrijednosti i značaja regeneracije napuštenih i nedovoljno iskorišćenih prostora u Republici Srpskoj, *AGG+* (in Serbian), Vol. 1, No.1, pp. 54-69. https://doi.org/10.7251/AGGPLUS1301054S
- Službeni list Grada Niša (br. 13/95). Generalni urbanistički plan Niša 1995-2010 (In Serbian).
- Službeni list Grada Niša (br. 02/2002). Prve izmene i dopune Generalnog urbanističkog plana Niša 1995-2010 (In Serbian).
- Službeni list Grada Niša (br. 51/07). Treće izmene i dopune Generalnog urbanističkog plana Niša 1995-2010 (In Serbian).
- Službeni list Grada Niša (br. 43/2011). Generalni urbanistički plan Niša 2010-2025 (in Serbian).
- Službeni list Grada Niša (br. 45/2011). Prostorni plan administrativnog područja Grada Niša 2021 (In Serbian).
- Službeni list Grada Niša (br. 111/2012). Plan Generalne Regulacije područja GO Palilula I faza (In Serbian).
- Službeni list Grada Niša (br. 90/2015). Prve izmene i dopune Plana Generalne Regulacije područja GO Palilula I faza (In Serbian).
- Službeni list Grada Niša (br. 136/2016a). Prve izmene i dopune Generalnog urbanističkog plana Niša 2010-2025 (In Serbian).
- Službeni list Grada Niša (br. 136/2016b). Treće izmene i dopune Plana Generalne Regulacije područja GO Palilula I faza (In Serbian).
- Službeni list Grada Niša (br. 26/2018). Druge izmene i dopune Generalnog urbanističkog plana Niša 2010-2025 parcijalne izmene (In Serbian).

- Sonkoly, G. (2012). The meanings of historic urban landscape [online]. http://rfiea.fr/en/articles/meanings-historic-urban -landscape [Accessed: 25 Jan 2020].
- Staničić. A. (2014). Military barracks in Serbia Strategies and limitations for use and reuse, LE CASERME - Architettura, urbanita e riuso, Milano: Politecnico di Milano, pp. 23-28.
- Sýkora, L., Bouzarovski, S. (2012). Multiple Transformations: Conceptualising the Post-communist Urban Transition, Urban Studies, Vol. 49, Issue 1, pp. 43-60. https://doi. org/10.1177/0042098010397402
- Špirić, A. (2015). Prostorni kriteriji u urbanoj obnovi industrijskih braunfild lokacija, *Građevinar*, Vol. 67, No. 09, pp. 865-877. https://doi.org/10.14256/JCE.1011.2014
- Tadić, M. (2012). Šta sa viškom vojne imovine?. Beogradski centar za bezbednosnu politiku [online]. http://www.bezbednost. org/upload/document/sta\_sa\_vojnom\_imovinom.pdf [Accessed: 8 Feb 2020].
- Tang, Y. T., Nathanail, P.C. (2012). Sticks and Stones: The Impact of the Definitions of Brownfield in Policies on Socio-Economic Sustainability, Sustainability, Vol. 4, No. 5, pp. 840-862. https://doi.org/10.3390/su4050840
- Turnšek, B. A., Stanojević, A., Jevremović, Lj. (2020). Developing a Model for Sustainable Conversion of Blockhouse Bunkers in Serbia, *Tehnički vjesnik*, Vol. 27, No. 4, pp. 1337-1344. https:// doi.org/10.17559/TV-20190518181024
- UNESCO (2011). Recommendation on the Historic Urban Landscape. The General Conference, 36th session Paris [online]. https://whc.unesco.org [Accessed: 23 January 2020].
- Zagroba, M. (2015). Concept of revitalization of selected military facilities of Dragoons Barracks in Olsztyn, Civil and Environmental Engineering Reports, Vol. 19, No. 4, pp. 133-140. https://doi.org/10.1515/ceer-2015-0059
- Živković, M., Kurtović-Folić, N., Jovanović, G., Kondić, S., Mitković, M. (2016). Current strategies of urban and architectural conversion as a result of increased housing demands, Tehnički vjesnik, Vol. 23, No. 2, pp. 561-568. https://doi.org/10.17559/ TV-20140307161637

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