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The impact of topology on museum experiences of visitors – Museums of Prizren

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ABSTRACT

In the recent trends of re-formatting the concept and definition of museums, the number of reached visitors is closely related to their interest in the collection and curatorial program and the quality of the museum buildings' physical spaces. Numerous studies have recently discussed the effect of spatial layout and topology in determining the pattern of visitors' movement, influencing their 'path of cultural and educational experience.' This research deals with the five current museums of Prizren in Kosovo. Direct observations and comparative analysis aim to provide factual data to assist museum managers, curators, and designers improve museum design solutions regarding space layout.

KEYWORDS

museum layout, topology, spatial configuration, visitors experiences, museums of Prizren

1. INTRODUCTION

According to the new definition of museums by the International Council of Museums [1], museums perform collection, conservation, and interpretation by promoting different experiences in education, recreation, and knowledge exchange. Functionally, these objects distinguish for the fact that: they *collect* things that testify to civilization as well as the social and cultural development of a country; they *conserve* materials and objects that would otherwise be subject to destruction; they *exhibit* to communicate with the audience; they *interpret* by engaging the audience in discussions, tours, and other interactive programs and, based on the demands and developments of the 20th century, museums nowadays also *serve* as community cultural centers, even migrating the word 'museum' to *centers of art, science, history, and heritage* [2].

The criticisms of the last twenty years on the planning and operation of museums relate to three essential components: the building itself, the exhibition, and the program [3]. Special attention has been paid to the analysis of the design and performance of museums, both theoretically and practically, in the relationship between the *layout of the space* and the *layout of the objects*. According to Tzortzi [4], to understand this relationship and the fact that architecture affects the experience of museums, researchers must ask three essential questions: whether spatial design makes a difference, in what way spatial design is related to the curatorial intent; and in what way spatial configuration of galleries and objects indicates the visitors' experiences.

1.1. Spatial configuration and its effect on experiencing museums

Spatial design is vital for visitors' direction in important museum areas, including thresholds and exhibition rooms. The configuration of the spaces constitutes a determinant of the movement pattern of the visitors, affecting their experience within the museums. The layout of the space determines how the visitor moves, how they are informed about the exhibition's content, and how they receive academic and cultural knowledge [5].

Spaces with simplicity in configurational extent, with a single path of movement, stimulate a chronological presentation of the collection, in which the visitor can experience the collection in a more particular way and at the same time show awareness to other visitors (Fig. 1a). At the same time, spaces that offer many options and alternative routes enable visitors to be more exploratory during their visit to the museum, offering them the opportunity to show sensitivity spontaneously for specific works (Fig. 1b). This option reduces other visitors' awareness, leading to shorter but more irregular visitor movement paths [6].

1.2. Museum spaces – the concept of topological distance or depth

The influence of the configuration in determining the direction of movement and visitors' experience can be understood more clearly if analyzed about the distance and the depth of museum spaces. According to the concept of the 'topological distance of museums', museum spaces can result in integrated or segregated areas [7]. The more spaces that have to be crossed from the entrance hall (which is taken as 0 space) to get to the x space where a given collection is presented, the more the total of the areas that must be crossed to reach the intended destination increases. Consequently, integrated spaces mathematically result in lower numerical sums, while segregated spaces result in higher ones [6].

In addition to the numerical method, the connectivity of spaces can be analyzed through $abcd$ topology, evaluating each room with a , b , c , and d , depending on how many areas a single space is connected to. A -spaces are associated with only one other space, b -space with two, and so on (Fig. 1c). This causes a -spaces to be qualified as dead-end spaces, which stimulate backtracking from a b -space. The more a -spaces present in the spatial configuration of the museum, the more dead spaces result in the museum building, causing visitors to return to the same path again. According to this

relation, c and d spaces promote visitors' free and spontaneous movement, giving them more opportunities to determine their experience in a museum [7].

1.3. Visitors' choices

The decision to visit a museum involves a process that requires cognitive and physical effort. A critical moment for the visitors might be the 'pre-structuring of the visit,' which means a kind of preparation of the visitor for the functional layout of the museum, the spatial configuration, the division of the collections, and other important information, which can be obtained at the entrance hall [8]. The sensitivity of satisfaction, interest, and evaluation follows this decision-making process.

2. BACKGROUND OF THE PROBLEM

Operational management and the proper function of Kosovo museums, as a particular category of cultural institutions, remains a sensitive issue given that Kosovo still needs to define the legislative structure for museums, despite a late commitment (November 2022) to improve this situation. The Concept Document for Art and Culture, recently approved by the Government of Kosovo [9], strategic objective no. 2, defines the organizational, functional reformation, and general consolidation of museums and other public cultural institutions. Museums are also prioritized within Kosovo's National Strategy for Cultural Heritage 2017–2027 [10].

Kosovo counts dozens of historical, archeological, and ethnological museums. However, there are no published statistics regarding the number of museum institutions that operate at the central or local level. Only Prizren counts seven existing museums, some of which are not functional at all, some only work in specific periods due to the insufficient number of staff, and others, even though they are helpful,

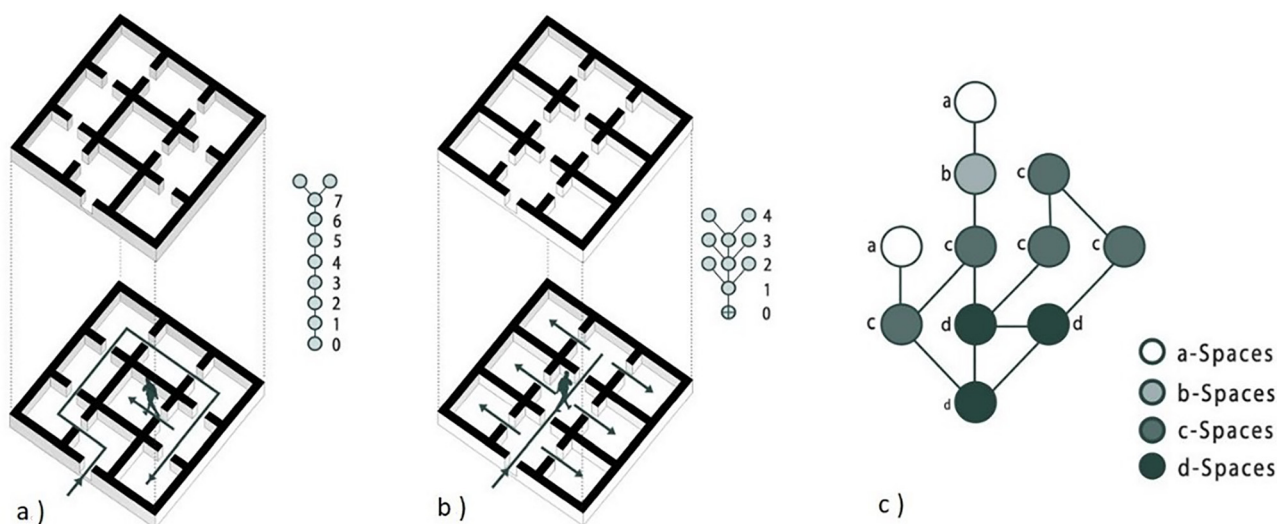


Fig. 1. Sample of spatial configuration in museums, a) single path; b) alternative routes, c) the $abcd$ topology (Source: Author)

they have a substantial need for re-designing exhibitions and re-conceptualizing their curatorial programs [11]. Like many public facilities in Prizren, most fail to meet the primary conditions of the design and construction norms defined by legislation, including accessibility for all categories of users [12].

Prizren has been known since antiquity, as a unique place in the Balkans, for the values of cultural heritage, civilizations, and different religions [13]. It is also distinguished among other Kosovo cities for its historical center, known as the most outstanding zone of urban heritage in Kosovo [14]. However, besides many tourists, only 4.57% of tourists prefer visiting a museum, compared to other potential touristic activities during their stay in Prizren [15]. This low percentage of tourists' interest compared to the great potential that a large number of museums offer in Prizren and the historical and cultural values of their collections, raise the question about the efficiency of the services provided in the contemporary museums, the way the exhibits are organized, and the programs with which they currently operate.

3. CASE STUDY

This research focuses on the analysis of five leading museums of the city of Prizren, Kosovo, including the monumental Complex of the Albanian League of Prizren, Archaeological Museum - Hamam of Shemsidin Bey and Clock Tower, Hydro - Power Plant - Electrical Museum, Ethnological Museum - Shehzade's House and Museum of the Fortress of Prizren (Fig. 2).

Most of Prizren's museums operate in cultural heritage monuments, otherwise, then the Prizren Fortress Museum, is a recently built building. Except for the Hydro-Power Plant - Electrical Museum, they are part of Prizren's Historical Center [16] (Fig. 3).

4. METHODOLOGY

This research inspects the spatial configuration of the five leading museums of Prizren about the experience that the

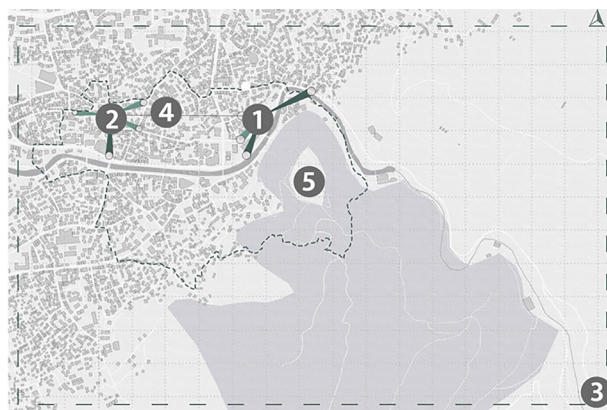


Fig. 3. Map of Prizren Museums included in the research (Source: Author)

spatial arrangement and the layout of objects trigger to potential visitors, aiming to provide factual data that can assist museum managers, curators, and designers in improving museum design solutions in terms of the layout of space and form of objects. The following has been undertaken to achieve the intended results: examining of the theoretical basis, research of the existing literature, closed group discussions, questionnaires, and field studies. More specifically, the main techniques used in this research, in a detailed and chronological manner, include:

- *Detailed documentation of the five museums included in the research* in the absence of accessible architectural documentation, it was necessary first to document the existing state of the museums, including the identification and registration of the physical spaces and the way the collection is displayed;
- *Two closed discussions (one with museum employees and the other with citizens) and a questionnaire with 115 respondents* to gain a lasting impression regarding the shortcomings and why the museums of Prizren are rarely visited, two focus groups and a questionnaire were conducted;
- *Comparative spatial configuration analyses of the five museums included in the research* After the consolidation of the research material (architectural projects of five museums), comparative analysis of the topology of the



Fig. 2. Main museums of the city of Prizren, Kosovo (Source: Author)

spaces and the identification of the type of depths and distances (based on the theoretical framework) were conducted;

- *Direct site observation of two selected museums, the Archaeological Museum - Hamam of Shemsidin Bey and the Monumental Complex of the Albanian League of Prizren* to directly observe the direction of movement of visitors and the influence of layout in determining their experience in the museum, the measurement of visitors' movement were undertaken in the two museums, which are open regularly. Measurements and observations were made in time intervals of 1 h, three times a day (11:00–12:00, 13:00–14:00, 15:00–16:00) on a typical working day. Mental mapping principles [17] were applicable.

4.1. Results and discussion

The data obtained from the discussions, questionnaires and comparative analysis of the theoretical framework have been commented on through textual and graphical disclosure. The analysis of visitors' mobility has been simulated with the help of computer programs to create a more realistic overview of the noted results.

Results of this paper are classified into three categorized pillars: general (fieldwork) findings, users' concerns, and users' choices and experiences, paying exclusive attention to the third pillar, which encloses in a detailed way the issue of the role of spatial configuration in defining visitors' movements and experiences.

5. FINDINGS

5.1. General findings

The five museums included in this paper constitute diverse case studies, being museum institutions that operate in buildings with different architectural typologies, ranging from historic Turkish bath facilities - Hammams, educational facilities with religious character - Madrasas, individual traditional housing, facilities of state meetings, and those of electro-energy production. Also, they vary in collections, having the presence of archaeological, historical, ethnological, and economic museums. Additionally, buildings where these museums operate belong to different historical periods, from the XV-th century onwards, and have been consolidated as museum institutions since the 70s.

Based on field observations, the general condition of the analyzed museums' results could be better regarding how the collections are displayed. Except for the Archaeological Museum (Fig. 4), it is noticeable that a structured curatorial program needs to be included in other museums. This can be seen in how the exhibits are displayed, the need for adequate museum furniture, and the need for more installment of a curatorial narrative. Excluding Archaeological Museum and the Fortress Museum, in all other museums, visitors need to be made aware of the type of exhibition and the periods of the artifacts. Also, how the objects (artifacts or/and collections) are organized does not orient them toward a well-structured cultural and educational narrative.



Fig. 4. The condition of the exhibition galleries Archaeological Museum (Source: Author)

5.2. Users' concerns

Only 33% of respondents who have visited one of the Museums of Prizren at least once described their condition as good, showing a high percentage of dissatisfaction among the other majority of visitors. Among the concerns listed by the respondents, the following stand out: weak curatorial program, lack of information related to the exhibition, and the need for more orientation of the visitors while exploring the exhibits. 54.9% of respondents answered that their visit to the museum was for their interest in the cultural heritage monument rather than the presented collection itself. This speaks to the importance of physical

structures – museum buildings, in some instances-can dominate the concept of the museum institution itself.

During the focus group discussions, the users (including employees, professionals, and visitors) have listed among the problems and proposals the need for the reconceptualization of museum spaces and their curatorial programs.

5.3. Users' choices and experiences

5.3.1. Topology of museum buildings in Prizren. Compared to the *abcd* method of topology (Fig. 5), the

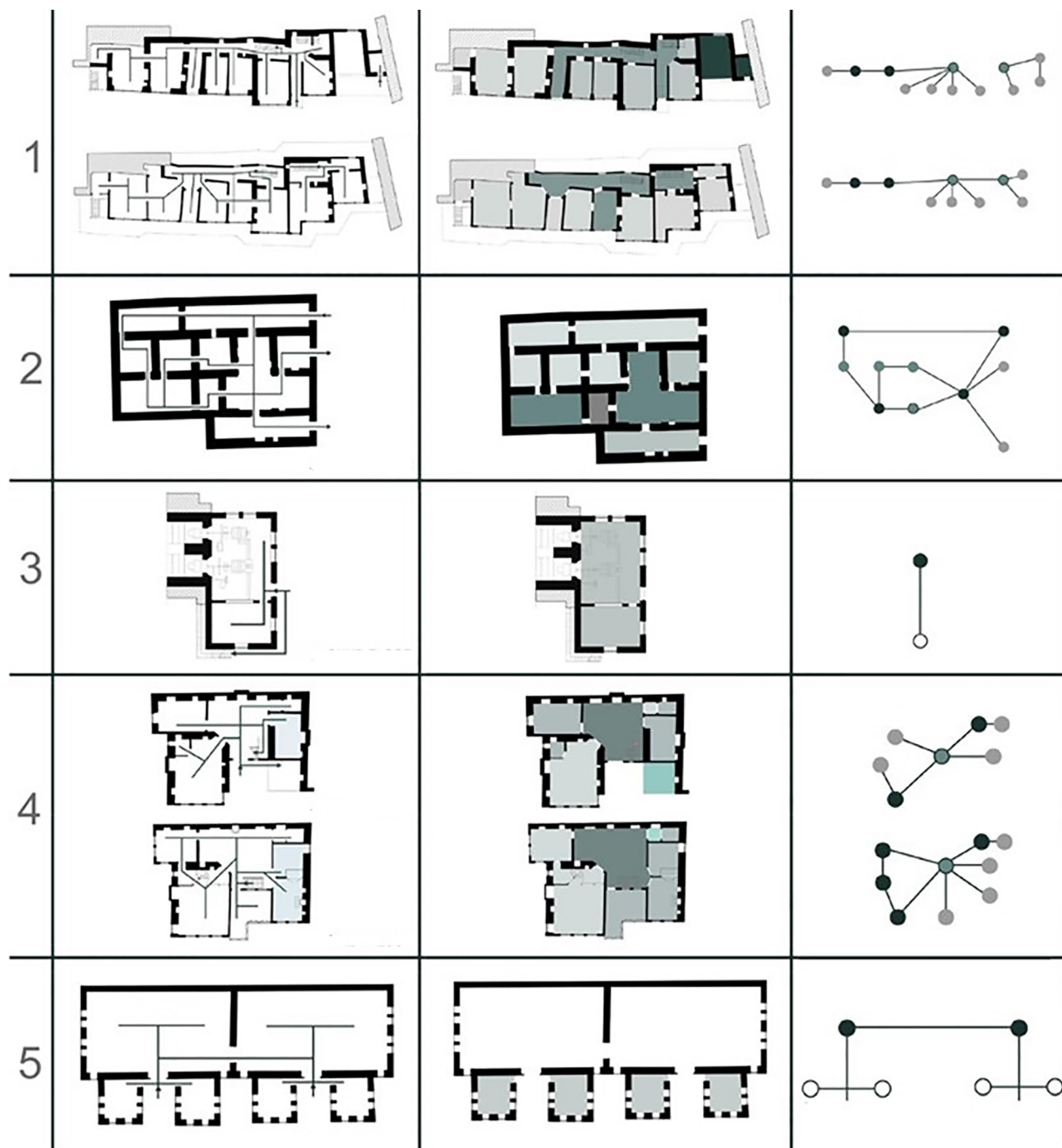


Fig. 5. Topological characteristics of museum buildings in Prizren (Source: Author)

Archaeological Museum turns out to be favorable about the movement of visitors since only two space areas of this building are categorized as *a*-spaces or *dead-end* spaces. The presence of *b*, *c*, and *d* spaces allows visitors to have more options in choosing their direction of movement, and exiting the museum sometimes happens in a different order than entering it. This situation changes in the case of the Ethnological Museum, which produces more *a*-spaces due to the entrance hall being positioned in the central position (*a*-space) and the connection with only one other space in eastern and western directions. This stimulates the exit to the main hall immediately after visiting the side galleries of the museum, happening in the same direction as the entrance route.

The Archeological and Art Gallery of the Museum of the Albanian League of Prizren, due to the longitudinal configuration of the building, and the entrance and exit position in the same place, produces many *a*-spaces. This affects that visits to the museum's unique galleries are made by passing several times in the central corridor, through which the departure from the museum is also made. This situation is not found in the museum's history department (Albanian League Building), which consists of only one space is conventionally an *a*-space.

In the case of the Fortress Museum, even though the two spaces of the galleries based on the topological analysis result as *a*-spaces, the entrance-exit journey of the visitors can be made in different directions, given that the spatial configuration stimulates the possibility of entering the museum from one gallery and exit from the other gallery. This relation does not apply to the Hydro-Power Plant - Electrical Museum, which, being a museum with a single open space, does not produce dead-end areas.

5.3.2. Direction of visitors' movement in two active museums of Prizren. Recordings of visitors' movements at the Albanian Connection Complex in Prizren show that most visitors prefer afternoons to visit this museum. Many visitors determine their most significant interest in the open museum courtyard as a moment to observe the two historical monuments. In the longitudinal structure of this museum, most visitors prefer the ground floor where the ethnological collection is presented. At the same time, a certain percentage of them lose interest in continuing the visit on the second floor. Due to the length of the central corridor, especially the presence of many *a*-spaces, it is noticeable that many visitors conclude the visit before reaching the last space of the galleries (Fig. 6).

Recordings at the Archaeological Museum prove that since visitors can enter and exit the building at two diametrically opposite entrances, their distribution over the entire museum surface is uniform. However, there is a greater concentration of visitors in the central part of the museum since visitors attack the main space from both entrances. The central part of the museum has the most important artifacts, which also affects the concentration of visitors in this part (Fig. 7).



Fig. 6. Analysis of visitors' movements at the Monumental Complex of the Albanian League of Prizren (Source: Author)

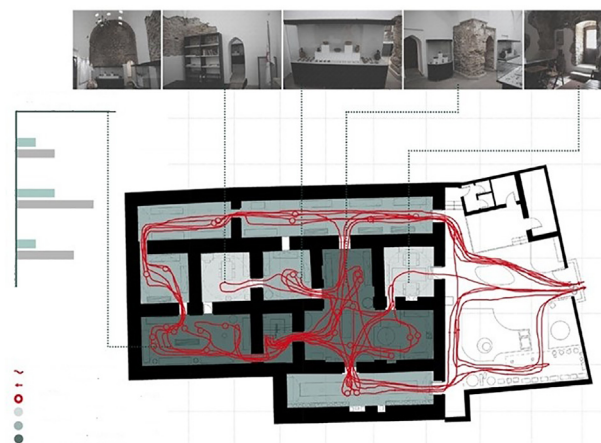


Fig. 7. Analysis of visitors' movements at the Archaeological Museum - Hamam of Shemsidin Bey and Clock Tower (Source: Author)

6. CONCLUSION

This paper reflects on the spatial configuration's effect, the building's topology in determining the visitor's movement, and the critical factors that should be considered to improve the physical, programmatic, and curatorial quality of the museums of Prizren. The analyses undertaken in Prizren's museum buildings prove that the theoretical framework already built for this definition is reasonable and applicable.

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REFERENCES

- [1] International Council of Museums approves a new museum definition. [Online]. Available: <https://icom.museum/en/news/icom-approves-a-new-museum-definition/>. Accessed: Jan. 4, 2023.
- [2] E. P. Alexander and M. Alexander, *Museums in Motion – An Introduction to the History and Functions of Museums*. United Kingdom: AltaMira Press, 2008.
- [3] D. Grewcock “Museum and the city: Place, planning and possibility,” in *Museum and design disciplines*, M. Ballarin and M. D. Mura, Eds, *Proceeding of the conference series*, Venezia, Italy, October 19, 2011, pp. 21–32.
- [4] K. Tzortzi, “Design choices, museum experiences”, in *Proceeding of the Conference Series on Museum and Design Disciplines*, M. Ballarin and M. D. Mura Eds, Venezia, Italy, October 19, 2011, pp. 33–56.
- [5] S. MacLeod, Ed., *Reshaping museum space*. Routledge, 2005.
- [6] B. Hillier and K. Tzortzi, “Space syntax: The language of museum space,” Ch. 17, in *A companion to museum studies*, S. Macdonald, Ed. UK: Blackwell Publishing, 2006, pp. 282–301.
- [7] K. Tzortzi, *Museum Space – Where Architecture Meets Museology*. USA: Routledge, 2015.
- [8] K. Skellon and B. Tunstall, “Hysterical atria,” in *Museum thresholds, the design and media of arrival*, R. Parry, R. Page, and A. Moseley, Eds, London: Routledge, 2018, pp. 33–53.
- [9] Ministry of Culture, “Youth and sports, concept-document for art and culture is approved” (in Albanian). [Online]. Available: <https://www.mkrs-ks.org/repository/docs/Vendimi-KM-Koncept-dokumenti-art-kulture.pdf>. Accessed: Dec. 10, 2022.
- [10] F. Jerliu, *National Strategy for Cultural Heritage 2017–2027*. Prishtinë: Government of the Republic of Kosovo - Ministry of Culture, Youth and Sports, 2016.
- [11] F. X. Beqiri, B. Breznica, and M. Rexha, “The museum institutions of Prizren” (in Albanian), EC Ma Ndryshe, Prizren, 2022. [Online]. Available: https://www.ecmandryshe.org/repository/docs/20_01_2023_1516766_institucionet_muzeale_te_qytetit_te_prizrenit_dokumenti_ec_ma_ndryshe.pdf. Accessed: Jan. 12, 2023.
- [12] R. Basha, “Barrier-free Park in Prizren – Visioning workshop involving persons with disability and the elderly,” *Pollack Period.*, vol. 13, no. 2, pp. 237–248, 2018.
- [13] E. Toska, “Prizren a ‘museum city’ without a museum?” (in Albanian), EC Ma Ndryshe, Prizren, 2018. [Online]. Available: https://www.ecmandryshe.org/repository/docs/180604181141_HULUMTIMI_Prizreni_qytet_muze_pa_muze.pdf. Accessed: Dec. 23, 2022.
- [14] B. Jagxhiu, “New structure in the historical context; Case Study: Contemporary shopping mall in the Historic Center of Prizren,” *Pollack Period.*, vol. 15, no. 1, pp. 233–240, 2020.
- [15] R. Ahmetaj, *Study on the Satisfaction of Tourists in Prizren*, (in Albanian). Regional Center for Cultural-Heritage, Prizren, 2019, [Online]. Available: https://mkrs-ks.org/repository/docs/Studim_mbi_kenaqshmerine_e_turisteve_ne_Prizren-QRTK-Prizren.pdf. Accessed: Dec. 6, 2022.
- [16] Legislation on historical center of Prizren, *Gazeta Zyrtare*, 04/L-066 (in Albanian), [Online]. Available: <https://gzk.rks-gov.net/ActDetail.aspx?ActID=2836>. Accessed: Nov. 27, 2022.
- [17] A. Jakupi and T. Jashari-Kajtazi, “Architectural drawing as a medium of communication, education and interaction with the community; Case study Prishtina, Kosovo,” *Pollack Period.*, vol. 13, no. 1, pp. 237–246, 2018.

