



Ena Takač, University of Belgrade, takac.e@arh.bg.ac.rs  
Jelena Ščekić, University of Belgrade, jelena.scekic@arh.bg.ac.rs  
Marko Nikolić, University of Belgrade, marko@arh.bg.ac.rs

## **APPLYING CONTEMPORARY PRINCIPLES FOR PRESERVING CULTURAL HERITAGE: A CASE STUDY OF THE MILITARY KITCHEN IN BELGRADE FORTRESS**

### ***Abstract***

The main research problem relates to the possibilities of applying contemporary principles of cultural heritage preservation in practice. Its examination is the focus of teaching in cultural heritage preservation at the Faculty of Architecture in Belgrade. In the case study of the Military Kitchen within the Belgrade Fortress, and through the development of student conceptual solutions for its revitalisation, the possibilities for translating the guidelines for preserving cultural heritage from their theoretical to practical dimensions were examined. Designing sustainable solutions for the preservation and integration of cultural heritage in the contemporary context indicates real possibilities for the simultaneous respect of the preservation principles of cultural heritage and the fitting of contemporary architectural expression.

*Keywords: cultural heritage, Belgrade fortress, Military Kitchen, contemporary principles*

## **ПРИМЕНА САВРЕМЕНИХ ПРИНЦИПА ОЧУВАЊА КУЛТУРНОГ НАСЉЕЂА: СТУДИЈА СЛУЧАЈА ВОЈНЕ КУЈНЕ У ОКВИРУ БЕОГРАДСКЕ ТВРЂАВЕ**

### ***Сажетак***

Главни истраживачки проблем односи се на могућности примјене савремених принципа очувања културног наслеђа у пракси. Његово испитивање у фокусу је наставе у области очувања културног наслеђа на Архитектонском факултету у Београду. На студији случаја Војне кујне у оквиру Београдске тврђаве, а кроз развој студентских идејних решења за њену ревитализацију, испитане су могућности за превођење смјерница за очување културног наслеђа из њихове теоријске у практичну димензију. Осмишљавање одрживих рјешења за очување и интегрисање културног наслеђа у савремени контекст, указује на реалне могућности за истовремено поштовање принципа очувања културног наслеђа и уклапање савременог архитектонског израза.

*Кључне ријечи: културно наслеђе, Београдска тврђава, Војна кујна, савремени принципи*

## 1. INTRODUCTION

### 1.1. DEVELOPMENT OF CONTEMPORARY PRINCIPLES ON THE PRESERVATION OF CULTURAL HERITAGE

Cultural heritage has been a subject of people's interest since ancient times, primarily through the relationship of generations to the past. However, it took many centuries to understand the need for the protection of cultural monuments and cultural heritage, and therefore, the formation of methodologies for an organised and more efficient approach to its preservation [1]. The gradual evolution in the approach to the protection of cultural heritage can be traced from the first half of the 20th century, which marked the development of international charters and organisations dealing with the protection, presentation and promotion of cultural heritage globally. The formation of organisations such as: The International Council on Monuments and Sites (ICOMOS), The United Nations Educational, Scientific and Cultural Organization (UNESCO), The International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), Council of Europe, resulted in deepening awareness of the importance of preserving cultural heritage as well as in the formation of international documents, charters and declarations. The documents verified by these organisations provided important definitions of the term heritage and a set of principles for its preservation, which are still relevant and indispensable starting points for heritage research. Within the framework of documents, declarations and charters important for the study of cultural and natural heritage, the concepts of cultural and natural heritage, principles and guidelines for their protection, presentation and promotion in the contemporary context are defined, aligned with the imperative of preserving their natural and cultural-historical values. Also, globally recognised charters, declarations, conventions, and recommendations represent an attempt to transform the theoretical thought about the importance of cultural heritage preservation into its practical application in the process of cultural heritage restoration in the contemporary context. Accordingly, their study is a prerequisite for dealing with cultural and natural heritage in the contemporary context.

Taking into consideration the subject and problem of this research paper, which refers to the contemporary principles of revitalisation, presentation and promotion of cultural and natural heritage examined in the case study of the Military Kitchen within the Belgrade Fortress, the importance of studying the Landscape Convention from Florence [2], Charter of Cultural Routes from Quebec [3] and Document of Authenticity from Nara is especially emphasised [4]. Within these documents, the concepts of cultural and natural heritage, cultural landscape and cultural routes are more closely defined. Moreover, the potential of viewing cultural and natural heritage through the concept of protection, presentation and promotion of authenticity of cultural and natural heritage, as well as presentation and promotion of landscapes and cultural routes, due to which cultural and natural heritage is perceived as an inseparable part of the environment in which it is located, is displayed. The importance of studying cultural and natural heritage authenticity is especially highlighted by recognising the value of cultural and natural heritage that should be protected, presented and promoted in the contemporary context. According to the Document on Authenticity, authenticity encompasses the subject of trustworthiness of a particular source of information that can be linked to several attributes of the heritage source, from form to substance and other qualities [5]. The term authenticity thus defined indicates the complexity of authenticity as a quality of heritage, but also its significance in the process of preserving heritage, which requires a comprehensive overview of all its values - material and immaterial, but also a dedicated search for the truth that should be preserved, presented and promoted appropriately in the contemporary context. The importance of the Document is particularly emphasised when integrating contemporary architecture into spaces with pronounced natural and cultural-historical values, where the preservation of all existing cultural-historical layers, which built the identity of the cultural heritage over time and influenced its current state, is an imperative in the protection process, presentation and promotion of cultural heritage in the contemporary context [6].

Application and respect of the principles of protection, presentation and promotion of cultural and natural heritage defined in internationally recognised documents, charters and declarations, along with examination of the possibility of their implementation within projects of protection and revitalisation of natural and cultural heritage through contemporary architecture expression, represents a possible way for integration of natural and cultural heritage into contemporary trends, and for seeing them as an integral part of the space in which they are located, which is also sought through the case study of the Military Kitchen within the Belgrade Fortress.

## 2. DEVELOPMENT OF EDUCATION IN THE FIELD OF CULTURAL HERITAGE PRESERVATION AT THE FACULTY OF ARCHITECTURE IN BELGRADE

Within the University of Belgrade - Faculty of Architecture, special attention is paid to educating young colleagues and future architects about the importance of cultural heritage - its values, authenticity, and integrity, but also its potential in establishing sustainable development and improving the environment. Within the framework of the first-degree studies - Bachelor and Integrated academic studies of architecture, and through teaching in numerous compulsory courses in the field of history and theory of architecture and protection of cultural heritage - students, first of all, learn about the imposing world architectural heritage from different historical periods, from prehistory to the contemporary moment. Furthermore, students acquire basic knowledge about cultural heritage - its meaning and significance in relation to the contemporary context. Through the presentation and analysis of important internationally verified documents in the field of cultural heritage preservation defined by relevant organisations such as UNESCO, ICOMOS, ICCROM and the Council of Europe, students are introduced to the contemporary principles of cultural heritage protection and its adequate integration into the contemporary context. On the other hand, within the framework of the second-degree studies - at the Master's and Integrated academic studies of architecture and through numerous elective courses - students are enabled to expand and practically apply previously acquired theoretical knowledge about architectural heritage in the local context, using examples of cultural heritage in the Republic of Serbia.

It is precisely within the elective course Medieval Fortified Cities in Serbia that students in the first year of the Master's academic studies in architecture and the fourth year of Integrated academic studies in architecture can apply the previously acquired theoretical knowledge in the field of cultural heritage preservation practically, through the development of students' conceptual solutions for protection and revitalisation of the specific example of medieval cultural heritage in the Republic of Serbia. The selection of a case study that will represent a research ground for examining the alternative future of a medieval cultural monument is made in relation to factors:

- availability of relevant sources of information - archival material, literature and other;
- the current state of the cultural monument - the degree of its deterioration;
- accessibility to the cultural monument;

In addition to educating students about the importance of cultural heritage and the adequate application of contemporary principles for its preservation in the contemporary context, the main goal of the research within this elective course includes an examination of the possibility of preserving all the values of the cultural heritage, its authenticity and integrity while perceiving the cultural heritage as an integral part of the contemporary context and way of life. Special attention is devoted to examining the character of new contents and functions that should be incorporated into restoring cultural heritage, with the aim of better integration into the contemporary context and ensuring its survival for future generations. On the other hand, it is necessary to ensure that newly introduced contents and functions do not threaten the survival of inherited values. As a result, an important segment of work within the elective course represents the study of relevant documents and contemporary principles of cultural heritage preservation, which form the necessary theoretical basis for any action on cultural heritage in the practice of its preservation. Therefore, the research methodology within the elective course represents a combination of theoretical and practical research, divided into 5 main research phases:

- Presentation and analysis of relevant international documents, charters, declarations, conventions and contemporary principles of cultural heritage preservation;
- Analysis of successful examples of world architectural practice in the field of cultural heritage preservation in the contemporary context;
- Analysis of selected case studies of medieval cultural heritage in the territory of the Republic of Serbia - analysis of historical development, analysis of the urban, spatial, social, political, cultural and historical context, analysis of architectural and artistic characteristics, analysis of the current state and technical protection measures used so far;
- Development of students' conceptual solutions for the revitalisation of a selected case study of medieval cultural heritage as a representation of its alternative future;
- Valorisation of students' conceptual solutions in relation to the degree of success in simultaneously preserving all inherited values and integrating cultural monuments into contemporary trends;

based on which it can be determined to what extent it is possible to transform the theoretically defined guidelines for the preservation of cultural heritage into their practical dimension, with the simultaneous use of contemporary architectural expression and the introduction of new contents and functions aligned with the contemporary moment.

### **3. CASE STUDY OF THE MILITARY KITCHEN WITHIN THE BELGRADE FORTRESS**

Considering the increasingly pronounced inadequate modern construction in the immediate vicinity of the Belgrade Fortress, recognised as a cultural monument whose values are endangered, the question of its protection, revitalisation, presentation and promotion presents the basis for its further life. Due to its imposing cultural-historical values, continuity of duration through different historical periods, and the availability of relevant sources of information about cultural heritage over time; the Belgrade Fortress was selected as an adequate testing ground for examining the possibility of protection and revitalisation of a cultural monument in the contemporary context.

#### **3.1. THE POSITION AND IMPORTANCE OF THE BELGRADE FORTRESS IN THE CONTEMPORARY CONTEXT**

Due to its exceptional geostrategic position and historical circumstances, Belgrade was created and developed over a broad period of almost two millennia. It thus influenced the history of European nations and states [7]. Its origin and development are primarily related to the area of the Belgrade Fortress, and today, it represents a complex and layered monument with more or less preserved material remains from all historical epochs and stages of development [8].

The new period of the Belgrade Fortress is linked to its rapid decline that began after the Second World War. The development paths of the modern city have led to rifts in the ramparts of the old Fortress and, thus, to the integrity of this monument. The new road cut through the Lower Town of the Belgrade Fortress, and the outer elements of the fortification were gradually covered with park areas [9]. Accordingly, the Belgrade Fortress finally lost its defensive significance, which led to the development of a new period in the life of this imposing space and a specific cultural monument adorned by the layering of heritage from all epochs of Belgrade's development. The layered nature of this monument was recognised by the Department for the Protection of Cultural Monuments within the Art Museum, and in 1946, a decision was made declaring the Belgrade Fortress [10] a cultural asset of exceptional importance and thus placed under legal protection. The beginning of systematic archaeological research was facilitated by declaring it a cultural asset of exceptional national and international importance. Starting in 1948, they are continuously carried out to this day, providing extensive data for evaluating and applying technical protection measures over the Belgrade Fortress.

The specificity of the Belgrade Fortress necessitated the application of concrete measures of technical protection and revitalisation on each part of the fortification and historical buildings [8]. The ways of using the Fortress as a whole, and within that, the purpose of individual buildings, were of great importance for solving the way of including this protected area in the urban structure of Belgrade. A crucial role in this was played by the park development that had already started, which spread from the area of Kalemegdan to the western part of Upper Town between the two world wars [11]. This process caused the Fortress with its fortification and park to be combined into an open-air historical park. The basic concept of the revitalisation and arrangement of this cultural monument was aimed at its presentation as a monument of the history of the city of Belgrade and as a city park area with accompanying sports and recreational facilities (Figure 1). The condition in which the remains were found, as well as general conservation principles based on the preservation of the integrity of the monument, dictated general approaches to the protection of the Belgrade Fortress. The problem of lack of space that would contribute to the revitalisation of the Belgrade Fortress by introducing contemporary content was one of the first tasks that the Institute for the Protection of Cultural Monuments of the City of Belgrade faced in the first decade of its work. As for this problem, the Institute has decided that revitalisation should be the primary goal because it greatly influences the conservation approach to the protection of this cultural monument. In other words, it was insisted that in defining the new purposes, the Belgrade Fortress's monumental properties should be considered. In this way, a symbiosis of the historical and contemporary life of the monument should be created.

Following the above-mentioned, the Institute proposed a program of future uses of certain parts of the Fortress, which primarily gravitate towards cultural-educational, catering, and sports-



recreational content. A successful example of the revitalisation of the remains of the fortifications of the Belgrade Fortress is undoubtedly represented by the Despot's Tower, which has corresponded with its contemporary purpose as the Ruder Bošković National Observatory for decades. The success of the revitalisation of the Despot's Tower indicated the well-established conditions in determining a new purpose for the monuments in the area of the Belgrade Fortress, which were foreseen by the Institute in the 1970s of the last century.

However, despite the well-planned contemporary contents of monuments and spaces, contemporary needs have caused some of the contents to exceed the anticipated capacities, which are conditioned by the existing remains, and the courts of the Basketball Club "Crvena Zvezda" and the Zoo are intended for relocation.



*Figure 1. Appearance of Belgrade fortress*

*(Up: Belgrade fortress, link: <https://shorturl.at/ekyz4> (10. 2. 2024); Down left: Appearance of the Upper town of Belgrade fortress link: <https://shorturl.at/hqC58> (10. 2. 2024); Down right: Appearance of the Lower town of Belgrade fortress, <https://shorturl.at/jqyMX> (10. 2. 2024))*

Among the recent successful works on the revitalisation of monuments within the Belgrade Fortress, the project "Revitalisation, conservation and reuse of the Nebojša Tower in the old part of Belgrade", which was carried out with the participation of the Faculty of Architecture in 2009 [12], certainly stands out. By reactivating Nebojša Tower as a museum space with a Congress centre, the development of potential and new contents within the Lower Town of the Belgrade Fortress was made possible. According to the above-mentioned, the Belgrade Fortress, with its imposing cultural and historical values and constant challenges in preserving and presenting its monumental properties, represents an ideal testing ground for examining the contemporary principles of

protection and revitalisation in a contemporary context. Taking into account the contemporary theoretical understanding of cultural heritage as a non-renewable resource and one of the essential factors of sustainable development, we come to the point of view that it is necessary to re-evaluate the Belgrade Fortress with all the changes that are the results of decades of research, protection and revitalisation of discovered material remains from all eras of its development. Through ratified international conventions and charters, new values were established that opened the possibility of checking the existing valorisation based on the original state [8]. This was, first of all, stimulated by the recognition of intangible cultural heritage and a new category of heritage - cultural landscape, which caused a change in the interpretation of values from material to a combination of material and immaterial, i.e. values as the interaction of a man, nature and built space. Contemporary principles of protection and preservation of cultural heritage point out the necessity of redefining the area of the Belgrade Fortress as the city's historical core, which stems from changed and expanded understandings of values. Observing international recommendations and the importance of the Belgrade Fortress for the creation and development of the city, it is feasible to apply contemporary approaches in defining methodological procedures for its protection and revitalisation. Thus, the potential of this cultural monument would be used with the aim of its better integration into the structure and functions of the contemporary city.

### 3.2. ANALYSIS OF CULTURAL AND HISTORICAL VALUES OF MILITARY KITCHEN

On the ramparts of the Lower Town of the Belgrade Fortress, between the Gate of Carlo VI and the Nebojša Tower, there is a building of the former smelter, the Military Kitchen (Figure 2).

Information about the origin of this building is unknown. However, it was preserved until 1941, and information about its existence within the Lower Town of the Belgrade Fortress can be seen in only a few drawings and photographs. Professor Gligorije Elezović and architect Petar Popović gave the first information about the architectural dimensions and position of this building only in 1937. In their research, they indicated the existence of the Military Kitchen facility in the Lower Town as early as the first half of the 19th century, publishing two Turkish plans of the Belgrade Fortress where its dimensions could be seen. On those plans, this object was marked and called "Military Kitchen" [13]. During the first half of the 19th century, this building was used as a smelter, while in the second half of the century it was used as a kitchen.



Figure 2. The position of Military Kitchen within the Belgrade Fortress  
(link: <https://www.beogradskatvrđjava.co.rs/wp-content/uploads/2014/07/Mapa-Beogradske-tvrđjave-i-Parka-Kalemegdan.jpg> (29. 3. 2024))

At the beginning of the 20th century, large chimneys were demolished because modern cauldrons for cooking food were introduced. In place of those chimneys, new lower chimneys were built, which were demolished with the cessation of the kitchen function. In the last years before the Second World War, the Military Kitchen served as a horse barn and a car garage (Figure 3)[8].



The Military Kitchen building, in its original dimensions, remained undamaged during the First World War and until the beginning of the Second World War. On the other hand, other buildings in its vicinity were demolished. The demolition of the Military Kitchen began in 1941 during the occupation of Belgrade. The reason for the demolition was because it "damaged" the appearance of the new park in Lower Town. Of course, this decision could not stand in the way because of the lack of a law protecting historical monuments. However, the building was not completely demolished; it underwent certain changes. First, the multi-pitched roof and annexe of the building were demolished so that only the main body of the building remained, one facade, which is an integral part of the fortification ramparts. There were semicircular arched double doors and windows on the front facade wall, which still represent its architectural specificity today. According to these characteristics, it could be concluded that the Turks built this building after the Austrian occupation because the bricks of the Austrian format were used. Based on the above mentioned, it can be concluded that the Military Kitchen building, from its inception to the present day, has gone through several transformations that reflect changes in military, technological and social circumstances, which caused this building, that is part of the Belgrade Fortress, to be recognised as a cultural monument with exceptional cultural-historical and architectural values.

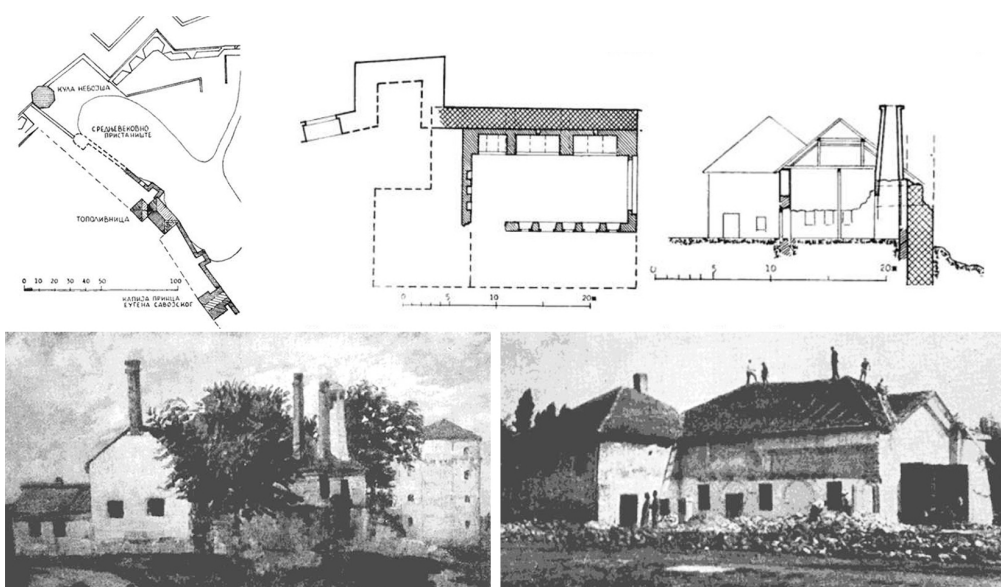


Figure 3. View of Military Kitchen from the first half of the XX Century  
(Up: Situation, Floor plan and Section, source: D. Jovanović, "Topolivnica Prvog srpskog ustanka", pp. 124 and pp. 128, 1955; Down: Views of Military Kitchen, source: D. Jovanović, "Topolivnica Prvog srpskog ustanka", pp. 123 and pp. 127, 1955)

### 3.3. ANALYSIS OF APPLIED TECHNICAL PROTECTION MEASURES

Although the Military Kitchen is an integral part of the Belgrade Fortress, it was in very bad condition until 1964, when conservation and restoration work began. The preservation of the Military Kitchen consisted mainly of conservation work with a partial restoration of the missing part of the front facade with openings. The conservation and restoration works on preserving the Military Kitchen took place in three stages. The works on the restoration of this building began in 1962, when the architectural recording started, which followed the analysis and identification of its structural condition. When photographing the building, serious damage was observed to the extensive walls, which were demolished to the ground level in some segments. Based on the data obtained from the architectural survey, a plan was established to implement technical protection measures that would enable the future life of this building. The first plan of preservation included the consolidation of the remains of the Military Kitchen and cleaning the area around the building. The plan first secured the southwest wall, leaning into the field, and therefore was in the most critical condition. In addition to the above-mentioned, according to the plan, conservation and restoration were carried out on the stone facade walls by adding the missing parts with bricks. The roof was made of wooden construction, four-gable covered with tiles [8]. However, although it can be said that the approach and plan for the preservation of this building conveyed an enviable level of respect for the authenticity and integrity of a monument, it must be pointed out that this plan made one mistake,

which is reflected in the decision not to return three magnificent chimneys that were a significant and recognisable element of this building.

The last adaptation plan for this cultural monument was drawn up in 1971 and represents the state of the building today. The adaptation plan established hygienic and health conditions that enabled the placement of workspace within this facility to study and preserve archaeological artefacts found on the site. With the adaptation project, ventilation holes were very carefully implemented within the northwestern wall niches, representing the positions of the former chimneys that provided adequate conditions for preserving valuable artefacts. Today, in this building, which was intended for preserving artefacts according to the adaptation plan from 1971, there is a complementary content - the Centre for the Research of the Belgrade Fortress within the Archaeological Institute of SANU [14]. At present, all movable archaeological findings from the Belgrade Fortress, as well as all documentation and photographs of research works, are stored within this building. However, the revitalisation with exclusively scientific and research content has prevented its availability for visits and tours.



Figure 4. Current state of the Military Kitchen

(Up: Floor plan and Section, source: Documentation of The Cultural Heritage Protection Institute of the City of Belgrade (10.2.2024); Middle: Military Kitchen and its surroundings, link: <https://shorturl.at/rwKU7> (10.2.2024); Down left: The main Facade of Military Kitchen, link <https://beogradskevesti.info/vojna-kuhinja-beogradska-tvrđjava/> (10.2.2024); Down right: Interior of Military Kitchen, link: <https://shorturl.at/GVX59> (10.2.2024))



Based on the above-mentioned, it can be concluded that the Military Kitchen within the Belgrade Fortress is not only an architectural building but also a living monument that bears witness to both urbanism and social changes that influenced the development of a city's identity. Due to comprehensive efforts in protection and revitalisation, this monument is in good condition today (Figure 4). However, its purpose as the Research Centre of the Archaeological Institute prevents the presentation of its potential and historical significance within the Lower Town of the Belgrade Fortress. The proximity of the recently revitalised Nebojša Tower and the Congress Centre, as well as the Gate of Carlo VI, indicates that this object needs to be given a purpose that will activate and connect this space. According to the above-mentioned, it is necessary to revise the current purpose of the building, which, in addition to preserving the cultural heritage, would also enable its integration into the contemporary trends and needs of the users.

### **3.4. POSSIBILITIES OF PROTECTION AND REVITALISATION OF THE MILITARY KITCHEN - PRESENTATION OF STUDENTS' CONCEPTUAL SOLUTIONS**

Through the development of students' conceptual solutions for the protection and revitalisation of the Military Kitchen building and its immediate surroundings, possibilities for an alternative future of an important cultural monument and an integral part of the Belgrade Fortress, which could be implemented in other spatial and programmatic segments of the Fortress, were explored. Special attention is directed towards finding the appropriate contemporary architectural expression and functions that would satisfy the needs of the contemporary way of life of the cultural monument but also preserve and adequately display all the found values of the cultural heritage. As part of the research on the elective course, two students' conceptual solutions particularly stood out, which, to the greatest extent, managed to find a compromise in establishing the relationship between the old and the new in the process of protection and revitalisation of the Military Kitchen. Their detailed presentation is described in the continuation of this paper.

#### **3.4.1. GROUP 1 – MUSEUM OF MEDIEVAL FOOD**

The project of students Olivera Pantelić, Milica Vujović, Jovana Stojević and Aleksa Marinski stood out due to their idea of recreating the space of the medieval market that once existed in the area of the Military Kitchen. The backbone of the project is the revitalisation of the Military Kitchen into a Museum of Medieval Food (Figure 5), and the surrounding area is arranged in such a way that it fits completely into the existing park environment. The specificity of the outdoor space design is reflected in the design of pavilion-type buildings, a kind of market stall that symbolically, but also spatially and programmatically - with their position, dimensions and function, recreate the former ambience of the market. On the other hand, these objects take on functions that align with the contemporary moment of their use, such as a souvenir shop, information desk, wine shop, sale of spices, sale of ceramic products and unique spaces for displaying medieval food and music. Moreover, the project envisages recreating the former position of the pier and restoring the pedestrian bridge over the existing remains through the design of the water surface - an artificial lake. Thus, the Lower Town of the Belgrade Fortress would get an additional ambient quality that would attract visitors to use it actively for recreation and walking in a dominantly natural environment. Another important element of the project presents its relationship with the remains of the Belgrade Fortress - ramparts, towers, Nebojša Tower and Gate of Carlo VI. The project envisages the entire stretch from the Gate of Carlo VI to the Nebojša Tower to be connected by the introduction of footbridges that would allow viewing of the remains of cultural heritage, but also an unhindered crossing over the traffic road that currently separates the Nebojša Tower from the rest of the Belgrade Fortress, disrupting the perception of the space as a unique spatial program unit. The students envisioned the conservation of the found remains of ramparts above which the footbridge stretched. In contrast, the remains of towers in the immediate vicinity of the Military Kitchen were restored and revitalised by the project into exhibition spaces with inserted vertical communications - panoramic elevators. Both the towers and the footbridge are designed in a contemporary architectural expression, using steel structures, perforated corten steel and glass (Figure 6). The Military Kitchen building itself was revitalised in such a way as to fully preserve its existing values and characteristics, including the existing dimensions of the building, positions and dimensions of facade openings, stone and brick facade cladding, roof design, positions of structural elements and vaults inside the building. On the other hand, new contents necessary for the functioning of the Museum of Medieval Food have been introduced into the interior of the building, such as an information desk, exhibition spaces, a presentation hall and a restaurant. All the newly introduced contents are designed using wood, steel, and glass as appropriate materials that clearly distinguish

between the old and the new in protecting and revitalising cultural heritage. The specificity of the interior of the Military Kitchen presents a centrally placed fishing boat that points to the former purpose of the fish market and invites visitors to learn about the way of life and food in the area of the Belgrade Fortress in the Middle Ages through viewing the exhibition.

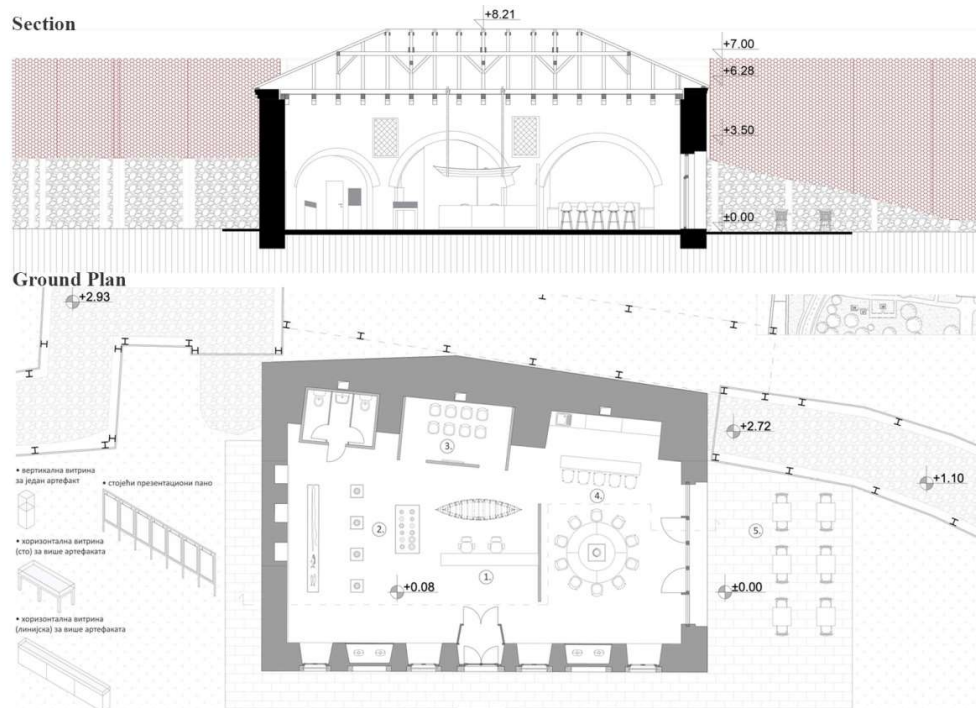


Figure 5. The Students' Proposal – Technical Drawings.  
(authors: O. Pantelić, M. Vujović, J. Stojević, A. Marinski, 2024)



Figure 6. The Students' Proposal – Ambient Views.  
(authors: O. Pantelić, M. Vujović, J. Stojević, A. Marinski, 2024)

### 3.4.2. GROUP 2 – CULTURAL AND EDUCATIVE CENTRE

The project of students Jovana Ćirović, Tanja Radivojević, Marina Selenić and Nikola Ribarić stood out due to its contemporary architectural expression and integration with the existing character of the area of the Lower Town of the Belgrade Fortress. At the urban planning level, the project envisages the connection of different segments of the Belgrade Fortress into a single whole. By introducing a footbridge over the remains of ramparts and towers in the immediate vicinity of the Military Kitchen, the entire stretch from the Gate of Carlo VI to Nebojša Tower is connected to allow visitors to see different cultural and historical layers of the past (Figure 7). Furthermore, the footbridge is intended to solve the existing problem of the road that physically separates the Nebojša Tower from the rest of the Lower Town. In addition to introducing a footbridge processed in a combination of steel constructions and corten steel, new pedestrian paths were formed in the ground floor arrangement, activating the Military Kitchen's surrounding area. In the area of the former dock, the new paths plunge into a specific natural environment surrounded by water surfaces, which becomes a new area for outdoor exhibitions. The project envisages the conservation of the remains of ramparts and towers near the Military Kitchen, over which a footbridge will be formed for their viewing. A panoramic elevator has been placed in the position of the former tower, the height of which recreates the former volume of the tower and enables the vertical connection of the footbridge with the park area. The steel staircase forms another form of vertical communication between the footbridge and the ground floor (Figure 8).

The project's specificity presents the membrane encompassing the Military Kitchen building and places it in a glass volume. Its function is twofold - it protects the Military Kitchen building from atmospheric influences and other negative factors and forms a distinction between the inherited and new elements in the space. The membrane is designed in a combination of glass and steel elements of small dimensions, which forms a transparent effect in relation to the Military Kitchen building, which, together with corten steel walkways, panoramic elevators, and stone remains, becomes an example of the harmony of old and new in a culturally-historically and naturally challenging space (Figure 9). The Military Kitchen building was revitalised in such a way that all its found values were preserved and appropriately presented, including the existing materialisation, the building's volume, the position and dimensions of the facade openings, the roof, structural elements and vaults inside the building. The Military Kitchen became a cultural and educational centre that promoted the values of the Belgrade Fortress and the Military Kitchen in different periods of their development. The revitalisation project foresees the insertion of a gallery level, which increases the spatial capacity of the building. This type of intervention is feasible due to the great height of the Military Kitchen, so it doesn't disturb its original dimensions. Newly introduced facilities include exhibition spaces of different characters - presentation rooms, audio-video zones, exhibition displays in combination with service areas, information desk and catering facilities - a restaurant in the glass membrane zone gets its extension as a winter garden.

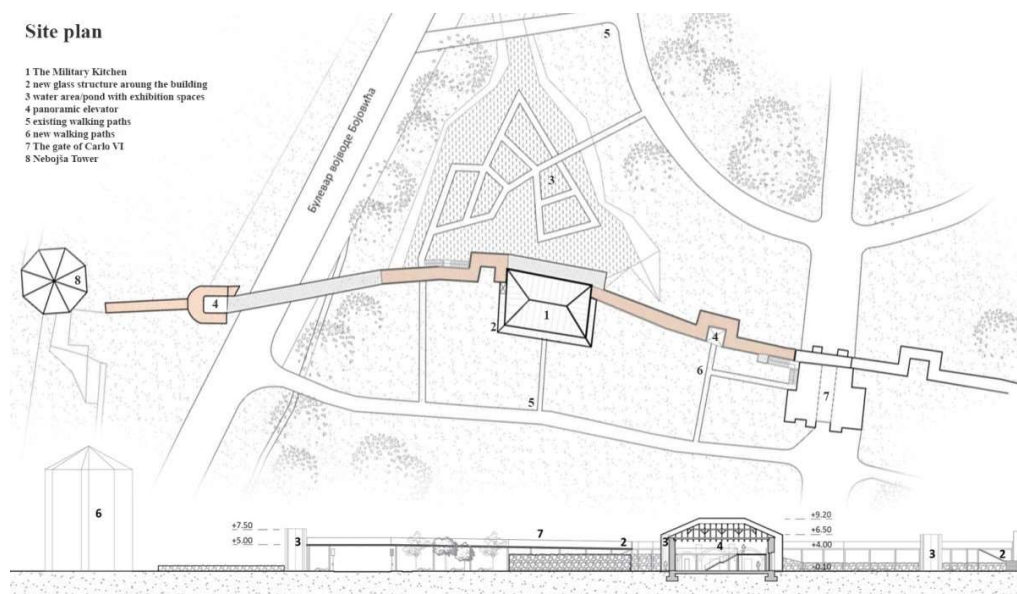
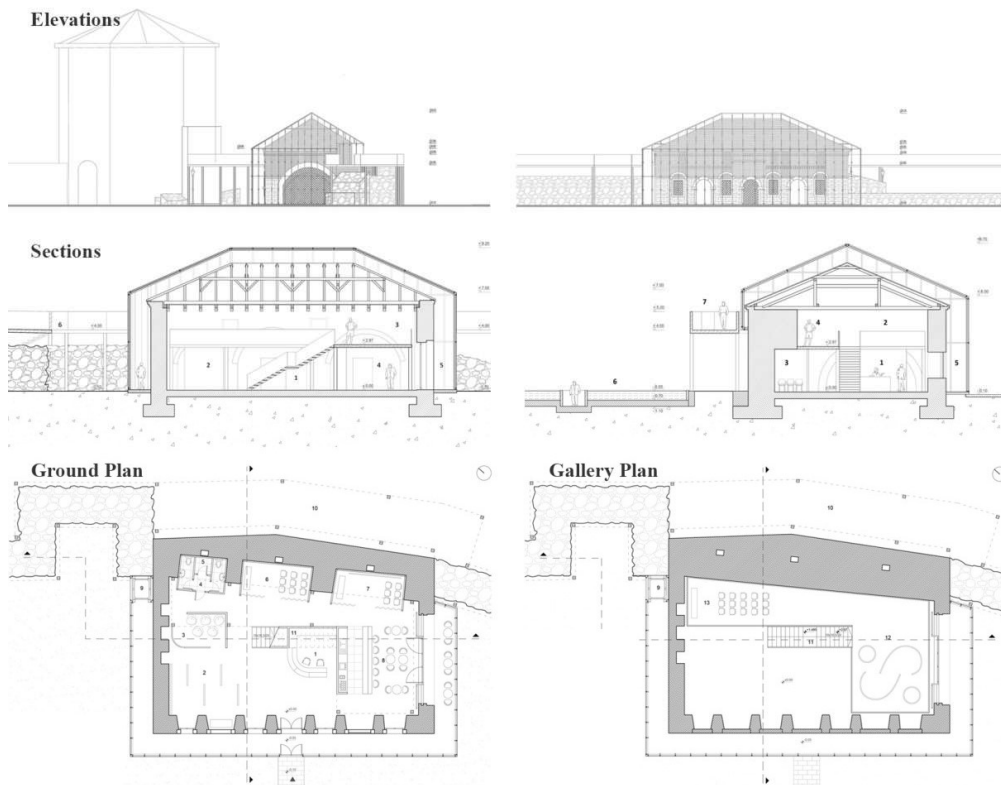


Figure 7. The Students' Proposal – Site Plan.  
(authors: J. Ćirović, T. Radivojević, M. Selenić, N. Ribarić, 2024)





*Figure 8. The Students' Proposal – Technical Drawings.  
(authors: J. Ćirović, T. Radivojević, M. Selenić, N. Ribarić, 2024)*



*Figure 9. The Students' Proposal – Ambient Views.  
(authors: J. Ćirović, T. Radivojević, M. Selenić, N. Ribarić, 2024)*



## 4. DISCUSSION

An important aspect of the research within the elective course refers to the critical analysis of projects for the protection and revitalisation of the Military Kitchen and its surroundings. Through the valorisation of students' conceptual solutions, it is possible to see to what extent the contemporary principles of preserving cultural heritage have been respected; the relationship between authentic remains, inherited values and contemporary architecture; the character of the new purposes and their relationship with the previous purpose of the object. Valorisation was carried out concerning a set of criteria. The fulfilment of these criteria within the projects indicates the students' awareness of the importance of applying contemporary principles of preserving cultural heritage and the necessity of introducing new content to integrate cultural monuments into the contemporary context better. The set of criteria includes:

- Preserving the authenticity of spatial organisation - preservation of the original organisation of the space, spatial program zones and communication positions;
- Preserving the authenticity of structural assembly - preservation and reuse of authentic structural elements (pillars, beams, walls, roof structures);
- Preserving the authenticity of stylistic features - preservation of authentic facade elements, dimensions of facade openings, decorative plastic (if any), and facade cladding;
- Preserving the ambience and spirit of the place - preservation of the previous purpose of the object or its presentation, preservation of all material and immaterial values of the object and its surroundings that participate in the formation of the spirit of the place;
- Introducing new purposes - refers to purposes that are complementary to the previous, which ensure the active use and survival of the cultural monument for future generations, and which do not impair the established values of the cultural monument;
- Applied materials and principles of sustainability - compatibility of new materials with authentic materials of cultural monuments, sustainability of applied materials and application of sustainable solutions that improve the quality of the environment;

Based on the valorisation of the students' conceptual solutions, it is observed that both projects fully respect the existing spatial characteristics of the cultural monument. Moreover, they successfully integrate new purposes from the domain of culture and education and connect them with the existing values of the object, its historical development and its way of use over time. When it comes to preserving the ambience and spirit of the place, both projects subtly incorporate contemporary architectural expression, spatially and visually separating the new architectural elements from the authentic. By introducing additional outdoor content, they improve the ambient characteristics and the quality of the environment. The valorisation of both projects of protection and revitalisation of the Military Kitchen is thoroughly presented in the table below.

PROJECT	CRITERIA 1	CRITERIA 2	CRITERIA 3	CRITERIA 4	CRITERIA 5	CRITERIA 6
	preserving the authenticity of spatial organisation	preserving the authenticity of structural assembly	preserving the authenticity of stylistic features	preserving the ambience and spirit of the place	introducing new purposes	applied materials & principles of sustainability
1	<ul style="list-style-type: none"> <li>• the positions of authentic walls</li> <li>• the positions of current program zones</li> <li>• the relationship between outdoor/indoor space</li> <li>• the existing building's height</li> </ul>	<ul style="list-style-type: none"> <li>• protection of authentic constructive elements</li> <li>• reuse of authentic constructive elements</li> <li>• integration with new architectural and constructive elements</li> </ul>	<ul style="list-style-type: none"> <li>• the positions of facade openings</li> <li>• the dimensions of facade openings</li> <li>• the existing slope roof</li> </ul>	<ul style="list-style-type: none"> <li>• preservation of the existing object's volume and materials</li> <li>• incorporation of the walking paths and elevators to activate the area around the building and connect it to its surroundings</li> <li>• reactivation of the market area</li> </ul>	<ul style="list-style-type: none"> <li>• exhibition areas</li> <li>• educational content (presentation areas)</li> <li>• commercial content (restaurant, gift shops, market stalls)</li> <li>• gathering areas (outdoor park design, water area)</li> </ul>	<ul style="list-style-type: none"> <li>• usage of authentic materials in combination with steel, corten steel, timber, glass</li> <li>• applied materials are reusable</li> <li>• outdoor space activation with water area and greenery improves the environment</li> </ul>
2	<ul style="list-style-type: none"> <li>• the positions of authentic walls</li> <li>• the positions of current program zones</li> <li>• the relationship between outdoor/indoor space</li> <li>• the existing building's height with introduction of the gallery plan</li> </ul>	<ul style="list-style-type: none"> <li>• protection of authentic constructive elements</li> <li>• reuse of authentic constructive elements</li> <li>• integration with new architectural and constructive elements</li> </ul>	<ul style="list-style-type: none"> <li>• the positions of facade openings</li> <li>• the dimensions of facade openings</li> <li>• the existing slope roof</li> <li>• the introduction of new protective glass structure respects the existing stylistic features</li> </ul>	<ul style="list-style-type: none"> <li>• preservation of the existing object's volume and materials</li> <li>• incorporation of the walking paths and elevators to activate the area around the building and connect it to its surroundings</li> <li>• reactivation of the outdoor spaces</li> </ul>	<ul style="list-style-type: none"> <li>• exhibition areas (indoor and outdoor)</li> <li>• educational content (presentation areas)</li> <li>• commercial content (restaurant, gift shop)</li> <li>• gathering areas (outdoor park design, water area)</li> </ul>	<ul style="list-style-type: none"> <li>• usage of authentic materials in combination with corten steel &amp; glass</li> <li>• applied materials are reusable</li> <li>• outdoor space activation with water area and greenery improves the environment</li> </ul>

Figure 10. The Valorisation of Students' Proposals.  
(authors: E. Takač, M. Nikolić, J. Šćekić, 2024)

## 5. CONCLUSION

The research methodology presented in this paper indicates the real possibilities for the implementation of theoretical principles and concepts in the practice of sustainable preservation of cultural heritage while at the same time preserving all its values and authenticity but also fitting contemporary architectural expression into spaces with pronounced cultural and historical values. Referring to the principles of international charters and conventions, the main goal of this paper is to spread knowledge about the possibilities of protection, revitalisation, presentation and promotion of the cultural heritage of the Belgrade Fortress with a focus on its integration into contemporary trends. The application and respect of the principles in the field of cultural heritage preservation defined in the framework of internationally recognised documents, charters and declarations, along with examining the possibility of their implementation within the framework of cultural heritage revitalisation projects through contemporary architectural expression, represents a possible way to integrate cultural heritage into contemporary trends, and perceiving them as an integral part of the space in which they are located, which is what is being sought through the case study of the Military Kitchen.

Through work on specific topics related to the research, valorisation, protection and revitalisation of cultural heritage as well as design in protected areas, the teaching process at the University of Belgrade - Faculty of Architecture enabled students of the Master's and Integrated studies of architecture, future architects, to see the problems and challenges in preservation of medieval monuments - their historical and urban context, developmental stages, cultural, urban and architectural values. A particular focus is directed to examining and comparing various possibilities for protecting and revitalising medieval monuments in the contemporary context and by introducing new, complementary contents harmonised with the contemporary use of buildings. The results of the research presented through the case study of the Military Kitchen within the Belgrade Fortress indicated the possibility of integrating contemporary architecture into spaces with pronounced cultural and historical values. The main task was to devise sustainable solutions that, on the one hand, would preserve the cultural and historical values, authenticity and integrity of the Military Kitchen within the Belgrade Fortress and, on the other hand, ensure its revitalisation and high-quality integration into the immediate urban environment, which has, despite the carelessness, preserved a recognisable historical ambience. In conceiving the future approach to the presentation and integration in the contemporary life of the Military Kitchen, the emphasis was placed on comprehensive research of its duration, from the time of its creation to the present time, and the discovery of specific cultural value and character that are the basis of its preservation in the future. According to the above-mentioned, the students, through their conceptual solutions for the revitalisation of the Military Kitchen and the Lower Town of the Belgrade Fortress, filled it with numerous contemporary cultural, educational and artistic contents that are connected with the character and importance of the place, enabling its active life in the future. This case study indicates that, in order to preserve a recognisable and authentic historical environment, it is necessary to incorporate international recommendations to a greater extent into the contemporary practice of protection and revitalisation of cultural heritage, with the aim of its adequate integration into the contemporary context.

## LITERATURE

- [1] M. Jovanović, *Muzeologija i zaštita spomenika kulture*. Beograd, Srbija: Filozofski fakultet, 1994.
- [2] Council of Europe. *European Landscape Convention*; Council of Europe: Florence, Italy, 2000. Available online: <https://rm.coe.int/1680080621> (accessed on 10 February 2024).
- [3] ICOMOS (International Council of Monuments and Sites), *The ICOMOS Charter on Cultural Routes*. ICOMOS: Québec, Canada, 2008. Available online: [https://www.icomos.org/images/DOCUMENTS/Charters/culturalroutes\\_e.pdf](https://www.icomos.org/images/DOCUMENTS/Charters/culturalroutes_e.pdf) (accessed on 10 February 2024).
- [4] ICOMOS (International Council of Monuments and Sites) *The Nara Document on Authenticity*; ICOMOS: Nara, Japan, 1994. Accessed: <https://www.icomos.org/charters/nara-e.pdf> (accessed on 10 February 2024).
- [5] M. Nikolić, *Kulturno nasleđe i pitanje autentičnosti*. Beograd, Srbija: Arhitektonski fakultet, 2022.
- [6] M. Roter Blagojević, G. Milošević, R. Jadrešin Milić, M. Nikolić, "A new life of the Ottoman fortress Ram", *Journal of Cultural Heritage* 1, pp. 20-24, 2013.

- [7] M. Popović, *Tvrđave i ostaci utvrđenih gradova, Publikacija 6 – Beograd*. Beograd, Srbija: Javno preduzeće Beogradska tvrđava, 2008.
- [8] M. Nešković, *Beogradska tvrđava od vojnog utvrđenja do spomenika kulture*. Beograd, Srbija: Zavod za zaštitu spomenika kulture grada Beograda i Arhitektonski fakultet, 2021.
- [9] M. Popović, *Beogradska tvrđava*. Beograd, Srbija: Zavod za zaštitu spomenika kulture grada Beograda i Republički zavod za zaštitu spomenika kulture, 1991.
- [10] Institute for the Protection of Cultural Heritage of City of Belgrade [https://beogradskonasledje.rs/kd/zavod/stari\\_grad/beogradska\\_tvrđjava.html](https://beogradskonasledje.rs/kd/zavod/stari_grad/beogradska_tvrđjava.html), (accessed on: 10 February 2024)
- [11] M. Nešković, “Zaštita i revitalizacija Beogradske tvrđave”, u: *Glasnik DKS*, br. 32, str. 172-178, 2008.
- [12] Nebojša Tower, <https://shorturl.at/anpX2> (accessed on: 10 February 2024)
- [13] D. Jovanović, “Topolivnica Prvog srpskog ustanka”, u: *Godišnjak grada Beograda*, knjiga 2 str. 123-132, 1955.
- [14] Belgrade Fortress, <https://shorturl.at/agxFT> (accessed on: 10 February 2024)