

UNIVERSITET U SARAJEVU  
PRIRODNO-MATEMATIČKI  
FAKULTET

ONLINE ISSN 2566-2880  
Year 11/Vol.11

# Journal of Tourism and Hospitality Management

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**JOURNAL OF TOURISM AND HOSPITALITY MANAGEMENT**

**Year 11/Vol.11**

**ONLINE ISSN 2566-2880**

**ISSN 2566-2872**

Editor in chief: Dr.sc. Edin Hrelja

Publisher: University of Sarajevo - Faculty of Science

Printing: 50 copies

Printing company: Coron's

Authorized person: Jasmin Hrustemović, director

Sarajevo, 2025.

Journal of Tourism and Hospitality Management is included in CAB Abstract

Journal of Tourism and Hospitality Management contains selected papers presented at the 11 th INTERNATIONAL TOURISM AND HOSPITALITY MANAGEMENT CONGRESS that have been peer reviewed. All papers were checked for plagiarism before publishing.

*This publication was approved by the decision of the Dean of the Faculty of Science, University of Sarajevo, number 01/01-285/2-2016 from 03.02.2016.*

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# GEOGRAPHICAL ASPECT OF THE VALORISATION OF THE TOURISM POTENTIAL OF THE TOWN OF ŠIROKI BRIJEG

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DOI: 10.35666/25662880.2025.11.07

UDC: 911.3:338.483.11(497.6 Široki Brijeg)

**Abstract:** The article presents the results of the research into the tourism potential of the town of Široki Brijeg from a geographical point of view. There is a valuable cultural-historical and natural heritage in the area of Široki Brijeg, as well as cultural and sports events that are significant for the tourism valorisation and future tourism development. The town is currently underdeveloped in terms of tourism, as confirmed by research, statistical data on tourist trends, and a survey of the local population. Tourism development should be based on investments and promotion of religious, cultural-historical and natural attractions important for the development of tourism, with significant projects such as Street Food Fest and West Herzegovina Fest. Naturally attractive areas and attractions should be valorised for tourism purposes in accordance with the concept of sustainable development. The area of Široki Brijeg is the most important and the most developed economic centre of the canton and significant outbound tourist centre at the international and regional level. The role of outbound tourism in the region is supported by research on the ownership of second homes and apartments in the beautiful Blidinje Nature Park. Additionally, a survey was conducted on the appealing factors of both international and regional tourist destinations, including the neighbouring Croatian coast and the Blidinje Nature Park, as well as the tourism significance and attractiveness of Mostar, Međugorje (Čitluk), and Ljubuški. The inhabitants of low Herzegovina traditionally went to the mountains – higher parts of Herzegovina - as seasonal herders in the past, and in modern times, going to the mountains - Blidinje Nature Park - is for rest and recreation. The research has shown and confirmed that Široki Brijeg is a significant outbound area, the highest number of registered second homes in the Blidinje Nature Park, near the ski resort and other settlements are owned by the residents of Široki Brijeg, and in the same locations where seasonal cattle farming settlements were located in the past. An economically developed town should take advantage of its excellent geo-traffic position in the vicinity of regional developed tourist destinations, attract a portion of visitors through tourism valorisation and attractions, and find its role in tourist flows and develop sustainable tourism.

**Keywords:** geographical aspect, tourism potentials, Široki Brijeg, tourism valorisation, Blidinje Nature Park

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## INTRODUCTION

The area of Široki Brijeg has a significant cultural and historical heritage, which is attractive in terms of tourism, from prehistoric tumuli, ancient, Roman and Medieval forts, stećak tombstone necropolises, stone bridges, mills, to significant monuments from the 20<sup>th</sup> century. The Monastery with the Church of the Assumption of the Blessed Virgin Mary and the Franciscan Gallery with its rich treasury represent the most significant and most attractive cultural and historical heritage. The Franciscans had an enormous religious, scientific, cultural, and artistic significance for the development of the Široki Brijeg area from the 19<sup>th</sup> century onward, and their special contribution to the development of the town is reflected in major infrastructure projects such as the construction of the bridge, the hydroelectric power plant, the grammar school, the student dormitory, etc.

The stećak necropolises, with rich ornamentation, represent a significant, but also endangered cultural and historical heritage: Barevište - stećak Vitko is in the National Museum in Sarajevo, Šarampovo - the most magnificent necropolis in the region, and the necropolis Lipovci, where the famous Kočerin Tablet was discovered, which testifies to the literacy, population, and the long tradition of the Catholic faith in this area. Tobacco Processing and Purchasing Station and bauxite mines bear witness to the culture and labour of past times, as well as to the first employment of female workers and the local population. The natural heritage represents the most significant tourist attraction, but also the most endangered: the area of the Lištica canyon, the Borak natural area with interesting and attractive underground and above-ground attractions, especially around Lončar's mills. In addition to its significant inbound factors, the area of Široki Brijeg, due to its economic development, represents a significant international and regional outbound region. The residents of Široki Brijeg, due to good transport connections, ownership of second homes, and other attractive factors, frequently visit the Croatian coast, Blidinje Nature Park, Mostar, Međugorje, Ljubuški, as well as attractive, more or less depopulated rural settlements in the surrounding area.

## OBJECTIVES, HYPOTHESES, AND METHODOLOGY OF THE RESEARCH

The objectives of this paper are to explore and evaluate tourist-attractive sites as potential resources for the development of tourism in Široki Brijeg. It is necessary to explore which tourist destinations, due to their spatial accessibility and attractiveness, are attractive to the residents of Široki Brijeg, and which of the local and regional tourist-attractive factors attract the local population the most.

The main hypothesis H1 – Is Široki Brijeg an inbound or outbound tourist area in terms of tourism?

The methodology used in research and valorisation of the tourism potentials of the town of Široki Brijeg is based on the analysis of the available scientific and professional literature (books and papers), spatial plan, development strategies, and statistical processing of data using Excel and SPSS, and data from the Federal Institute of Statistics. During the field survey, significant tourist locations and potentials necessary for tourism development were identified. The methods used in research are: inductive and deductive methods, synthesis and analysis method, classification method, description method, comparative method and statistical method. Given that the objective of the research was to determine the level of tourism development of the town itself, and the level of attractiveness of regional tourist destinations that are interesting to the residents of Široki Brijeg, the case study method was used to determine the level of attractiveness of the most attractive area of the Blidinje Nature Park. Using a survey method processed in Excel, with graphic illustrations, 155 respondents from the town area were surveyed.

## **SPATIAL COVERAGE AND MAIN GEOGRAPHICAL FEATURES OF THE RESEARCH AREA**

The first permanent settlement was initially called Lise, and it was mentioned in a written document from 1468. The most significant river in the area, the Lištica, also takes its name from this settlement. The first written records of four mills in Lise date back to 1477, when the Turks listed property for taxation purposes. Some authors consider that the first name for Široki Brijeg was Čemer, however, Čemer referred only to the narrow area around the Rizvanbegović mill on the Lištica, which was built in 1634 and was known as Čemer. The beginnings of more intensive settlement and expansion of the inhabited area can be associated with several key infrastructural and socio-historical factors, one of the most significant incentives being the construction of the Church of the Assumption of the Blessed Virgin Mary and the Franciscan monastery in 1846 on Brijeg, which became an important spiritual, cultural and spatial centre.

Construction of the stone bridge based on the Fr. M. Lorenzoni's design, enabled the connection of the existing permanent settlements with the new sacral and commercial centre on Brijeg.

An additional incentive to the development of the settlement was the construction of road infrastructure during the Austro-Hungarian period, which enabled better connectivity with the surrounding areas, as well as the earlier construction of mills on the Lištica, which played an important economic role in the everyday life of the local population (Dugandžić, 2006; Čolak et al., 2008, Zovko 2006).

Široki Brijeg, with an area of 387.6 km<sup>2</sup>, and the population of 28,929 (2013), population density of 74.63 inhabitants/km<sup>2</sup>, and a developed processing industry, represents the administrative and economic centre of the West Herzegovina Canton (hereinafter referred to as the WHC). Široki Brijeg consists of 34 settlements, including one primary urban settlement (6,149 inhabitants), as well as two secondary urbanised centres (Kočerina and Knešpolje) (Institute for Statistics of the Federation of Bosnia and Herzegovina, 2013; Zovko et al., 2017). The area of Široki Brijeg is a high karst area, in which three natural and geographical units can be distinguished: 1. A fertile valley located between the Čabulja mountain in the north, Trtle in the south and the lower elevations of Varda, Gvozd and Rujan (600-900 m). Four significant karst fields are: Mostarsko blato, Kočerinsko, Trnsko and Mokarsko Fields 2. North of the fertile valley, at the foot of the Čabulja mountain range, the "Mountain Rural Settlements" are located and 3 In the southern part, towards Međugorje, Čitluk and Ljubuški, there are rural settlements with characteristic Mediterranean features. The rural settlement of Čerigaj is the only spatially distinct settlement, and is situated at the junction of Trtle (690 m) and Magovnik (550 m) (Galić, 2012; Zovko et al., 2017).

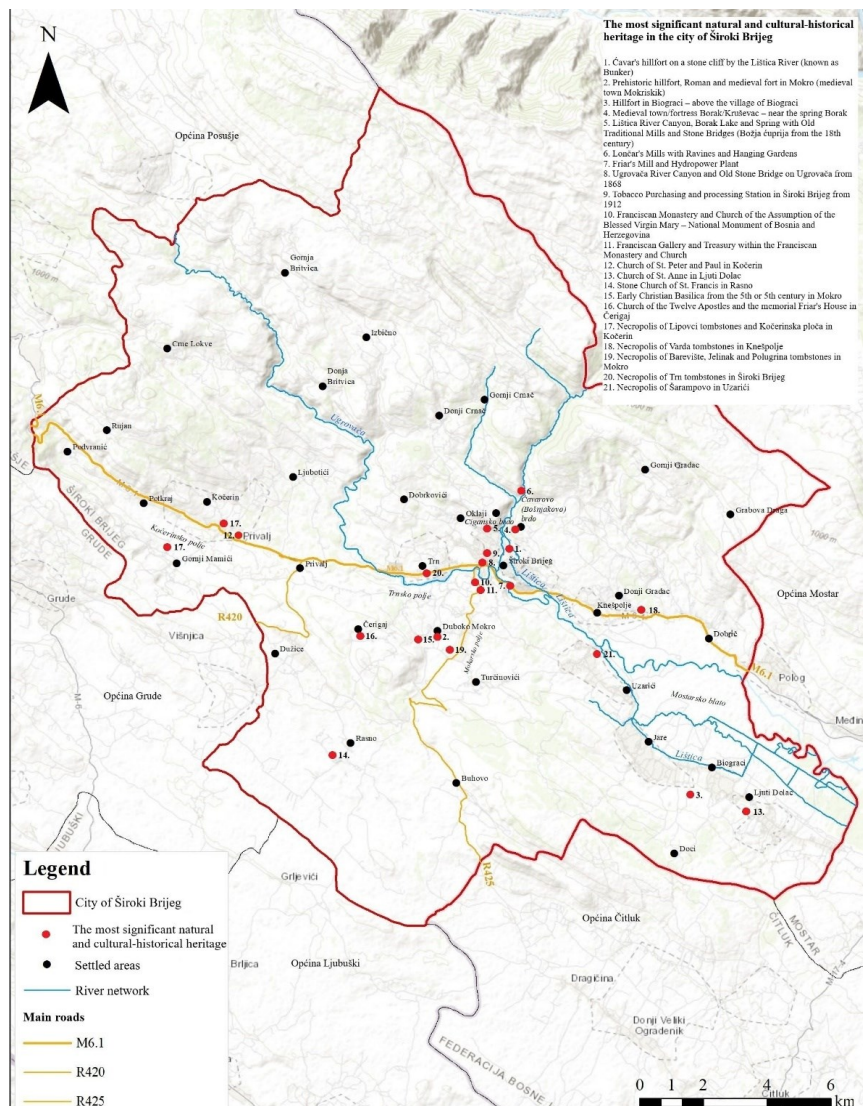
The climate of the Široki Brijeg area is predominantly temperate warm and humid classified as type C under the Köppen system, with two main subtypes: 1. Cf – temperate warm and humid, and 2. Cs – Mediterranean climate (Galić, 2012; Putica Džajić, 2024; Zovko et al., 2017). Since the 1930s, the exploitation of bauxite ore began in the Široki Brijeg area, which represents significant progress in the economic structure of the region. Factories "FEAL" and TT Cables d.o.o. Široki Brijeg are the most important manufacturing industries, which employ a large number of workers and their greatest importance at the regional and national level is that they are among the main exporters in Bosnia and Herzegovina<sup>3</sup>. In the period from 2017 to 2019, thanks to trade and manufacturing activities, Široki Brijeg recorded the highest total revenues, the highest net profit, and the largest number of employees at the cantonal level (Rotim, 1994; Čolak et al., 2008; Jurilj, 2021).

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<sup>3</sup> Internet, <https://www.jabuka.tv/cetiri-tvrtke-iz-hercegovine-u-top-10-najvecih-bh-izvoznika/> (7 January 2024)

## **CULTURAL AND HISTORICAL HERITAGE AS AN ATTRACTIVE TOURISM POTENTIAL**

Široki Brijeg is abundant in cultural and historical heritage, which holds significant potential for specialised types of tourism. Traces of human presence can be traced from prehistoric tumuli, through ancient, Roman, and medieval fortifications, as well as stećak necropolises, up to sacral buildings, stone bridges, mills, and significant 20th-century monuments such as the Tobacco Processing and Purchasing Station. Numerous archaeological finds testify to the continuous settlement of this region from prehistoric times to the modern era. Tumuli, hillforts and necropolises of stećak tombstones are located in almost all settlements in this region, which testify to the settlement of this region since prehistoric times. Significant tumuli and hillforts are: 1. Large prehistoric tumulus and hillfort on Cigansko Brdo hill, 2. Tumuli above Soldo's houses (along the Oklaji-Dobrkovići road) 3. Tumuli in the area of Radešice, 4. Markanović hillfort, 5. Hillfort (Krstine) and tumulus on Čavarovo (Bošnjakovo) hill, 6. Tumuli on Štražarnica hill, 7. Tumuli at the edge of Mokarsko Field (Dugandžić, 2004; Dugandžić, 2006).



**Fig. 1.** The most significant natural and cultural-historical heritage in the city of Široki Brijeg

The most significant monument of cultural and historical heritage, the only official monument of national importance in Široki Brijeg, is the Franciscan Monastery and the Church of the Assumption of the Blessed Virgin Mary, along with a horticulturally designed courtyard and a century-old oak tree, and the inner monastery garden. This protected area encompasses a zone extending 150 metres in length. The Franciscan Gallery (Franciscan Treasury) is an important cultural institution and custodian of sacral and artistic treasures.

The most significant monuments of the cultural and historical heritage of the Široki Brijeg are, which are also of regional or national importance for this region, are: 1. St. Peter and Paul's Church in Kočerin, 2. St. Ana's Church in Ljuti Dolac, 3. Prehistoric hillfort, Roman and medieval fortress - medieval town Mokriskik, early Christian basilica from the 5th or 6th century and the necropolis of stećak tombstones – in Mokro, 4. Necropolises of stećak tombstones with rich ornamentation: Barevište necropolis with 13 stećak tombstones, Jelinak with 11 stećak tombstones and Polugrina cemetery with 25 stećak tombstones (Mokro), Šarampovo necropolis with 11 stećak tombstones and Grovište with 15 stećak tombstones (Uzarići), Lipovci necropolis with 4 stećak tombstones and the Kočerin Tablet (Kočerin), necropolis of stećak tombstones and Trn cemetery with 20 stećak tombstones, 5. Church and memorial Friar's House, Čerigaj (Bešlagić, 1971; Glavaš, 2006; Dugandžić, 2004; Marić and Spajić, 2006, Karačić, 2016).

The Franciscan Monastery and the Church of the Assumption of the Blessed Virgin Mary - the name of the town of Široki Brijeg is derived from the topographical position of the Franciscan Monastery and church on the hill called Široki Brijeg. Since the 19th century, the Franciscans have played a crucial spiritual, cultural, intellectual and infrastructural role in the development of this area. Their activities included the construction of churches, monasteries, schools, economic facilities, roads and bridges, which directly stimulated both the settlement and urbanisation of Široki Brijeg. In 1844, the Franciscans relocated their seat from Kreševo to the rural settlement of Čerigaj, where they built the first Franciscan residence. During the Ottoman rule in the 15th and 16th centuries, all Catholic sacral buildings in Herzegovina were destroyed. The town of Široki Brijeg expanded toward the end of Ottoman rule and continued to grow under Austro-Hungarian administration. In order to obtain permission from the Ottoman authorities to build a new church, the Franciscans, with the help of the local population, buried several older stećak tombstones and stone blocks on the Široki Brijeg hill<sup>4</sup> (Zovko, 2006). With the approval of the Ottoman authorities for the construction of a church, the Franciscans purchased the bare hill from Ahmet Kurt in 1845 for 145 gold ducats (Rotim, 1994).

In 1846, Bishop Barišić blessed the foundation stone of the first Church of the Assumption of the Blessed Virgin Mary and monastery in Herzegovina. The church was small in size, and two large stone cisterns were constructed in its immediate vicinity. In order to connect the monastery with the main road (Mostar – Posušje), the Franciscans cut a new road route in 1892. They built a long single-story building,

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<sup>4</sup> During Ottoman rule, it was only possible to build or restore sacral buildings, or churches, only in places where they had already been built in the past.

covered with stone slabs on the land they owned, in 1860, where there were eight shops that they rented out to merchants.

In order to connect the church, monastery, and shops with the settlement that was then forming, the Franciscans built a stone bridge over the Ugrovača River in 1868. The old church was demolished in 1905, and in the same year the foundation stone for a new church in the Neo-Romanesque style was laid, based on a design by Max Maximilian David from 1906. The church was built from the grey limestone sourced from nearby quarries. The monastery complex attained its current form in 1990 with the addition of a three-storey building and a space for the Franciscan Gallery. The Franciscans also played a key role in the first electrification. They built the Franciscan mills with eight mill wheels on the Lištica in 1868. Two mills were removed in 1934, to facilitate the construction of a small hydroelectric plant, which enabled the electrification of Široki Brijeg in 1936, one of the first places in Herzegovina to receive electricity (Zovko, 2006; Dugandžić, 2006; Mikulić, 2008).

The Franciscan Gallery and Treasury – The Franciscan Treasury was restored and renovated in 1979. The Franciscans founded the Franciscan Gallery, which opened on July 25, 1990, covers an area of 300 m<sup>2</sup>, and possesses around 1,000 works of art. During the year, the Gallery organises between 10 and 15 exhibitions by prominent artists from Bosnia and Herzegovina, Croatia, and Europe. There is a significant bronze cast of the relief of the Stigmatization of St. Francis at the entrance to the Franciscan Gallery, a work by the artist I. Meštrović from 1942. The Gallery's collection comprises works by internationally acclaimed artists, including V. Bukovac, M. Bečić, B. Čikoš, E. Delacroix, I. Meštrović, de Rivera, G. Jurkić, among others, as well as pieces by regional and local artists such as A. Mikulić, S. Sikirica, G. Jurkić, and the sculptures “Penavuša” by a local sculptress (Mikulić, 2008; Karačić, 2016). By 2025, the Franciscan Gallery and its treasury hold approximately 6,000 exhibits, encompassing works from various periods—from artworks by foreign masters (13th–19th century), through classical and modern pieces, to contemporary visual expressions of global art.



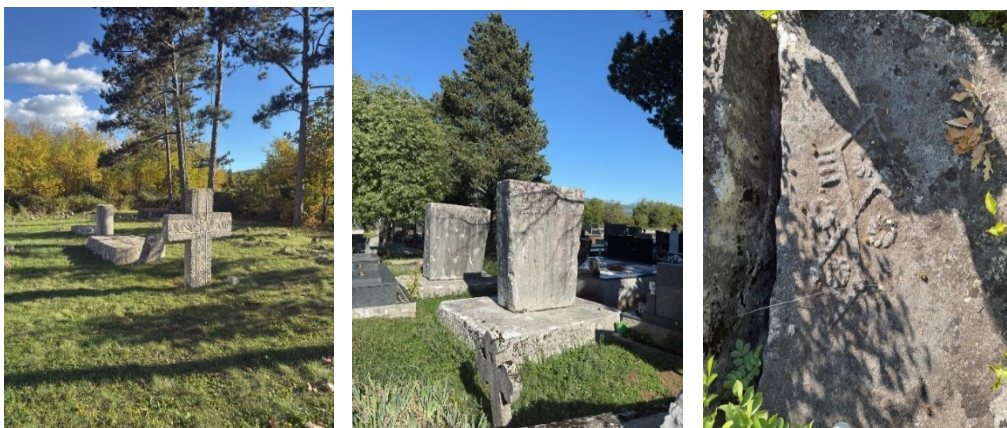
**Fig. 2.** The Franciscan Monastery and the Church of the Assumption of the Blessed Virgin Mary (Široki Brijeg), St. Ana's Church (Ljuti Dolac) and St. Peter and Paul's Church (Kočer); Source: Authors

Prehistoric hillfort, Roman and medieval fortress and early Christian Basilica from the 5th or 6th century – the medieval town of Mokriskik in Mokro – The early Christian basilica in Mokro village is believed to have been built in 5<sup>th</sup> or 6<sup>th</sup> century. Archaeological research was carried out on several occasions, the earliest experimental investigations taking place in 1958. Movable and small artefacts from the basilica in Mokro are preserved in the National Museum in Sarajevo. The investigations carried out in 1997 and 1998 contributed to a more detailed understanding of the architectural structure of this building. The basilica, measuring 24 × 18 m, was a single-nave structure with three apses, with a smaller central area designated for liturgical ceremonies.

A particularly important discovery was the baptistery with its baptismal font. The narthex (entrance area) was relatively small, and its southern section was converted into a memoriae, an enclosed space with three tombs. The building was constructed in a single building phase and remained in use until the early 7th century, when it was destroyed (Glavaš, 2006). Besides the basilica, the site also contained a prehistoric hillfort, as well as Roman and medieval fortifications measuring approximately 180 × 60 m, with the remains of a bastion discovered at the lowest point. The town or fortress of Mokriskik in Mokro was mentioned as early as 945 in the work "On the

Governance of the Empire" by Constantine Porphyrogenitus (Dugandžić, 2006; Karačić, 2016).

Necropolis of stećak tombstones with rich ornamentation in the Široki Brijeg area - Stećak, medieval tombstones, were crafted between the 12<sup>th</sup> and 15<sup>th</sup> centuries. Over the course of time, many were destroyed or concealed, whether through their reuse as building material for houses, fences, or roads, or through deterioration caused by natural weather conditions. The most significant necropolises, which are characterised by exceptionally rich ornamentation, are: 1. Barevište – located in the settlement of Mokro, this necropolis has 13 stećak tombstones located on a gentle hill by the road, near the cemetery and chapel. The stećak tombstones are known for their massiveness and exceptional ornamentation. Among them, the stećak with the inscription mentioning Vitko, which was transferred to the National Museum in Sarajevo, stands out. 2. Šarampovo - a necropolis in the rural settlement of Uzarići, which contains 11 massive and well-preserved stećak tombstones, located next to the old Catholic cemetery. The monumental stećak tombstones of Šarampovo stand out for their massiveness and specific ornamentation, making this necropolis recognisable in the Široki Brijeg area, 3. Lipovci – a necropolis of 4 stećak tombstones is located in Kočerinsko Field about a kilometre southwest of Kočerin, along the road to Mamičko Field and Podkraj. The Kočerin Tablet was found here. The most important memorial tablet, measuring 137 cm in height, with 319 characters, was written in Old Croatian Cyrillic or Bosnian Cyrillic alphabet. It was created in 1404 as a tombstone for the nobleman Viganj Milošević and contains a list of rulers from his time, which is an extremely valuable historical document, 4. Necropolis of stećak tombstones and Trn cemetery – the necropolis is perfectly integrated into the modern Trn cemetery, and stands out for its rich, relief ornamentation on the sarcophagi and crosses (Bešlagić, 1971; Dugandžić, 2004; Mikulić, 2008).



**Fig. 3.** Necropolis of stećak tombstones Lipovci (Kočerin), Šarampovo (Uzarići) i Barevište (Mokro); Source: Authors

The most notable monuments of the cultural and historical heritage of the Široki Brijeg area, which also hold regional or local significance, include: 1. Medieval town, Borak Fort (Kruševac) – near the spring of the Lištica, 2. Hillfort Biograci – Roman fort (refugium), 3. Varda stećak necropolis – Knešpolje, 4. Stone bridge over the Ugrovača – Klanac, 5. Stone Church of St. Francis – Rasno, 6. Lončar mills and other traditional mills, 7. Franciscan mill and hydroelectric power plant, 8. Tobacco Processing and Purchasing Station – center of Široki Brijeg (Zovko et al., 2017; Dugandžić, 2006).

Medieval town, Borak Fort (Kruševac) - The medieval town (Borak or Kruševac fort) is a small medieval hillfort located on a rocky slope surrounded by dense vegetation, in a naturally beautiful setting east of the spring of the Lištica. The medieval Borak fort dates back to the 15th century, has an irregular square shape, measuring 3x10 m. The walls are built of solid stone, between 1 and 1.5 m thick and between 1 and 6 m high. A cistern was found inside the fort during archaeological research. During the Middle Ages, the fort served as a strategic protection for roads, and was located at the intersection of important Mostar - Duvno roads, connecting low and high mountainous Herzegovina. The fort was conquered by the Turks in 1477 (Dugandžić, 2006; Zovko et al. 2017).

Tobacco Processing and Purchasing Station - The most significant monument reflecting the culture of life and work in Široki Brijeg from the 20th century is the Tobacco Processing and Purchasing Station, which significantly contributed to the city's cultural and economic development. The Mostar Tobacco Factory was founded in 1880, while the purchasing office, known as the Tobacco Processing and Purchasing Station or "Dogana," was opened in Široki Brijeg in 1912. Initial tobacco purchases were carried out in six temporary barracks, and construction of the new Tobacco Station began in 1930, and was completed in 1938. The complex included two large warehouses and an administrative building. At the peak of its operation, the Tobacco Station employed an average of 538 local workers per month, mostly seasonal. In 1940, the number of employees ranged from 64 to 1,074. Approximately half of the seasonal female workers were young women from rural settlements, for whom employment at the Tobacco Station was often their only source of income (Dugandžić, 2006).

## **Cultural events in Široki Brijeg**

Cultural events – which have exceptional tourist importance and attract visitors from the region and beyond, and they are: 1. Briješka zvona, a cultural and musical event that has been held since 1999, 2. Mediterranean Film Festival (MFF), a significant regional documentary film festival, 3. West Herzegovina Fest, a festival dedicated to domestic film production and arts, bringing together local and international filmmakers, 4. Gastronomic meetings "Flavours from the Stone" were held in May, but today the most popular is the regionally and internationally known Street Food Fest, which lasts three days and is held at the end of July, at the attractive location of the Široki Brijeg's Veterans Park, along the Lištica River. 5. The Municipality Day and the Feast of the Assumption are celebrated in August, attracting a large number of local, regional and foreign visitors. The Franciscan Gallery hosts exhibitions of local and foreign artists, including those from the Široki Brijeg Academy of Fine Arts, as well as occasional concerts of spiritual and popular music (Mikulić, 2008, Čolak et al., 2008).

## **NATURAL HERITAGE OF ŠIROKI BRIJEG ATTRACTIVE IN TERMS OF TOURISM**

There are two significant geomorphological monuments that are under official protection in the area of the town of Široki Brijeg: 1. Lištica spring near Borak - protected since 1965 and Pravačeva cave near the Lištica spring - under protection since 1968. Significant monuments of the city's natural heritage that have great potential for protection and tourism valorisation in accordance with the principles of sustainable development are the following: 1. Borak Spring, canyon of the Lištica River, this area includes the spring of the Lištica River, 2 km from the town centre, next to the area of Cigansko and Čavarovo (Bošnjakovo) hills, where several strong springs spring up. Pravačeva cave next to the spring has not yet been sufficiently explored from a speleological perspective and deserves additional research in order to ensure more adequate protection. 2. The Ugrovača River Canyon (Brina Canyon), the Ugrovača River springs in Rakitsko Field, 3. Ladina Canyon, the area above and below Lončar's mills, is rich in natural and cultural sites, including old cascading gardens with an irrigation system, located between canyon cliffs on both sides, and in the immediate vicinity is the insufficiently explored Kruševac fortress and several old stone bridges, such as the Roman and medieval bridge "Božja Čuprija", 4. Bačina Canyon, known for its steep limestone layers and the 50-meter-high Grkuš waterfall, 5. Dobrinjska and Resnička Draga, in the rural settlement Crnač. 6. Springs of Crnašnjica, Orovik, Žvatić, Dobrinj and Vrace, natural springs of potable water,

7. Park-forests Gelbaj, Borak spring and forest areas of Grabovina, Njivice, Puringaj, rural settlements Uzarići, Biograce, Matanović and Friars' benat, these areas represent a natural complex of category III since 1991, Lončar's mills with ravines, the spring of the Lištica with lower and upper springs. There were once about 20 mills in the area of the Borak spring, the most famous of which are Rizvanbegović's mill (Ćemer) and Friars' mill (Mikulić, 2008), 9. Mostarsko blato, a vast field stretching from Široki Brijeg to Mostar, through which the Lištica flows. This area is rich in sources of potable water that create small pools suitable for swimming and relaxation for the local population (Zovko et al., 2017; Mikulić, 2008).



**Fig. 4.** Lončar's mills, old cascading gardens with an irrigation system and old stone bridge; Source: Authors

## **SPORTS TOURIST ATTRACTIONS OF ŠIROKI BRIJEG**

Fishing is one of the earliest historically documented sports, and is mentioned in the Ottoman Defters (Records) dating back to 1585. The fish ponds in Dobrič and Knešpolje, in the Mostar Blato region, have been documented since the Ottoman and Austro-Hungarian periods. Following 1946, the formation of sports associations and clubs began, and they continue to play a significant role in the local community. Today, the most prominent sports clubs are the Croatian Basketball Club Široki Brijeg, multiple-time champions of Bosnia and Herzegovina and national cup winners, and Football Club Široki Brijeg. Tennis was introduced to the region in the 1930s and experienced rapid development in the 1990s with the construction of numerous tennis courts.

The largest and most significant tennis complex, with a hotel, restaurant, and tennis courts in a naturally beautiful and attractive setting, is the "Đulić" Tennis Center in Široki Brijeg (Rotim, 1994; Čolak et al., 2008). Today, the largest sports complex is located in Pecara, where a modern sports hall and football stadium are located. The "Đulić" Tennis Center continues to operate with a somewhat reduced capacity, while a

football camp with several pitches is located in Mostarsko Blato. The football tournament "Street vs Street" is particularly popular, and is organized according to the same rules in all towns of the WHC. Široki Brijeg organizes numerous attractive sports events that attract tourists and sports enthusiasts: international and regional basketball and football matches, indoor competitions; and the popular Street Basketball in the Široki Brijeg's Veterans Park, local football tournaments, hunting, fishing, and activities such as hiking and cycling in naturally attractive locations along the Lištica River, Mostarsko Blato, and the surrounding forest and mountain complexes contribute to the diversity and attractiveness of the sports and recreational tourist offer.

## **TOURISM DEVELOPMENT IN ŠIROKI BRIJEG**

In the municipality of Široki Brijeg (Lištica), the systematic monitoring of tourist arrivals and overnight stays began in the 1960s, during the period of the first significant tourist flows to the Croatian Adriatic coast. The first official data were recorded in 1968, and the peak of tourist activity was recorded in 1970, when 951 arrivals and 1,111 overnight stays were registered. We have more relevant data on tourist arrivals and overnight stays between 1974 and 1990.

The highest number of arrivals and overnight stays was recorded in 1985 with a total of 4544 arrivals and a total of 7037 overnight stays, and in 1987 a total of 4191 arrivals and a total of 7523 overnight stays were recorded. The majority of visitors were domestic tourists in the period from 1974 to 1983, while a significant increase in foreign tourists was recorded from 1984 to 1987, which increased the total number of visitors in the then municipality of Lištica. After 1988, until the outbreak of war, domestic tourists again made up the majority of tourists. A significant drop in tourist arrivals and overnight stays was recorded in 1990 due to the unstable political and economic situation and the war that followed in 1991.<sup>5</sup>

After several years of interruption, the statistical monitoring of tourist flows resumed in 2013. The peak in tourist arrivals and overnight stays was reached in 2018, when 2,976 arrivals and 5,258 overnight stays were recorded. Visitor numbers increased steadily until 2018, after which a decline occurred as a result of the COVID-19 pandemic in 2020 and 2021.

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<sup>5</sup> Source: Federal Institute of Statistics, Sarajevo, Federation of BH

In the period from 2022 to 2024, tourist arrivals in Široki Brijeg have shown a renewed upward trend. Based on the analysed data, it can be concluded that the number of foreign visitors is significantly higher than that of domestic visitors<sup>6</sup>.

According to the data from 2020, a total of 12 tourist accommodation facilities are registered in the WHC area, 4 of which are hotels (2 4-star hotels and 2 3-star hotels), 5 motels, 2 resorts and 1 rural tourism facility. The most significant accommodation facilities in the town of Široki Brijeg are: 1. Hotel "Park", 4 stars, 33 rooms, 2. Hotel "Đulić", 13 rooms and 3. Rooms in the household "Šeherzada", 8 rooms. In addition to officially registered accommodation units, there is an increasing number of luxuriously equipped apartments and holiday homes in the town that are rented to tourists for a short period of time for a few days or per day, but most of these capacities are not officially registered. There are 27 restaurants with a rich gastronomic offer in the WHC area, two of which are seasonal, and the other 25 are open throughout the year (Kunst, 2019; Jurilj et al., 2021).

#### **ATTRACTIVE TOURIST INBOUND AREA BLIDINJE NATURE PARK – FROM LIVESTOCK FARMS TO SECOND HOMES (CASE STUDY)**

Blidinje Nature Park (Blidinje NP) is the only managed nature reserve in the West Herzegovina Canton that has been under official protection even before the war. In addition to its extremely attractive natural landscapes, Blidinje NP features a rich cultural and historical heritage that testifies to centuries-old settlement and the traditional way of life of the local population. In the past, there was a significant mobility of herders from low Herzegovina, the areas of Mostar, Široki Brijeg, Čitluk, Ljubuški, Posušje and Grude, towards the high mountain pastures of the Blidinje Nature Park. Frequent seasonal stay in the mountains was primarily due to the inaccessibility of pasture-rich areas, the scarcity of arable land in the karst regions of low Herzegovina, and the intense summer heat. Families engaged in livestock farming owned huts, stables, storage barns, and zirates (plots for growing vegetables such as potatoes, carrots, onions, and cabbage), and spent the summer months in the mountains of highland Herzegovina. Livestock had a key economic value because in this sparse karst area it was the main source of survival and food, as agricultural development was limited. The largest number of these livestock buildings was located in Dugo Polje, a vast area located between the mountain ranges of Vran (west) and Čvrtnica and Muharnica (east).

Occasional residents from the area of low Herzegovina, with special emphasis on the town of Široki Brijeg, came from the following settlements: Crnač, Mokro, Izbično,

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<sup>6</sup> Source: Federal Institute of Statistics, Sarajevo, Federation of BH

Oklaji, the villages of Lise, Dobrkovići, Grabova Draga, Mamići, Uzarići, Rasno, Kočerin, Dužice, Ljubotići, Crne Lokve, Privalj (Popović, 2008; Jolić 2015).

Research conducted in 2017 shows that the settlements in the Blidinje NP have not been abandoned, but have acquired a new function. Residents of low Herzegovina today own second homes in the aforementioned settlements. A modern Sports and Recreation Center was built on Risovac, as well as catering facilities such as Hajdučki vrljeti, which attract visitors from low Herzegovina and neighbouring Croatia throughout the year. Entire families from the nearby urban settlements of Mostar, Široki Brijeg, Ljubuški, and the municipalities of Čitluk, Posušje, and Grude often come for an inversion from urban everyday life, and for rest and recreation in a naturally attractive landscape. It is interesting to note that the inhabitants of low Herzegovina, despite changes in their lifestyle, and after almost a century, still visit the area of highland Herzegovina seasonally, but now for completely different reasons. The study encompassed 609 second homes within Blidinje NP.

Analysis of the structural characteristics of 495 owners residing in Bosnia and Herzegovina revealed that the majority of these properties are owned by residents of Široki Brijeg, which is consistent with the historical association of ownership of livestock huts and zirates in the region. In the settlements of the Blidinje NP, a total of 209 owners of second homes reside in Široki Brijeg, with a share of 41.62% (Table 1). A large number of second homes built for recreation are owned by owners residing in the regional urban centre of Mostar, with a total of 100 second homes and a share of 20.20%. Significant shares of second homes built in the Blidinje NP are also owned by owners residing in the municipalities of Čitluk, Posušje, Grude and the town of Ljubuški, which confirms the connection between modern ownership and livestock traditions in the region (Ćavar, 2018).

**Tab. 1.** Number of owners of second homes in the settlements of the Blidinje Nature Park 2016/2017 according to the place of residence in Bosnia and Herzegovina

Municipality/Town	Risovac Rudo polje	Masna Luka Gornji and Donji Badnji	Settlements near the Blidinje Lake	Settlements in Dugo polje	Total	Share (%)
Široki Brijeg	71	71	51	13	206	<b>41,62</b>
Mostar	73	9	8	10	100	<b>20,20</b>
Čitluk	34	3	3	23	63	<b>12,73</b>
Grude	36	3	1	0	40	<b>8,08</b>
Posušje	16	6	12	1	35	<b>7,07</b>
Čapljina	18	3	1	1	23	<b>4,65</b>
Čitluk /Međugorje*	8	0	0	2	10	<b>2,02</b>
Ljubuški	7	2	0	1	10	<b>2,02</b>
Tomislavgrad	5	1	0	0	6	<b>1,21</b>
Neum	0	0	0	2	2	<b>0,40</b>
<b>Total</b>	<b>268</b>	<b>98</b>	<b>76</b>	<b>53</b>	<b>495</b>	<b>100,00</b>

\*The settlement of Međugorje is located in the municipality of Čitluk.

Source: Internal data of the public company Electric Power Company of the HZHB (JP "EP HZ HB") d.d. Mostar, Southern supply area, Mostar Plant, Doljani Work Unit, Author

The owners of second homes mostly have permanent residences relatively close to the Blidinje NP, with good transport connections, which allows for more frequent visits and use of second homes throughout the year. In the attractive tourist settlements of Risovac and Rudo Polje, where the ski resort is located, the largest number of owners is from the Široki Brijeg and Mostar areas, while in the settlements of Masna Luka, Gornji and Donji Badnji, and around Blidinje Lake, owners from Široki Brijeg predominate. In line with the example of second homes ownership in the Swedish mountain areas, second homes ownership in the Blidinje NP is developing in attractive mountain areas close to urban agglomerations, where personal connections and the level of real estate prices significantly influence the choice of location. Most of the facilities are located at a distance of about 30km from the owner's permanent residence, while the average distance is 87km.

A higher concentration of second homes ownership is recorded near ski-lifts, but in protected areas construction is strictly controlled (Lundmark, Marjavaara, 2005; Müller 2013). Following the designation of Blidinje NP as a national park, construction regulations are expected to become even stricter, permitting development only in zones specified by the spatial plan. Due to all of the above, the construction of second homes is currently intensified in Blidinje NP, and some buildings disrupt the natural environment and degrade the space because, in the architectural sense, they were not built in accordance with the natural environment and tradition.

## **ANALYSIS OF INBOUND AND OUTBOUND TOURIST ATTRACTIVE FACTORS IN THE TOWN OF ŠIROKI BRIJEG**

Based on the conducted research and analysis of inbound tourist-attractive factors for the development of tourism in Široki Brijeg, it can be concluded that there are potential and significant tourist attractions, such as cultural, historical and natural heritage, as well as significant sports, cultural and gastronomic events. However, based on the available statistical data on tourism trends in the Široki Brijeg area from 1974 to 2024, we can see that tourism is not sufficiently developed. Although there are attractive tourist locations, their full development, valorisation and visitors are prevented by the lack of organized tourism activities, the absence of a tourist organization, tourist offer, marketing promotion, and investments in the development of cultural, historical and natural heritage, and the promotion of sports, gastronomic and cultural events.

Statistical data show a relatively small number of registered visitors, but it is also necessary to take into account a significant number of arrivals of the domicile population, who, due to unfavourable economic circumstances in the past, live abroad and often visit Široki Brijeg (at least three to four times a year), which is not recorded in statistics due to the lack of a system that would register arrivals in private accommodation facilities such as apartments and holiday homes.

A more significant analysis of inbound and outbound tourism factors for the development of tourism in Široki Brijeg at the regional, national and international levels can only be done through surveys. In 2025, a survey entitled "Research on the Tourist Potential of the town of Široki Brijeg" was conducted, covering 155 respondents over the age of 18 residing in the Široki Brijeg area. The survey included 68.4% female and 31.6% male participants. Regarding age distribution, the largest group of respondents (63.23%) were aged 26 to 45, followed by 29.03% aged 46 to 65, 6.45% aged 18 to 25, and 1.29% over 65 years of age.

Regarding the attractive, significant tourist and cultural offers in the city of Široki Brijeg and the West Herzegovina Canton, the largest number of respondents is dissatisfied. 55.5% of respondents are dissatisfied with the significant tourist and cultural offer of Široki Brijeg, and 42.6% of respondents are dissatisfied with the significant tourist and cultural offer of the West Herzegovina Canton.

**Tab. 2.** Tourist attractions according to significance and attractiveness in Široki Brijeg

<b>Tourist attractions of Široki Brijeg</b>	<b>Number of respondents</b>	<b>%</b>
1. Franciscan complex (Franciscan Church, monastery and museum/gallery)	124	80
2. Natural heritage (the Lištica and Ugrovača Canyons, spatial unit Borak, caves...)	108	69,7
3. Gastronomic events (Street Food Fest Široki Brijeg)	65	41,9
4. Cultural events (West Herzegovina Fest, advents, concerts...)	49	31,6
5. Cultural and historical heritage (Basilica in Mokro, stećak tombstones, Kočerin tablet, hillforts, mills...)	36	23,2
6. Sports events (football, basketball, futsal, karate competitions)	26	16,8

Source: Survey questionnaire "Research on the tourist potential of the town of Široki Brijeg, Authors

Based on the data obtained regarding the town's tourist attractions in terms of significance and attractiveness, respondents consider religious tourist attractions to be the most important, with 80%. Natural tourist attractions follow with 69.7%, while a surprisingly high number of respondents (41.9%) consider Gastronomic events to be significant. Cultural and cultural-historical attractions are also considered important, whereas Sports tourist attractions are perceived as less attractive (Tab. 2). Specifically, the most attractive tourist sites are the Franciscan complex, including the church, monastery, and Franciscan gallery, as well as the Lištica River canyon with the Borak spring, Lončar's mills, cascading gardens, Borak Lake and cave, the old stone bridge, and Kruševac fort. Street Food Široki Brijeg is a gastronomic event that has achieved great success in tourism at the local and regional level according to the number of visitors, which is also confirmed by scientific survey research.

In terms of transport accessibility, the largest number of respondents, i.e. 42.6%, expressed dissatisfaction with the transport connections within the West Herzegovina Canton, while the transport connections with the tourist-attractive destinations of the South Croatian coast of neighbouring Croatia were assessed as satisfactory by 47.1% of respondents.

The analysis of outbound tourist-attraction factors based on a case study of owners of second homes in the Blidinje NP confirms that the residents of Široki Brijeg have the largest share in ownership of these facilities, which maintains the historical connection of the Široki Brijeg area with this destination. Blidinje NP has attracted the inhabitants of low Herzegovina for centuries due to its natural resources, in the past for livestock farming, and today for rest and recreation in an attractive natural landscape. Accordingly, Široki Brijeg, as an economically developed centre, represents an important outbound tourist centre at the regional, national and international levels. This conclusion is confirmed by the results of the survey in which respondents could select several locations that they frequently visit.

Based on the survey data, 76.77% of respondents frequently visit the Croatian coast in neighboring Croatia, which is easily accessible and considered an attractive tourist destination. Blidinje NP represents a major destination frequently visited by the residents of Široki Brijeg, with a share of 71.6% based on survey data. Over the years, residents of low Herzegovina have moved to the highland areas of Herzegovina, however, the reasons for these migrations or circulations have changed in modern times. The religious and tourist centre of Međugorje has been attracting a large number of domestic and foreign visitors for many years, and for the people of Široki Brijeg, it represents the favourite and closest attractive tourist destination. It is a place of peace, prayer, pilgrimage and community.

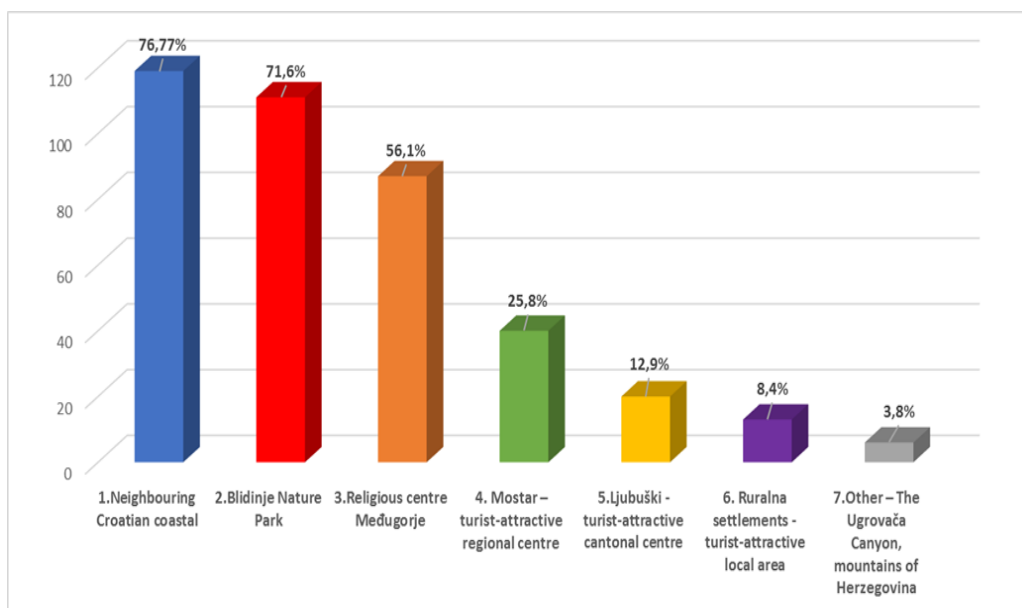
According to the survey, 56.1% of respondents visit Međugorje. Statistical data on tourist visits to Međugorje (Čitluk) for 2024 record a total of 142,000 tourist overnight stays, of which 136,407 were by foreign visitors. In addition, 58,720 tourist arrivals were registered, including 55,575 foreign visitors<sup>7</sup>. As the nearest regional centre, Mostar, in addition to its natural beauty, offers a rich cultural, sports, and artistic program of regional and national significance. It is visited by 25.8% of respondents. In 2024, Mostar recorded 158,885 tourist overnight stays out of a total of 638,478

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<sup>7</sup> Data on tourist flows in the municipality of Čitluk (Međugorje) obtained from the Federal Institute of Statistics, Sarajevo, Federation of BH

overnight stays registered in the Herzegovina-Neretva Canton (HNC), and 111,939 tourist arrivals out of a total of 299,372 arrivals at the canton level<sup>8</sup>.

Ljubuški stands out as the most developed and most attractive tourist area in the West Herzegovina Canton, thanks to valorised tourist attractions such as the Kravice Waterfalls, the Čeveljuša, Koćuša and Bililo swimming areas, the Humac Monastery and Museum, and the Old Town and Ljubuša Fortress. Based on the survey, it is visited by 12.9% of respondents. Statistical data show an increase in the number of registered overnight stays in the town from 8,797 in 2019 to 11,144 in 2024, while the number of tourist arrivals in the same period increased from 5,965 (2019) to 8,003 (2024)<sup>9</sup>. A large number of residents of Široki Brijeg frequently visit their partially or completely abandoned rural settlements, with a share of 8.4% of respondents. These residents own older or renovated family homes or cottages, which they visit for vacation, recreation, barbecues, family gatherings, planting crops, and spending free time in a naturally peaceful environment (returning to their roots).



**Fig. 5.** Tourist visits by the residents of Široki Brijeg to attractive tourist destinations in the region and neighbouring Croatia

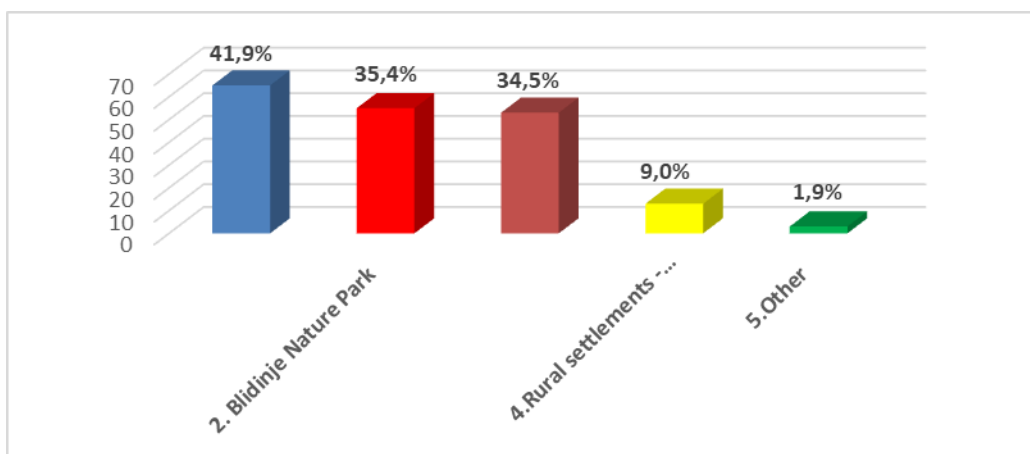
Source: Survey questionnaire "Research on the tourist potential of the town of Široki Brijeg", Authors

<sup>8</sup> Data on tourist flows in Mostar obtained from Federal Institute of Statistics, Sarajevo, Federation of BH

<sup>9</sup> Data on tourist flows in the town of Ljubuški obtained from the Federal Institute of Statistics, Sarajevo, Federation of BH

Based on the data from the survey, it can be concluded that a relatively large number of 125 respondents, or 80.8% of respondents, visit or own a second home. It can be noted, due to the possibility of multiple answers, that they own or visit second homes in multiple locations.

Second home owners combine the best of what is offered, in the summer period the Croatian Coast, and in the winter period the Blidinje NP. However, 65 respondents, 41.9%, do not own or visit a second home (Figure 6). The largest number of second home owners owns a holiday second home in the Blidinje NP, which confirms the earlier research and confirms the outbound tourist importance of Široki Brijeg.



**Fig. 6.** Quantitative data on ownership of second homes in regionally attractive tourist destinations and neighbouring Croatia

Source: Survey questionnaire "Research on the tourist potential of the town of Široki Brijeg, Authors

Based on the collected data and survey results, we can conclude that the town of Široki Brijeg has significant cultural and historical, natural and sports tourist attractions, but they are not adequately valorised in terms of tourism. Religious, cultural, and natural attractions have the greatest tourism significance. Široki Brijeg, located in close proximity to attractive tourist destinations such as the Croatian coast, Blidinje NP, Mostar, Međugorje, and Ljubuški, which record a high number of registered and foreign visitors, has the potential to take its place within regional tourism flows through the development of its tourism offer and high-quality valorisation. Due to the absence of a tourist board, an underdeveloped tourist offer, and the lack of strategic valorisation in line with the concept of sustainable development, as well as competition from more developed nearby tourist destinations, Široki Brijeg currently represents a primarily outbound tourism area at the international and regional levels.

## CONCLUSION

Through the study of tourism potential and valorisation in the Široki Brijeg area, the question arises as to whether this area represents an inbound or outbound tourism region. The hypothesis, or the hypothetical research question with which this study began, has been partially confirmed. Široki Brijeg possesses significant cultural and historical and natural heritage, as well as attractive cultural, gastronomic, and sports events, which is also confirmed by a survey of the local population. The analysis of statistical data on tourism trends in the Široki Brijeg area in the period from 1974 to 2024 indicates a weaker development of tourism, meaning that it does not represent an inbound tourist area, thus completely disproving the initial hypothesis. For more intensive tourism valorisation and tourism development, it is necessary to improve the city's infrastructure and transport accessibility, develop and complement the tourist offer, promote and invest in significant events and projects such as Street Food Fest and West Herzegovina Fest by establishing a tourist board.

Široki Brijeg is located near attractive regional tourist destinations: Ljubuški (tourist centre of the WHC), Međugorje (Čitluk), a religious tourist centre of international importance, and Mostar (tourist centre of the HNC and regional centre of Herzegovina). The frequency of visits to the above destinations is confirmed through a survey of the local population. Given the presence of these significant tourist destinations in the vicinity, Široki Brijeg has the potential to capitalize on existing tourist flows and encourage visitors to include this destination in their travels. For successful inclusion in the regional tourist flows of Herzegovina, tourism valorisation, investment and development of the tourist offer, establishment of a tourist board, and protection of valuable natural and cultural heritage and tourism development in accordance with the concept of sustainable development are necessary.

In addition to the aforementioned regional tourist centres, Široki Brijeg is located near the Blidinje NP (a tourist centre of national importance) and the Croatian Coast (a tourist centre of international importance), and the frequency of visits is additionally confirmed by a survey of the local population. Research on the structural characteristics of second homes ownership in Blidinje NP indicates that the majority of owners are residents of Široki Brijeg, particularly in areas close to ski resorts and surrounding settlements, which were historically inhabited by seasonal pastoral communities. Traditional migrations from the area of low Herzegovina to the area of highland Herzegovina are still present in the modern era, but the reasons for the migration are significantly different. As the most economically developed cantonal centre, Široki Brijeg plays the role of a significant international and regional outbound tourism area, thus partially confirming the initial hypothesis.

## REFERENCES

1. Bešlagić, Š., 1971: *Stećci – kataloško-topografski pregled*, Sarajevo, 305-310.
2. Čolak, I., Ćavar, T., Ćosić, Z., Dugandžić, I., Karačić, M., fra Karačić, V., Kožul, P., Kvesić, M., fra Marić, A., Zeljko, A., Zovko, T., 2008: *Široki Brijeg (Monografija)*, Široko Brijeg
3. Ćavar, I., 2018: *Strukturna obilježja sekundarnog stanovanja u PP Blidinje*, Acta Geographica Croatica, 43/44 (2016/2017), Zagreb, 59-84.
4. Dugandžić, I., 2004: *Širokobriješka baština*, Široki Brijeg.
5. Dugandžić, I., 2006: O nastanku grada Širokog Brijega, u: *Sto godina nove crkve na Širokom Brijegu 1905.-2005.*, znanstveno-stručni skup, (ur. Čolak, I.), Široki Brijeg, 193-220.
6. Galić, J., 2012: *Stanovništvo i naselja općine Široki Brijeg od 1948. do 2011. godine*, Široki Brijeg
7. Glavaš, T., 2006: Sakralne građevine u širokobriješkom kraju od ranog kršćanstva do kraja srednjeg vijeka (IV.-XV. st.), u: *Sto godina nove crkve na Širokom Brijegu 1905.-2005.*, znanstveno-stručni skup, (ur. Čolak, I.), Široki Brijeg, 23-47.
8. Jolić, R., 2015: Povijest polja, u: *Međunarodni znanstveni simpozij Blidinje 2015*, zbornik radova (ur. Čolak, I.), Mostar 2015., 187-216.
9. Jurilj, I. i sur. (Ured Vlade Županije Zapadnohercegovačke za europske integracije), 2021: *Strategija razvoja Županije Zapadnohercegovačke za razdoblje 2021-2027*, Široki Brijeg.
10. Karačić (Fra), V., 2016: *U svratištu muza*, Široki Brijeg.
11. Kunst, I., 2019: *Strategija razvitka turizma Županije Zapadnohercegovačke*, Zagreb.
12. Lundmark, L., Marjavaara, R., 2005: Razmještaj kuća za odmor u švedskom planinskom području, *Turizam* 53 (1), 3-16.
13. Marić (Fra), A., Spajić, I., 2006: Fratarske kuće na Čerigaju, u: *Sto godina nove crkve na Širokom Brijegu 1905.-2005.*, znanstveno-stručni skup, (ur. Čolak, I.), Široki Brijeg, 437-454.
14. Mikulić, G., 2008: *Priručnik za edukaciju i polaganje stručnog ispita za turističke vodiče u FBiH, poseban dio – Županija Zapadnohercegovačka*, Ljubuški.
15. Müller, D. K. 2004: Second Homes in Sweden: Patterns and Issues, in: *Tourism mobility and second homes: between elite landscape and common ground* (eds. Hall C. M., Müller D. K), Channel View Publications, Clevedon, Buffalo, Toronto, 244-258.
16. Popović, J., 2008: *Hercegovački stočari na Poljima i okolnim planinama*, Tomislavgrad.

17. Putica Džajić, J., 2024: *Tipologija ruralnih naselja Županije zapadnohercegovačke*, Mostar/Široki Brijeg.
18. Rotim, K., 1994: *Široki Brijeg*, Široki Brijeg.
19. Zovko, T., 2006: Samostanska graditeljska cjelina na Širokom Brijegu, u: *Sto godina nove crkve na Širokom Brijegu 1905.-2005.*, znanstveno-stručni skup, (ur. Čolak, I.), Široki Brijeg, 381-400.
20. Zovko, B., Bošnjak, Lj., Bošnjak, M., Brekalo, K., Čolak, I., Češkić, P., Čužić, A., Čužić, T., Draškić, V., Dugandžić, I., Đolo, B., Galić, B., Gugić, M., Ivanković, V., Karačić, S., Karačić, Ž., Knezović, M., Kordić, M., Kožul, P., Kraljević, A., Mandić, Z., Markić, P., Martinović, D., Marušić, I., Naletilić, P., Pavković, D., Rotim, I., Sesar, M., Soldo, B., Zeljko, V., i Zovko, T., 2017: *Prostorni plan grada Širokog Brijega za period od 2012. do 2032. godine (prijedlog)*, Široki Brijeg.Sources:
21. Internal data of the public company Electric Power Company of the HZHB (JP "EP HZ HB") d.d. Mostar, Southern supply area, Mostar Plant, Doljani Work Unit
22. Population Census, Households, and Dwellings in Bosnia and Herzegovina 2013: Book 1 – Population by Age in Five-Year Groups, Sex, and Type of Settlement, by Settlements, Federal Institute of Statistics, Sarajevo.
23. Federal Institute of Statistics, Sarajevo, Federation of BiH (Dolasci i noćenja u Federaciji Bosne i Hercegovine od 2013. do 2024.; Statistički godišnjak Republike BiH 1992, Sarajevo 1994.)
24. Internet: <https://www.jabuka.tv/cetiri-tvrtke-iz-hercegovine-u-top-10-najvecih-bh-izvoznika/> (7.siječnja 2024)
25. Survey questionnaire "Research on the tourist potential of the town of Široki Brijeg, Authors Internet: <https://docs.google.com/forms/d/1-erB57ieTLhlg8g7sVPiVSbcZAgvFauW-F15c8MoqGo/edit> (od 27.5.2025)

## UNDERSTANDING EMPLOYEE NEEDS – THE PATH TO LOYALTY

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**DOI:** 10.35666/25662880.2025.11.32

**UDC:** 640.4:331.5

**Abstract:** Understanding and addressing employee needs is fundamental to fostering loyalty within organizations, particularly in the hospitality industry, where human capital is the cornerstone of service excellence. The research analyzes the needs of hospitality workers that are crucial for them to remain loyal to their employers. Through additional comments from respondents, their perspective on the current state of the profession will also be presented. The research was conducted online and included 612 hospitality workers from various positions. The findings of the study can provide clear guidelines for hospitality businesses on how to shape human resource strategies to attract new employees and retain existing ones. Focusing on the hospitality sector, the study investigates the unique challenges and expectations employees face, such as irregular working hours, high customer interaction. It highlights the importance of tailored strategies to meet these needs, ranging from effective communication and leadership to opportunities for personal and professional growth. This paper outlines best practices in employee engagement and retention through theoretical and data analysis, emphasizing that a satisfied and motivated workforce is essential for organizational success. The findings offer valuable insights for managers and industry stakeholders, presenting actionable recommendations for fostering a supportive work environment that prioritizes employee well-being while aligning with organizational goals.

**Keywords:** Employee Needs, Employee Loyalty, Hospitality Industry, Job Satisfaction, Organizational Commitment, Workforce Motivation, Leadership in Hospitality

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## INTRODUCTION

Understanding and addressing employee needs is a cornerstone of effective organizational management. Employees are the backbone of any business, and their satisfaction, motivation, and engagement significantly impact organizational performance and success. Herzberg's Two-Factor Theory (2003) underscores the importance of both hygiene factors, such as fair compensation and safe working conditions, and motivators, such as recognition and opportunities for growth, in fostering employee satisfaction.

Similarly, Maslow's Hierarchy of Needs (1943) provides a foundational framework for understanding human motivation, emphasizing that unmet basic needs can hinder higher-level engagement and loyalty. In the hospitality industry, the dynamic and customer-focused nature of the work amplifies the importance of meeting employee needs. High levels of emotional labor, irregular hours, and cross-cultural team interactions are common challenges faced by hospitality workers (Koc, 2019). Addressing these unique demands is essential for cultivating a motivated workforce that delivers consistent service excellence. Deci and Ryan's Self-Determination Theory (2000) highlights the importance of autonomy, competence, and relatedness in enhancing employee engagement and job satisfaction, which are critical in the hospitality context.

Research suggests a direct correlation between meeting employee needs and fostering organizational loyalty. Harter, Schmidt, and Hayes (2002) found that employee engagement is a significant predictor of business outcomes, including productivity, customer satisfaction, and turnover rates. Furthermore, Chiang and Birtch (2010) emphasize the role of culturally sensitive management practices in addressing diverse employee expectations in global hospitality organizations.

This paper focuses on a qualitative analysis of employee perspectives in the hospitality industry. Based on the responses of 612 employees to the open-ended questions. The study identifies relevant indicators that can serve as guidelines for hospitality managers engaged in employer branding and for those who strategically approach human resource policies. The findings provide practical implications for creating supportive organizational environments that foster loyalty and long-term commitment, and on how to provide actionable insights for hospitality managers to create supportive and engaging work environments that align employee well-being with organizational success.

## LITERATURE ANALYSIS

### Defining Employee Needs

Defining the needs of hospitality employees is a critical step in understanding how to enhance job satisfaction, performance, and long-term loyalty in the industry. Research has shown that employee needs in hospitality are influenced by a combination of organizational practices, cultural values, and individual expectations. Several studies explore these dimensions to provide a comprehensive understanding of hospitality employees' needs (Dogonyaro, 2021).

The impact of cultural differences on the needs of hospitality employees, focusing on how these needs vary across different regions and cultural contexts. The study emphasizes that employee needs in the hospitality industry are not universal, but rather shaped by cultural values, traditions, and local expectations.

For instance, employees in cultures with a collectivist orientation may prioritize job security, group harmony, and organizational stability, while those in individualistic cultures may value career development, autonomy, and recognition. Understanding these cultural nuances is crucial for international hospitality businesses seeking to meet the diverse needs of their global workforce (Chen & Law, 2016).

Hospitality organizations must address the basic needs of their employees, such as fair compensation, job security, and career development opportunities, to foster engagement. Additionally, providing recognition, opportunities for personal growth, and fostering a positive work environment are key to ensuring that employees feel valued and supported. By identifying and addressing these needs, hospitality organizations can improve employee engagement, which in turn enhances job satisfaction and long-term loyalty (Sharma & Patil, 2018).

The importance of organizational support in fulfilling employee needs in the hospitality industry. This support encompasses a wide range of factors, including leadership, training and development opportunities, work-life balance, and workplace culture. When employees perceive that their needs are being met by their employers, such as through providing clear career advancement opportunities or a supportive work environment, they are more likely to develop a sense of loyalty to the organization. Lee suggests that hotels and other hospitality businesses should focus on creating an environment where employees feel supported, respected, and motivated to stay with the organization long-term (Lee, 2011).

## **The Role of Job Satisfaction in Employee Loyalty**

Employees in the hospitality sector often face high turnover rates due to the demanding nature of the job, long working hours, and seasonal fluctuations. Dogonyaro argues that organizations must go beyond basic needs such as salary and job security and focus on fostering a sense of purpose, career progression, and emotional well-being (Dogonyaro, 2021).

Similar to the findings of Sharma and Patil (2018), Dogonyaro emphasizes that employees need clear paths for career advancement. Hospitality organizations that invest in training and development, and offer opportunities for promotion, tend to see higher levels of employee satisfaction and retention. By providing employees with a sense of growth and purpose, businesses can align their goals with employees' career aspirations, enhancing loyalty and reducing turnover.

Barreto and Mayya (2024) emphasize that job satisfaction is a critical factor influencing employee performance in the hospitality industry. When employees feel satisfied with their jobs, they tend to be more engaged and motivated to perform at their best. The study highlights that job satisfaction arises from various intrinsic and extrinsic needs, including fair compensation, career development opportunities, work-life balance, and recognition. Satisfied employees are more likely to put in discretionary effort, which not only boosts their performance but also strengthens their loyalty to the organization.

Ulndag et al. (2011) highlight the pivotal role of job satisfaction in influencing employees' turnover intentions. Satisfied employees are more likely to remain loyal to their organization. Job satisfaction in the hospitality industry often stems from factors such as workplace environment, job security, recognition, and fair compensation. Addressing these needs can reduce turnover intentions, fostering long-term loyalty.

Jung and Yoon (2013) investigate the relationship between job satisfaction, organizational commitment, and job performance in the hotel industry. The study reveals that job satisfaction is a significant predictor of organizational commitment, which in turn influences job performance. Employees who are satisfied with their roles and work environment are more likely to develop a strong sense of commitment to the organization, which increases their loyalty. In hospitality settings, where customer service is key, committed employees are often more motivated to go above and beyond, leading to improved guest satisfaction and better business outcomes.

Naveen and Parashar (2021) provide a comprehensive literature review on employee satisfaction and loyalty in the hospitality industry. The review highlights various factors contributing to job satisfaction, including work environment, management practices, compensation, and recognition. The authors assert that job satisfaction directly influences employee loyalty, and when employees are satisfied with their jobs, they exhibit greater organizational commitment, job performance, and customer satisfaction.

The literature suggests that satisfied employees are more likely to remain with their organization for longer periods, reducing the costs associated with recruitment and training. Moreover, satisfied employees often share their positive experiences with others, becoming brand advocates and contributing to the organization's reputation, which is especially important in the hospitality industry where word-of-mouth and customer service are paramount.

A common thread across these studies is the notion that job satisfaction acts as a mediator between various organizational practices and employee loyalty. The more satisfied employees are with their work environment, relationships with managers, compensation packages, and career growth opportunities, the more likely they are to exhibit organizational loyalty. Naveen and Parashar (2021) highlight that the positive effects of job satisfaction on loyalty are particularly strong in service industries like hospitality, where employees' interactions with customers directly impact the organization's reputation and success.

Opportunities for professional development and career advancement are vital. Organizations that invest in training and growth prospects tend to retain skilled employees, which positively impacts performance (Ghanni et al., 2022).

### **Workplace Well-being: A Key to Long-Term Loyalty**

The direct relationship between workplace hospitality well-being and employee retention in the hotel industry. Their study highlights that well-being programs that focus on both the physical and psychological aspects of employees' health can significantly impact retention rates. When employees feel valued, supported, and cared for, their job satisfaction increases, which leads to higher levels of loyalty and commitment to the organization. The study shows that providing resources for mental health, promoting work-life balance, and offering employee wellness programs can reduce burnout and stress, leading to lower turnover and higher employee morale. This is particularly critical in the hospitality industry, where job

demands are high, and employee satisfaction is closely linked to customer experience (Koh & Lee 2022).

Nijhuis and van der Heijden (2012) explore the broader role of well-being in the hospitality industry and its connection to long-term employee loyalty. Their research suggests that organizations that invest in the well-being of their employees create a foundation for sustained loyalty. They emphasize that well-being encompasses more than just physical health—it also involves emotional support, job satisfaction, social relationships, and career development opportunities. When employees' overall well-being is supported, they are more likely to remain with the organization, demonstrating stronger loyalty and a commitment to the company's success. By fostering a supportive and positive work environment, hospitality businesses can cultivate a loyal workforce that is motivated to stay with the company and contribute to its long-term goals.

The role of subjective well-being (SWB) in understanding employee needs and fostering loyalty. Subjective well-being, which refers to employees' self-perceived happiness and satisfaction with life, is strongly connected to how employees feel about their work environment and organizational support. When employees experience high levels of well-being, it indicates that their personal and professional needs are being met, which enhances their job satisfaction. This sense of well-being is crucial for organizational commitment and loyalty. Employees who feel fulfilled and supported in their roles are more likely to remain loyal to the organization and contribute positively to its success (Xu et al., 2014).

Chen and Law (2016) highlight the significant role of employee well-being in enhancing both job satisfaction and customer satisfaction in the hospitality industry. The study demonstrates that when employees experience high levels of well-being, they are more likely to be engaged, perform well in their roles, and deliver superior customer service. This, in turn, creates a positive feedback loop: satisfied employees contribute to positive customer experiences, which further enhances job satisfaction and loyalty. By investing in employee well-being, hospitality organizations not only improve employee retention but also improve the quality of service offered to guests, ultimately benefiting the organization as a whole.

Teixeira and Silva (2021) examine the role of organizational support in enhancing employee well-being in the hospitality sector. The study highlights that organizations that provide comprehensive support systems—such as mental health resources, career development programs, and effective management practices—

create an environment where employees feel supported and appreciated. This sense of support is directly linked to higher levels of employee loyalty.

The authors argue that employees who perceive their organization as caring for their well-being are more likely to remain committed, leading to improved retention rates and reduced turnover. The study stresses the importance of leadership and management styles that prioritize the well-being of employees, recognizing that these factors significantly influence employee attitudes and loyalty.

Taken together, these studies highlight the importance of a holistic approach to employee well-being, which includes physical, mental, and emotional aspects. Hospitality organizations that invest in a comprehensive well-being strategy—ranging from offering wellness programs, promoting healthy work-life balance, fostering positive relationships between employees and management, and providing career development opportunities—are more likely to see improvements in both employee satisfaction and organizational loyalty.

## **METHODOLOGY**

A survey conducted via Google Forms included 612 respondents to analyze employee loyalty in the hospitality industry. The collected data was qualitatively analyzed and presented in tables. The dataset includes demographic information (gender, age, marital status, income), employment details (position, years of experience), and responses to various questions regarding job satisfaction, workplace conditions, and loyalty factors, grouped under several themes like respect, material benefits, management.

## **DISCUSSION**

This report analyzes survey responses related to employee loyalty factors, categorizing them into material and non-material aspects. Findings are connected to existing literature to provide a comprehensive understanding of workplace loyalty drivers.

The demographics part of the survey includes the following key information from 612 respondents:

**Tab. 1.** Demographic data

<b>Gender</b>	Predominantly male (69,9%), and female respondents (30,1%).
<b>Positions</b>	Mainly waiters (40%), cooks (41%), and their assistants (19%).
<b>Age</b>	Ranges from 21–25 to over 35 years old, with most respondents being from the group of „Over 35 years old“ making over 45%, following with „From 31-35 years old“ making 25%, and category from „From 26-30 years old“ making 20%.
<b>Work experience</b>	Ranges from 4–7 years to over 12 years, with most respondents being from the group of „Over 12 years of experience“ making over 52%, following with „From 8-12 years of experience“ making 21%, and category from „From 4-7 years of experience“ making 15%.
<b>Income</b>	Most respondents, making 79% of them, reported salaries are above €500, with some over €1000 aprox., (21%).
<b>Marriage status</b>	Most of the respondents make the group of „Married“, 41%, following with the group of „Not married“, 36%.

The factors that help to understand employee needs have been split into two aspects „Material“ an „Non-material“ aspects. This part of the survey includes the following key information from 612 respondents.

**Tab. 2.** Key factors submitted by the respondents

<b>FACTORS</b>	
<b>Material aspects</b>	<b>Non-material aspects</b>
<b>Monthly income:</b> Most respondents earn over 1000€ (19,6%), then the respondents that earn between 501€–600€ (19,4%), followed by those earning between 601€–800€ (18,8%).	<b>Respect among employees:</b> This emerged as a highly valued aspect in open-ended responses, making 80% of the answers.
<b>Paid overtime:</b> Responses indicate a split, with a significant number stating their overtime is unpaid which makes (57,5%) of the respondents.	<b>Motivating managers:</b> Many respondents, making over 50% of the respondents, value managers who motivate and provide support to hardworking employees.
<b>Competitive salary:</b> A significant percentage of respondents identified salary as a key loyalty determinant. Predominantly the respondents stated that (51,5%) do not have a market-aligned compensation.	<b>Managerial support for hard-working employees:</b> Based on the results factors such as recognition and encouragement play a vital role in employee engagement as stated by over 48% of the respondents.

<p><b>Compliance with legal work hours (work-life balance):</b> A majority of respondents, which makes up (57,7%) confirmed compliance with legal vacation lengths and work hours.</p>	<p><b>Honesty of the employer:</b> Strong preference for fair and transparent management practices have been stated as a key factor by over 65% of the respondents.</p>
<p><b>Availability of meals at work:</b> Availability of meals at work is widely provided (almost 500 responses, (81,7%), in favor).</p>	<p><b>Organizational culture:</b> Recurring themes include respect, transparency, and opportunities for professional growth for over 78% of the respondents.</p>

### Correlation Between Survey Findings and Existing Literature

**In terms of material aspects,** a significant number of respondents (51.5%) indicated that they do not receive a market-aligned salary, and most respondents earn between 501€–1000€. This supports Herzberg’s Two-Factor Theory (2003), which categorizes salary and financial benefits as hygiene factors, essential for preventing dissatisfaction but insufficient on their own to drive motivation. Similarly, the survey revealed that 57.5% of respondents do not receive paid overtime, which further highlights dissatisfaction related to compensation practices. Compliance with legal work hours and vacation, confirmed by 57.7% of respondents, reflects positively on work-life balance. This corresponds with findings by Koh and Lee (2022), who established a link between employee well-being initiatives and increased loyalty. Additionally, the availability of meals at work, reported by 81.7% of respondents, contributes to workplace support and overall satisfaction, further supporting Koh and Lee’s conclusions regarding the positive effects of employee-centered benefits.

**Non-material aspects** also emerged as highly significant. Respect among colleagues was identified as a key theme in 80% of open-ended responses, reflecting the importance of interpersonal relations and mutual regard in the workplace. This finding aligns with the research of Barreto and Mayya (2024), who emphasized the role of respectful and fair treatment in enhancing job satisfaction and employee retention. Managerial behavior also featured prominently, with over half of respondents valuing managers who provide motivation and support to hardworking employees.

This resonates with the research from Deci and Ryan’s (2000) Self-Determination Theory, which emphasizes the importance of intrinsic motivation, recognition, and supportive leadership in fostering engagement. Managerial support, specifically in

the form of recognition and encouragement, was cited by 48% of participants as a crucial factor in engagement, reinforcing Deci and Ryan’s arguments.

Additionally, honesty and transparency from employers were highlighted by more than 65% of respondents, indicating a strong preference for ethical and trustworthy management—a perspective supported by Barreto and Mayya, who identified fair leadership practices as central to employee loyalty. Finally, the importance of a healthy organizational culture marked by respect, transparency, and professional growth—was noted by over 78% of respondents. This finding closely aligns with Koh and Lee’s (2022) research, which underscores the impact of organizational culture on employee satisfaction and retention.

Overall, the survey data provide compelling evidence that both material benefits and non-material conditions significantly influence employee satisfaction and retention. These results are consistent with established theoretical frameworks and recent empirical studies, demonstrating that an integrated approach to employee management—one that balances compensation with respect, support, and ethical leadership—can effectively foster loyalty and engagement in the workplace.

### **Analysis of Additional Comments**

Out of a total of 612 respondents, **82 participants (13.4%)** provided additional comments in the optional field. The qualitative analysis of these responses reveals several recurring themes:

- **Fair Treatment and Respect** – the most frequently mentioned factor, where employees emphasized the need to feel valued and appreciated.
- **Work/Life Balance** – respondents highlighted the importance of legally regulated working hours and better shift organization.
- **Fair Compensation and Benefits** – regular pay, overtime compensation, and entitlement to vacation and social security were often mentioned as crucial.
- **Trustworthy and Ethical Management** – several comments pointed to the importance of honest, fair, and responsible leadership.
- **Job Security and Stability** – many employees noted that long-term job stability plays a significant role in building loyalty.
- **Organizational Culture and Working Conditions** – some comments reflected dissatisfaction with poor management practices and stressed the need for solidarity, teamwork, and supportive work environments.

Based on the additional comments, approximately 13% of respondents expressed their views on factors that influence loyalty. The findings suggest that employees in the hospitality sector associate loyalty primarily with respect, lawful working conditions, fair pay, and ethical management practices. These insights provide valuable guidelines for hospitality managers engaged in employer branding and for those strategically developing human resource policies.

## CONCLUSION

Employee loyalty is a fundamental factor in the success of the hospitality industry, as it directly impacts both job performance and customer satisfaction. This analysis highlights the need for a balanced approach that addresses both material and non-material aspects to foster long-term loyalty among employees. The survey findings reveal that loyalty is driven by a combination of fair treatment, competitive compensation, and supportive workplace practices. Material factors such as competitive salaries, paid overtime, and adherence to legal benefits like vacation entitlements play a crucial role in maintaining employee satisfaction. Many respondents emphasized the significance of receiving fair pay and having access to workplace benefits, such as meals and compliance with legal working hours. Addressing gaps, such as unpaid overtime, can further enhance employee retention and satisfaction.

Equally important are the non-material aspects, including respect, fairness, and supportive management. Employees value being treated with respect and appreciated for their contributions. Transparent and ethical management practices, as well as motivating and encouraging leadership, were identified as critical drivers of loyalty. Respondents also highlighted the importance of achieving a balance between work and personal life, along with the need for opportunities for career growth and professional development.

To enhance employee loyalty in the hospitality industry, organizations must prioritize both material and non-material factors. Providing competitive compensation and ensuring compliance with labor laws are essential, while fostering a culture of respect, teamwork, and fairness can further strengthen employee commitment. Investing in training, career progression, and open communication will also create a supportive and engaging work environment. In conclusion, balancing material benefits with a culture of respect and ethical management is key to building a loyal and engaged workforce. By addressing these factors holistically, hospitality businesses can ensure higher employee retention, improved job performance, and ultimately, greater customer satisfaction.

## LITERATURE REVIEW

1. Barreto, N., & Mayya, S. (2024). The Role of Job Satisfaction in Enhancing Employee Performance and Customer Experience in the Goan Hospitality Industry: A Case Study. *International Journal of Case Studies in Business, IT and Education (IJCSBE)*, 8(1), 310-325.
2. Chen, C. C., & Law, R. (2016). Employee well-being and customer satisfaction: Exploring the role of workplace well-being in the hospitality sector. *International Journal of Contemporary Hospitality Management*, 28(4), 772-791.
3. Chiang, F. F. T., & Birtch, T. A. (2010). Appraising performance across borders: An empirical examination of the purposes and practices of performance appraisal in a multi-country context. *Journal of Management Studies*, 47(7).
4. Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4).
5. Dogonyaro, H. (2021). Employee retention strategy in the hospitality industry (Doctoral dissertation, Walden University).
6. Ghani, B., Zada, M., Memon, K. R., Ullah, R., Khattak, A., Han, H., ... & Araya-Castillo, L. (2022). Challenges and strategies for employee retention in the hospitality industry: A review. *Sustainability*, 14(5), 2885.
7. Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87(2).
8. Herzberg, F. (2003). *One more time: How do you motivate employees?* Harvard Business Review Press.
9. Jung, K. A., & Yoon, H. (2013). The effects of job satisfaction and organizational commitment on job performance in the hotel industry. *International Journal of Hospitality Management*, 34, 50-57.
10. Koc, E. (2019). Cross-cultural differences in hospitality and tourism practices. *Journal of Hospitality Marketing & Management*, 28(4).
11. Koh, W. L., & Lee, C. (2022). Workplace hospitality well-being and its impact on employee retention in the hotel industry. *International Journal of Hospitality Management*, 99.
12. Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4).
13. Naveen, A., & Parashar, M. (2021). Employee satisfaction and loyalty in hospitality industry: A literature review. *Journal of Hospitality and Tourism Management*, 46, 96-102.

14. Nijhuis, F. J., & van der Heijden, B. I. (2012). The role of well-being in the hospitality industry: Building the foundation for long-term loyalty. *Journal of Hospitality and Tourism Research*, 36(2), 176-198.
15. Sharma, N., & Patil, D. (2018). The role of employee job satisfaction in enhancing organizational loyalty: A study in the hospitality industry. *Journal of Human Resources in Hospitality and Tourism*, 17(4), 494-510.
16. Teixeira, M. J., & Silva, J. F. (2021). Organizational support and employee well-being in the hospitality sector: Creating loyalty through effective workplace strategies. *Journal of Hospitality and Tourism Management*, 46, 12-22.
17. Ulndag, O., Khan, S., & Guden, N. (2011). The effects of job satisfaction, organizational commitment, organizational citizenship behavior on turnover intentions. *Hospitality Review*, 29(2), 1.
18. Xu, S., Choi, Y., & Lv, Q. (2014). Subjective well-being, work motivation and organizational commitment of Chinese hotel frontline employees: a moderated mediation study. *Journal of Tourism Research & Hospitality*, 3(2), 1-9.

# THE ROLE OF DESTINATION MANAGEMENT COMPANIES IN THE DEVELOPMENT OF ADVENTURE TOURISM: EVIDENCE FROM SPLIT-DALMATIA COUNTY

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DOI: 10.35666/25662880.2025.11.45

UDC: 338.48-51:339.13(497.5 SDŽ)

**Abstract:** Croatia is recognized as one of the most visited destinations in the Mediterranean and faces the challenge of spatially and temporally unevenly distributed tourist demand. Most of the tourism activity is concentrated in coastal counties, with Split-Dalmatia County among the most visited. In this context, the development of special interest tourism has been identified as a key strategy for reducing seasonality. Destination management companies (DMCs), through specialization and an in-depth understanding of the resource and attraction base, play an increasingly significant role in creating complex, high value-added tourism products. The purpose of this paper is to examine the role of DMCs in Split-Dalmatia County in the development of adventure tourism. An empirical study was conducted to explore the perceptions of DMCs regarding the importance, potential, and challenges of adventure tourism in Split-Dalmatia County.

The findings indicate that most DMCs independently develop and promote adventure-related activities, frequently combining them with other forms of tourism services. However, several limitations were identified, including seasonality, insufficiently developed promotional channels, a lack of specialized guides and limited inter-institutional cooperation. Based on the results, recommendations were proposed to improve the development of adventure tourism in the county. These include extending the offer beyond the main season, introducing multi-day tours, promoting digital innovations, and strengthening safety standards. The study highlights the pivotal role of DMCs not only in organizing and coordinating adventure tourism products but also in fostering collaboration among destination stakeholders, thereby contributing to the sustainable competitiveness of the region.

**Keywords:** sustainable tourism development, destination management companies (DMCs), stakeholder collaboration, adventure tourism, Split-Dalmatia County

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## INTRODUCTION

The Republic of Croatia has been recognized as a prominent tourist destination within the Mediterranean region, continuously attracting increasing interest from international tourists year after year.

In 2024, Croatia recorded a total of 20.246.060 tourist arrivals, of which 85,8% were generated by international tourists, while the remaining 14,2% were attributed to domestic tourists (Croatian Bureau of Statistics, 2025). The imbalance is even more pronounced when considering the number of overnight stays: of the total 93.683.814 overnights recorded in 2024, as many as 90,7% were realized by international tourists, whereas only 9,3% were attributed to domestic tourists.

Although international demand for Croatian tourism is undoubtedly strong, the sector faces the persistent challenge of spatially and temporally uneven distribution of tourist flows. The seven coastal counties of Croatia, which together comprise 43,7% of the country's total land area (Croatia.eu, 2025), account for 86,5% of all tourist arrivals and as much as 94,4% of total overnight stays (Croatian Bureau of Statistics, 2025). This spatial concentration would appear even more pronounced if data were analyzed separately for the narrow coastal strip, given that within each county, tourist activity is heavily concentrated along the coast, while the hinterland remains comparatively less visited.

Split-Dalmatia County represents the second most visited county in Croatia, following Istria County. In 2024, it recorded 18.397.016 overnight stays generated by 3.760.263 tourists (The Tourist Board of Split-Dalmatia County, 2025). Despite these impressive numbers, the monthly distribution of tourist flows reveals a marked seasonality. During the four peak months of 2024 (June to September), 77,2% of total arrivals and 84,6% of total overnight stays were realized, with 50% of arrivals and as much as 58% of overnights occurring in only two months – July and August (The Tourist Board of Split-Dalmatia County, 2025; 2024). These patterns clearly indicate that Split-Dalmatia County continues to experience a high degree of seasonality in tourist demand.

The diversification of the tourism product through the development of special interest forms of tourism represents one of the key instruments for reducing the spatial and temporal concentration of tourist demand and for extending the summer tourist season (Ćorluka et al, 2013). In this context, destination management companies, as specialized intermediaries in tourism possessing in-depth knowledge of the destination's resource and attraction base, play an increasingly important role

in creating and integrating complex tourism products with high added value. Their activities contribute to more effective management of the tourism offer, foster innovation, and enhance the competitiveness of the destination in the global tourism market.

Therefore, the aim of this paper is to examine the role of destination management companies (DMCs) in the development of adventure tourism in Split-Dalmatia County, as a potential factor contributing to the reduction of seasonal concentration of tourist demand and the promotion of sustainable tourism development within the destination.

## **LITERATURE REVIEW**

### **Definition and conceptualization of adventure tourism**

The concept of adventure tourism has undergone significant evolution in recent decades, and its definition remains a subject of debate within the academic community. In earlier theoretical approaches, the central element of the definition was linked to the notion of danger. Meier (1978) emphasized physical danger as a fundamental feature of adventure tourism, while Hall (1992) interpreted danger through the prism of risk that is perceived, but also controlled by the expertise of tour operators. A study by Sand and Gross (2019) analyzed previous definitions and found that risk and uncertainty constitute central themes in the adventure tourism literature (Rantala et al., 2016). The excitement that arises from such experiences is often interpreted as an “artistic commodification of fear” (Cater, 2006), and the core elements identified by Weaver (2001) as risk, physical effort, and specific skills, are still considered relevant today.

In recent approaches, however, there is a broader understanding of the term. The World Tourism Organization (UNWTO, 2014) adopts a definition that differs from traditional approaches, based on the Adventure Travel Association (ATTA) definition. According to ATTA, adventure tourism includes any trip that includes at least two of the three elements: physical activity, stay in the natural environment and cultural immersion. Such determination includes the so-called soft adventures that do not require elements of risk, physical effort or specific skills, such as culinary courses or traditional food tastings in different cultural contexts (ATTA, 2018). Additionally, the newer concept of slow adventure emphasizes deep, authentic, and immersive experiences that do not necessarily involve physical challenge or risk (Jenkins, 2019).

The growing diversity of adventure tourism forms makes it difficult to define it explicitly. Jenkins (2019, p. 4) points out that “the breadth of adventure tourism poses a challenge to a definitive definition”, as new experiences change the perception of adventure. Studies show that modern tourists often value the activity itself more than the element of risk, which indicates a change in market values and expectations.

Despite numerous studies, the concept of adventure tourism remains unclear and complex. Rantala et al. (2018) call for its reconceptualization and more precise definition of its core features, emphasizing that the global growth of supply and demand further complicates its understanding (Rantala et al., 2018; Wang et al., 2019). As a result, the “umbrella term” of adventure tourism has been adopted in academic and professional literature (Rantala et al., 2018), encompassing experiences ranging “from walking through the countryside to flying into space” (Swarbrooke et al., 2003).

One of the most widely accepted definitions, jointly formulated by ATTA and George Washington University (Janowski et al., 2021), defines adventure tourism as any travel that includes at least two of the three elements: interaction with nature, interaction with culture, and/or physical activity. Nevertheless, the classification of activities into soft and hard forms of adventure remains inconsistent and often problematic (UNWTO, 2014). Soft adventures typically involve low or perceived risk, guided activities, and minimal skill requirements (Sand & Gross, 2019), while hard adventures involve high risk, advanced skills, and physical commitment.

The boundaries between these categories, however, are not rigidly defined, as the intensity of the adventure experience depends on several factors: environmental conditions, technical equipment, level of guidance, experience, and psychological characteristics of the participants. Therefore, soft and hard adventure tourism can be understood as a continuum of experience intensity, rather than as strictly separate categories (Janowski et al., 2021).

## **METHODOLOGY**

DMCs play a key role in the development of adventure tourism by connecting local resources, stakeholders and visitors through innovative, sustainable and experiential tourism products. Thanks to their in-depth knowledge of local natural and cultural resources, professionally trained staff and wide network of business contacts, DMCs can design and deliver high-quality services and organize activities that emphasize the authenticity of the destination and responsible use of the environment. By leveraging their negotiating power and developed relationships with local service providers, DMCs ensure a cost-effective, but also highly personalized offer, which is particularly important in the adventure tourism segment, where tourists seek unique, safe and extraordinary experiences (Gjurković & Matošević Radić, 2020).

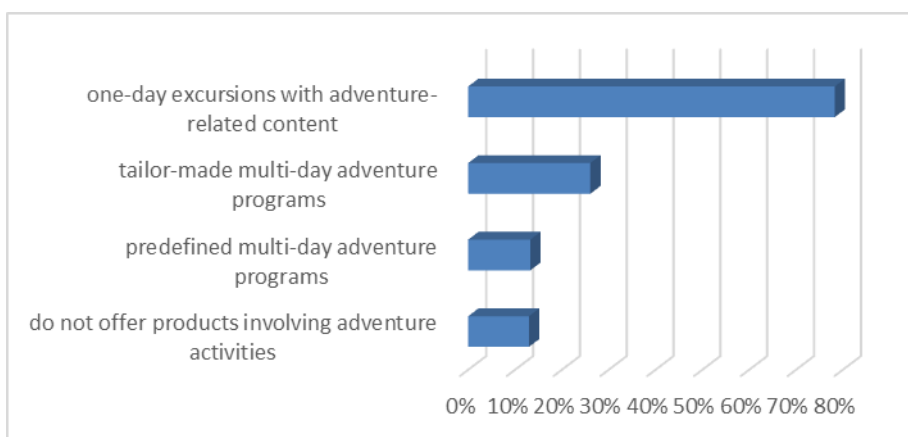
To examine the role of DMCs in the development of adventure tourism in the Split-Dalmatia County (SDC), primary empirical research based on the quantitative data collection method was conducted. The research was conducted in the spring of 2025 using a structured survey intended for representatives of active DMKs in the SDC. The research encompassed DMCs operating in SDC that are officially listed in the agency directory of the Split-Dalmatia County Tourist Board. A structured survey questionnaire was developed for the purposes of the research, consisting of closed and semi-open questions. The questionnaire was designed in three thematic units: general information about DMCs, perception of adventure tourism and role of DMCs in destination development in SDC.

## **RESULTS AND DISCUSSION**

The research results presented in this chapter provide a deeper understanding of the attitudes of destination management companies toward the development of adventure tourism in SDC and constitute a foundation for formulating recommendations aimed at enhancing the future development of adventure tourism in SDC.

In the initial phase of the research, DMCs were asked to assess the relative importance of adventure tourism within their business operations. The findings indicate that 39,1% of respondents reported that adventure tourism accounts for more than half of their overall offer, while 26,1% stated that its share ranges between 20% and 50%. The remaining 34,8% of DMCs indicated that adventure tourism represents less than 20% of their total portfolio.

Regarding the perceived importance of adventure tourism, most respondents (43,5%) rated it as highly important to their business (score 5 on a five-point scale), followed by 17,4% who rated it 4, and 13% who rated it 3. Only a small proportion (4,3%) considered adventure tourism to be of little or no importance. These results suggest that most DMCs in SDC recognize adventure tourism as a strategically significant component of their operations.



**Fig. 1.** Structure of adventure tourism product of DMCs in SDC

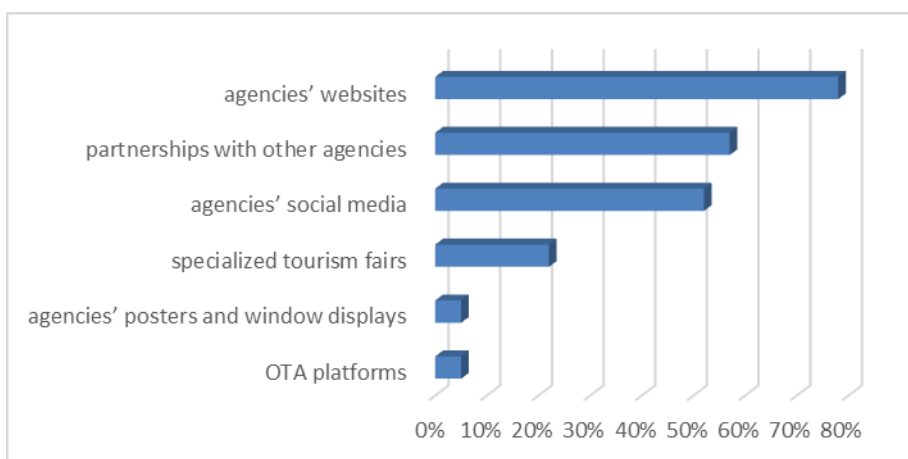
Asked to determine the types of adventure tourism products that are included in their offer as well as the types of adventure activities, as can be seen from the data shown in the above Figure 1 among all DMCs that participated in the study, only 13% reported that they do not offer products involving adventure activities, while 78,3% indicated that they organize one-day excursions with adventure-related content. Furthermore, 26,1% of the agencies offer tailor-made multi-day programs featuring adventure elements, and 13% provide predefined multi-day adventure programs.

In terms of specific activities, DMCs in Split-Dalmatia County most commonly offer rafting (82.6%), kayaking (73.9%), and ziplining (60.9%), followed by quad biking (56.5%) and cycling (26.1%). Activities such as canyoning, paintball, and rock climbing are considerably less represented. This structure indicates a clear orientation toward popular and commercially sustainable forms of adventure tourism, which are most frequently implemented through one-day programs.

The results indicate that DMCs in SDC recognize adventure tourism as an important segment of their business and actively incorporate it into their offerings, most commonly through one-day excursions with adventure-related content. The most frequently offered activities (rafting, kayaking, and ziplining) suggest an orientation toward accessible and commercially sustainable forms of adventure tourism. This structure of supply highlights the key role of DMCs in diversifying the tourism product and fostering sustainable tourism development in SDC.

The following section presents the results related to the frequency of clients' interest in adventure tours. The data indicate that most DMCs estimate that their client's express interest in adventure activities occasionally (30.4%) or frequently (26.1%), while a smaller proportion report that their clients always seek such experiences (21.7%). On the other hand, 17.4% of the DMCs state that interest is expressed rarely, and only 4.3% report that it is never expressed.

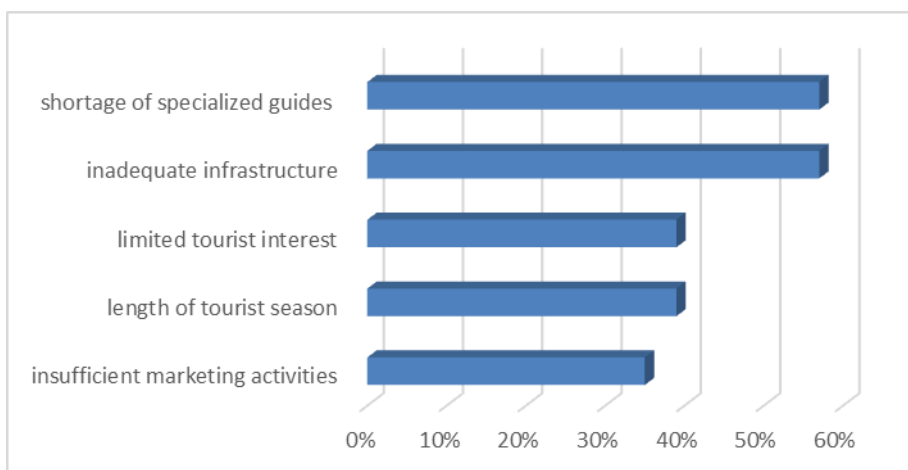
Regarding market research and the assessment of tourist preferences related to adventure tourism, the results show that most DMCs conduct such activities irregularly. An equal share of respondents (30.4%) reported that they never or only occasionally engage in market research, while 34.8% do so rarely. Only a very small number of DMCs (one in each case) indicated that they conduct research frequently or consistently. These findings suggest that most DMCs do not systematically employ market research as a tool for designing and adapting their adventure tourism offerings.



**Fig. 2.** Promotion channels for adventure tourism products of DMCs in SDC

The promotional channels used by DMCs for marketing products featuring adventure activities are presented in Figure 2. The results indicate that promotion is predominantly conducted through the companies' own websites (78,3%), confirming the crucial role of digital presence and direct online communication with potential clients. Partner agencies (56,5%) and social media (52,2%) also stand out as important promotional channels, while specialized tourism fairs are used considerably less frequently (21,7%). Traditional forms of promotion, such as printed materials (e.g., posters and window displays) and OTA platforms, are marginally represented, being used by only 4,3% of the surveyed agencies.

Furthermore, the findings indicate a highly positive perception among DMCs regarding the potential for developing adventure tourism in SDC. More than half of the respondents (56,5%) rated this potential with the highest score, while an additional 34,8% assigned a score of 4. Only a small share (4,3%) provided neutral or negative evaluations, suggesting a strong consensus on the region's attractiveness and opportunities for further development of adventure tourism.



**Fig. 3.** DMCs' key challenges in the development of adventure tourism in SDC

Figure 3 shows DMCs' key challenges in the development of adventure tourism in SDC. The most frequently cited barriers include the inadequate infrastructure and shortage of specialized guides (56,5%), followed by seasonality and limited tourist interest (39,1%), as well as insufficient marketing activities (34,8%). Additional challenges relate to tour organization, safety and logistics, adapting products to diverse tourist profiles, and maintaining competitiveness in an increasingly saturated market.

Destination management companies identify the lack of infrastructure and specialized guides as the main obstacles to the development of adventure tourism in SDC, highlighting the need for investment and professional training. Seasonality, limited tourist interest, and insufficient marketing further restrict growth, emphasizing the importance of product diversification and off-season development. Additionally, issues such as unfair competition and unregulated low-cost tours underline the necessity of stronger coordination and regulation to ensure sustainable and high-quality adventure tourism development.

The survey also examined the collaboration of DMCs with destination management organizations (DMOs). Most respondents reported collaboration through strategic alignment for adventure tourism development (43,5%), participation in trade fairs (21.7%), and co-financing promotional activities (13%), while individual initiatives accounted for a smaller share (4,3%).

A notable 13% indicated no collaboration. Satisfaction with collaboration was moderate, with most ratings at 3 (30,4%) or 4 (34,8%), and only 4,3% giving the highest rating of 5, indicating room for improvement.

Based on the research findings, the following recommendations are proposed to support the further development of adventure tourism in SDC. To enhance adventure tourism, DMCs should develop seasonally extended products such as hiking, trekking, and cycling tours, as well as multi-day expeditions that combine various adventure activities. The integration of thematic tours highlighting local heritage and digital tools (e.g., GPS apps, trail information) can further enrich visitor experiences. Certified guides and safety standards are essential to ensure quality and trust.

Strengthening collaboration among DMCs, tourist organizations, and the local community is crucial. Active involvement of local stakeholders in tourism activities, the creation of coordination platforms, and shared online tools can improve visibility, sustainability, and efficiency. These measures collectively support a diversified, innovative, and sustainable adventure tourism offer in SDC.

## **CONCLUSION**

The findings of this study highlight the significant role of Destination Management Companies (DMCs) in the development of adventure tourism in Split-Dalmatia County. Adventure tourism constitutes a strategically important segment for most DMCs, primarily offered through one-day excursions, with rafting, kayaking, and ziplining being the most frequently organized activities.

While client interest in adventure experiences is generally moderate to high, most DMCs do not systematically conduct market research, which limits the potential for tailored product development.

The research identified several challenges preventing the growth of adventure tourism, including limited infrastructure, a shortage of certified guides, high seasonality, insufficient marketing, and regulatory gaps in the competitive environment. Collaboration with destination management organizations exists but remains moderate, indicating potential for improvement in strategic alignment and joint promotional efforts.

Based on these findings, it is evident that expanding the range of adventure products, particularly multi-day and thematic experiences, integrating digital tools, and ensuring certified guides and safety standards, can enhance the tourism offer and extend the season. Furthermore, strengthened collaboration among DMCs, local tourist organizations, and the community is essential to promote sustainable, innovative, and diversified adventure tourism. Collectively, these measures can contribute to reducing seasonality, increasing destination competitiveness, and fostering a higher quality and more sustainable tourism experience in Split-Dalmatia County.

## REFERENCES

1. Adventure Travel Trade Association. (2018). 20 Adventure Travel Trends to Watch in 2018. Retrieved from: <https://cdn.adventuretravel.biz/research/2018-Travel-Trends.pdf>
2. Akaho, Y. (2024). Conceptualizing the adventure tourist as a cross-boundary learner. *Journal of Outdoor Recreation and Tourism*, 47, 1-9.
3. Cater, C. I. (2006). Playing with risk? Participant perceptions of risk and management implications in adventure tourism. *Tourism Management*, 27, 317-325.
4. Croatia.eu (2025). land and people, available at: <https://croatia.eu/index.php/en/home-en/political-organisation/counties> (04.10.2025.)
5. Croatian Bureau of Statistics (2025). Tourist arrivals and nights in 2024, First Release TUR-2024-1-2, 28. February 2025, available at: <https://podaci.dzs.hr/media/2qelx3ds/tur-2024-1-2-tourist-arrivals-and-nights-in-commercial-accommodation-2024.pdf> (04.10.2025.)

6. Čorluka, G., Matošević Radić, M., Geić, S. (2013). Selective Forms of Tourism – the Way of Extending the Summer Season. *Economy Transdisciplinarity Cognition*, 16(2), 88-96.
7. Gjurković, D., Matošević Radić, M. (2020). Travel intermediary – supporter or destroyer of the cultural tourism development. *Proceedings of FEB Zagreb International Odyssey Conference on Economics and Business*, (2)1, 802-811.
8. Hall, C. (1992). Adventure, sport and health tourism. In C. M. Hall, & B. Weiler (Eds.), *Special interest tourism*, Belhaven Press, 141-158.
9. Janowski, I., Gardiner, S., Kwek, A. (2021). Dimensions of adventure tourism. *Tourism Management Perspectives*, 37, 1-11.
10. Jenkins, I. (2019). *Adventure tourism and outdoor activities management: A 21st century toolkit*. CABI.
11. Meier, J. (1978). Is the risk worth taking. *Journal of Physical Education and Recreation*, 49(4), 31-33.
12. Rantala, O., Rokenes, A., Valkonen, J. (2018). Is adventure tourism a coherent concept? A review of research approaches on adventure tourism. *Annals of Leisure Research*, 21(5), 539-552.
13. Sand, M., Gross, S. (2019). Tourism research on adventure tourism – Current themes and developments. *Journal of outdoor recreation and tourism*, 28, 1-4.
14. Swarbrooke, J., Beard, C., Leckie, S., & Pomfret, G. (2003). *Adventure tourism: The new frontier*: Routledge.
15. The Tourist Board of Split-Dalmatia County (2025). Statistics, Tourist traffic in 2024. various publications, available at: <https://dalmatia.kinsta.cloud/turisticki-promet-u-2023-godini-2/> (04.10.2025.)
16. UNWTO (2014). *Global Report on Adventure Tourism*. Retrieved from: <https://doi.org/10.18111/9789284416622>
17. Wang, J., Liu-Lastres, B., Ritchie, B. W., Pan, D. Z. (2019). Risk reduction and adventure tourism safety: An extension of the risk perception attitude framework (RPAF). *Tourism Management*, 74, 247-257.
18. Weaver, D. B. (2001). Chapter 5: Ecotourism in the context of other tourism types. In D. B. Weaver (Ed.), *The encyclopedia of ecotourism*, CABI Publishing, pp. 73-83.

# ANALYSIS OF HOTEL STANDARDS AND CLASSIFICATION IN THE SARAJEVO CANTON

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**DOI:** 10.35666/25662880.2025.11.56

**UDC:** 338.488.2:006.3(497.6 KS)

**Abstract:** The tourism industry and hotel sector are global industries facing increasing customer expectations in the dynamic tourism market environment. Sarajevo Canton attracts a large number of tourists, especially during the summer season, with tourism playing a crucial role in the economic development of the destination. Quality management is a key element for the long-term success of hotel establishments. This paper highlights the importance of quality management systems, standardization, and categorization, and their contribution to improving service quality in the hotel industry. The aim is to analyze quality management systems and the categorization system within the hotel sector in Sarajevo Canton, providing insight into the current state of the industry, identifying problems, and recommending measures for improving and enhancing the tourism offer. The analysis revealed inconsistencies in legal regulations at the federal and lower government levels and a lack of national legislation for hospitality activities, leading to overlapping or conflicting rules. Although Sarajevo Canton has achieved certain successes in tourism, the hotel sector requires improvement. Comparison with international standards and practices indicates the need for investment in facility modernization, enhancement of professional services, legislative harmonization, and staff education. Recommendations include strengthening inspection controls, reducing the informal economy, encouraging the implementation of ISO and international standards, re-categorization of 4 and 5-star hotels, defining jurisdiction over hotels with 3 or fewer stars, and appropriate reconstruction and modernization aligned with global trends.

**Keywords:** Hotel sector; classification; standardization; Sarajevo Canton

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## INTRODUCTION

The quality of service in today's hotel industry is a key factor that sets hospitality businesses apart from their competitors. Both the overall standard of services offered and the quality of customer care play a crucial role in meeting guests' expectations, which in turn strongly influences their satisfaction and loyalty (Panasiuk, 2019; Suhartanto et al., 2020; Yum & Yoo, 2023).

In light of the need to safeguard both competitive market dynamics and, most importantly, consumer rights within the hotel industry, public authorities have implemented measures to standardize hotel service quality. Categorization serves as a regulatory tool of state policy, developed in collaboration with professional associations within the hotel sector. This mechanism is closely linked to the broader concept of service quality offered by hotels, encompassing not only consumer-facing services but also other critical elements such as pricing, quality standards, terms of sale, and the physical environment in which services are delivered (Wszendybył-Skulska & Panasiuk, 2024).

Bosnia and Herzegovina, including the Sarajevo Canton, possesses significant potential for the development of tourism. As a rapidly growing industry, tourism represents one of the key drivers of economic development for the Sarajevo Canton (Čaušević, 2023; Čaušević & Osmanović, 2023). Standardization in tourism and hospitality, as part of a broader global process, has yet to be fully realized in Sarajevo Canton. In recent years, the Canton has experienced significant tourism growth, however, a noticeable gap remains between local economic actors and contemporary trends, as well as the expectations of modern tourists. One of the key factors contributing to the inadequate response of both businesses and government institutions to evolving tourism dynamics is the improper implementation or complete absence of hotel industry standards.

Effective participation in the competitive tourism market requires the adoption of international quality and safety standards, including the ISO 9000 series (such as ISO 9001, ISO 9004, and ISO 19011) which pertain to quality management systems, ISO 22000 which addresses food safety through the implementation of HACCP systems, and the ISO 14000 series which focuses on environmental management practices (Lokvančić, 2025).

The categorization of hospitality establishments is a formal process used to assess and define the level of standards achieved in terms of facility design, equipment, and service quality within the hotel sector. Through this process, hotels are classified into specific categories based on the nature and quality of services provided, as well as the fulfillment of minimum technical requirements and criteria necessary to determine the type and classification of the establishment.

Globally, there are more than 30 different hotel classification systems in use. These systems typically represent service quality levels using stars or diamonds, although in some countries, alphabetical grades ranging from 'A' to 'F' are also employed (Lokvančić, 2025).

According to the Hospitality Law of the Federation of Bosnia and Herzegovina and the Regulation on Classification, Minimum Requirements, and Categorization of Hospitality Establishments within the Hotel Group, hotels are classified as hospitality facilities subject to mandatory categorization. Each hotel is evaluated and categorized individually. Existing hotel establishments are classified into four categories: two-star, three-star, four-star, and five-star hotels. In contrast, newly constructed hotel facilities are categorized into three tiers: three-star, four-star, and five-star hotels. Categorization is indicated by a standardized sign placed on the facility, displaying both the designation "Hotel" and the corresponding number of stars reflecting the hotel's category. Additionally, reclassification of a hospitality establishment may occur if it is determined that the facility no longer meets the prescribed standards for its assigned category. In such cases, an official decision is issued to revoke the previously granted categorization status (Lokvančić, 2025).

The primary objective of this paper is to conduct an in-depth analysis of the processes of standardization, the application of international standards, and the categorization of hotel facilities within the Sarajevo Canton. By exploring these themes, the study provides insight into the current state of hotel infrastructure and the key challenges faced by stakeholders in the hospitality sector. The analysis encompasses various dimensions of standardization and classification, including physical infrastructure, service delivery, and staff quality.

Given that the Sarajevo Canton is a highly popular tourist destination, the quality of hotel services plays a critical role in ensuring competitiveness and long-term success. This study offers a comprehensive overview of the hotel sector's current conditions, identifying existing shortcomings, areas in need of improvement, and best practices that could enhance the quality of accommodation services. Consequently, the findings of this research may have practical implications for the strategic development and strengthening of the tourism offering in the Sarajevo Canton.

## METHODOLOGY AND RESEARCH RESULTS

The research involved visits to randomly selected 4- and 5-star hotels in the Sarajevo Canton, using a quantitative research method, the survey method. The questionnaire consisted of questions related to the current level of quality and standards in the selected hotels. The chosen hotels in the Sarajevo Canton were Courtyard by Marriott (4-star) and Malak Regency Hotel (5-star).

The hotel selected for this research is Courtyard by Marriott, located in the Skenderija area. The profile of the respondent who participated in this survey is as follows:

<b>Respondent Profile</b>	
<b>Hotel</b>	Courtyard by Marriot
<b>Position</b>	Human Resources Department Manager
<b>Education Level</b>	University Degree

Source: Lokvančić, 2025.

The aim of this research, was to collect direct and precise data on the presence of international standards and the level of quality in the selected 4-star hotel. The survey responses are presented in tabular form as follows:

<i>Hotel Courtyard by Marriot</i>		
	QUESTIONS	RESPONSES
1.	How would you rate the current service standards in the hotel? – Excellent – Good – Satisfactory – Poor	– Excellent
2.	On a scale of 1 to 5, how well do you think the current standards and conditions in the hotel align with its 4-star rating?	– 5
3.	Which standards (ISO or international) are currently implemented in the hotel?	– HACCP

4.	What additional services or amenities do you believe could contribute to improving the quality of service in the hotel? (Open-ended question)	– More conference and restaurant space
5.	Do you believe that the current criteria for standards and categorization at the Sarajevo Canton level align with market needs and the growth of tourism? – Yes – No – No opinion	– yes
6.	How would you rate the competitiveness of hotels in Sarajevo Canton compared to other destinations in the region? – Excellent – Good – Satisfactory – Poor	– Excellent – the hotel – Satisfactory – Sarajevo Canton
7.	Do you have any information on how the categorization of the property was conducted after its construction?	– Based on the categorization criteria prescribed by the Federal Ministry of Environment and Tourism (FMOIT)

Source: Lokvančić, 2025.

The hotel selected for this research is Malak Regency Hotel, located in Ilidža. The profile of the respondent who participated in this survey is as follows:

<b>Respondent Profile</b>	
<b>Hotel</b>	Malak Regency
<b>Position</b>	Sales Manager
<b>Education Level</b>	University Degree

Source: Lokvančić, 2025.

The aim of this research, was to collect direct and precise data on the presence of international standards and the level of quality in the selected 5-star hotel. The survey responses are presented in tabular form as follows:

<i>Malak Regency Hotel</i>		
	QUESTIONS	RESPONSES
1.	How would you rate the current service standards in the hotel? – Excellent – Good – Satisfactory – Poor	– Satisfactory
2.	On a scale of 1 to 5, how well do you think the current standards and conditions in the hotel align with its 5-star rating?	– 5
3.	Which standards (ISO or international) are currently implemented in the hotel?	– HACCP – Halal food certification
4.	What additional services or amenities do you believe could contribute to improving the quality of service in the hotel? (Open-ended question)	– Children's playroom and activities for children – Space for a conference hall
5.	Do you believe that the current criteria for standards and categorization at the Sarajevo Canton level align with market needs and the growth of tourism? – Yes – No – No opinion	– yes
6.	How would you rate the competitiveness of hotels in Sarajevo Canton compared to other destinations in the region? – Excellent – Good – Satisfactory – Poor	– Excellent – both the hotel and Sarajevo Canton

7.	Do you have any information on how the categorization of the property was conducted after its construction?	<ul style="list-style-type: none"> <li>– The property was constructed from the outset to meet the criteria of a 5-star facility, and the categorization was subsequently confirmed by inspection</li> </ul>
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Source: Lokvančić, 2025.

After conducting the research and survey in both selected hotels, the respondents who participated in evaluating the level of quality and standards in their hotels generally rated them as good, namely excellent or satisfactory, with no negative feedback regarding the quality of services. The respondents gave the highest rating on the scale (1 to 5), specifically a score of 5, for the accommodation standards in all surveyed hotels.

Regarding hotel, ISO, or international standards, the hotels included in this study apply the HACCP standard. HACCP is a standard implemented in food preparation processes. This system ensures food safety and quality assurance by identifying and controlling potential hazards that could affect food safety. It is important to note that Malak Regency Hotel also holds a Halal food certification, as the entire hotel system is dedicated to the Halal concept.

When it comes to potential suggestions for service improvement, respondents mainly proposed expanding conference space capacity or, in some cases, adding children’s facilities and playrooms. All respondents agreed that the criteria for standards and categorization at the Sarajevo Canton level align with market needs and the growth of tourism.

Regarding the final question, respondents rated the hotels as excellent in terms of competitiveness within the Sarajevo Canton market, and as satisfactorily competitive in relation to the broader regional market (Lokvančić, 2025).

Following the conducted research in the hotels and the successful survey, an additional study was carried out involving the analysis of reviews from one of the most popular accommodation booking platforms, Booking.com. The review analysis focused on the hotels selected for this research, examining the most recent guest feedback related to the category “Value for Money.”

In this category, guests who have stayed at the respective hotels provide reviews specifically concerning the standards and quality levels of the hotel, as well as whether the hotel meets the standards appropriate for its current 4-star or 5-star rating.

This supplementary research was conducted with the purpose of comparing the perspectives of employees and guests regarding the same hotel, and to determine whether guests rate the hotel at a level consistent with how it is represented by its staff (Lokvančić, 2025).

### **Review Analysis for Courtyard by Marriott Hotel**

1. Everything met the standard
2. Excellent service
3. Good experience in terms of standards
4. High standards of cleanliness
5. High hotel standards in the city
6. Service does not match the category and price
7. Good service standards
8. Price too high for the service
9. Good price for the service
10. Service does not match the quality

Observing the above reviews related to the evaluation of standards and quality levels at Courtyard by Marriott, it can be concluded that guest opinions are divided. However, the majority of reviews were positive, with the hotel rated as meeting its category and being appropriately priced for a 4-star rating. Guests were particularly satisfied with standards related to overall cleanliness and comfort in the hotel.

The most frequent negative feedback concerned breakfast and parking facilities. Guests often complained about insufficient parking spaces or additional parking fees. Regarding breakfast, guests described it as insufficiently varied and noted the high extra charge, which was not mentioned in their reservations.

The overall rating on Booking.com for reviews in the “Value for Money” category is 8.4. It can be said that the hotel meets the criteria and maintains a relatively good level of quality; however, there is room for improvement to not only meet but exceed guest expectations (Lokvančić, 2025).

## **Review Analysis for Malak Regency Hotel**

1. Excellent service
2. Well-equipped hotel
3. Excellent service
4. Luxurious standards
5. Excellent service and luxurious hotel
6. Meets 5-star criteria
7. Price too high for the service
8. Hotel does not justify the stars
9. Good quality
10. Hotel justifies the price

Analyzing the reviews from the Booking.com platform for Malak Regency Hotel, it can be concluded that the hotel meets the criteria and maintains a very high level of service and quality. A significantly larger number of reviews come from guests who were highly impressed with the service, especially cleanliness, comfort, and the staff's attitude toward guests. Additionally, guests are very satisfied with the hotel's halal concept, as the majority of guests come from GCC countries. The hotel's location was also highly rated, being in a quiet area close to the airport. The most frequent negative feedback concerned the spa and wellness center, which was considered below the standard expected of a 5-star hotel.

However, the hotel has been undergoing renovations and infrastructure projects targeting this area to improve service quality for its guests. The overall rating on the platform in the "Value for Money" category is 8.1. Although this rating appears somewhat low, the numerous positive reviews speak volumes about the quality of this hotel (Lokvančić, 2025).

## **Review Analysis of Other Selected 4- and 5-Star Hotels**

Since the field research was conducted for only two hotels, an additional analysis was performed on reviews for randomly selected hotels in Sarajevo Canton where no field research took place. The analyzed reviews focus on the category "Value for Money," in which guests who stayed at these hotels leave feedback specifically related to the standards and quality levels of the hotel, as well as whether the hotel meets the criteria for its current 4-star or 5-star rating. This supplementary research was conducted to gain additional perspective on the quality level and guest perception, as well as to identify strengths and weaknesses of hotels not covered by the field research.

The first 4-star hotel analyzed is Hotel President, located in the city center, in close proximity to Bašćaršija. Reviews concerning the quality level and standards at the hotel include:

1. Excellent level of cleanliness and staff attitude towards guests
2. Luxurious hotel
3. Exceptional service
4. Outstanding hotel
5. Poor breakfast
6. Perfect hotel
7. Everything was up to standard
8. Exceptional cleanliness
9. Breakfast not up to the standard of a 4-star hotel
10. Remarkable hotel

Analyzing reviews from Booking.com for Hotel President, it can be concluded that the hotel largely meets standards and maintains a high level of service quality. The vast majority of guest reviews are positive. Guests are particularly satisfied with the exceptional cleanliness of the hotel and the level of service provided by staff, who are described as very kind and accommodating. Additionally, guests highlighted the excellent parking facilities, which include an underground garage. The most frequent negative feedback concerns breakfast, with guests sharing similar opinions. Breakfast was generally described as poor, featuring cold or even spoiled items, as well as a limited selection of products or dishes offered to guests. The overall rating on Booking.com for reviews in the “Value for Money” category is 8.6. In general, the hotel meets criteria and maintains a relatively good level of quality; however, there is always room for improvement to not only meet but exceed guest expectations (Lokvančić, 2025).

The second analyzed 4-star hotel is Hotel Monti Spa & Wellness, located on the Olympic Mountain Igman. The reviews related to the quality level and standards at the hotel are as follows:

1. Exceptional hotel
2. High-quality hotel facilities
3. Excellent room standard
4. Outstanding hotel quality
5. Diverse hotel amenities
6. High level of food quality
7. Professionalism

8. High price for the service quality
9. High-level hotel ambiance and interior design
10. Luxurious hotel

After analyzing reviews from the Booking.com platform, Hotel Monti Spa & Wellness has received significantly more positive reviews than negative ones. Guests were particularly impressed with the hotel's luxury, cleanliness, and overall ambiance. A large number of positive reviews rated the breakfast extremely highly, as well as the overall quality and variety of food served in the hotel's restaurant.

The few negative reviews were primarily related to the spa and wellness department. Some guests complained about the cold temperature of the pool water and frequent malfunctions of certain spa facilities. The overall score on Booking.com in the "Value for Money" category is 8.6. In general, the hotel meets the required standards and maintains a relatively high level of quality. However, there is always room for improvement, even in minor details which, although seemingly insignificant, can leave a strong impression on guests (Lokvančić, 2025).

The first 5-star hotel included in the additional analysis is Apeiro City Avant-garde Hotel, located in the city center, directly across from Hotel Europe. The reviews related to the quality level and standards at the hotel are as follows:

1. Insufficient service quality for a 5-star hotel
2. Exceptional hotel
3. Excellent staff service
4. Outstanding service
5. Friendly staff
6. Beautiful ambiance
7. High level of cleanliness
8. Modern furnishings
9. Professional staff
10. Insufficient quality for the price

After analyzing the reviews for this hotel, it can be concluded that it offers a high level of standards and good quality. Guests are particularly satisfied with the luxurious ambiance and modern interior, which is not surprising considering the hotel is one of the newly built establishments in Sarajevo. Guests also emphasize the extremely high level of professionalism and friendliness of the staff, as well as the quality of food served in the restaurant.

Negative reviews are rare and mostly relate to noise, however, the hotel's central location means that staying near city attractions often comes with a lively and energetic environment.

The overall rating on Booking.com in the "Value for Money" category is 8.8. It is worth noting that although this hotel is rated 5 stars, it does not offer spa and wellness facilities. Nevertheless, this does not negatively affect its overall rating or the guest experience, as many guests left positive reviews and reported a highly satisfying stay (Lokvančić, 2025).

The second 5-star hotel and the final one in this analysis is Hotel Europe, located in the city center near the City Hall and the Old Town. The reviews concerning the hotel's quality level and standards are as follows:

1. Poor cleanliness for a 5-star hotel
2. Spacious rooms
3. Low-quality breakfast
4. Outdated equipment in the hotel
5. Rooms meet the hotel's category
6. Average service
7. Partially outdated interior
8. High price
9. Food below average for the price
10. Excellent hotel facilities

After analyzing the reviews on the platform for Hotel Europe, it becomes evident that the hotel generally does not meet the required standards and lacks a high level of quality. Many negative reviews were left by guests regarding the hotel's cleanliness, which was not up to the level expected of a 5-star property, with some guests noting that rooms were not cleaned daily.

Another major point of criticism was the overall condition of the hotel. Guests mentioned outdated or even dirty furniture and equipment, old gym and spa facilities, and an overall atmosphere that some described as fitting for the 1960s. Breakfast also received significant negative feedback for lacking quality and variety, especially given the hotel's 5-star status.

On the positive side, guests praised the spaciousness of the rooms, which were consistently rated as meeting 5-star expectations. The overall "Value for Money" rating on Booking.com is 7.8, which is the lowest rating in this category among all the hotels analyzed. However, this low score is justified by the large number of

negative reviews. Despite its shortcomings, the hotel has an excellent location and enormous potential to become one of the most modern and luxurious hotels in Sarajevo. Hotel Europe has been a well-known name for many years, but it is now essential to take concrete steps toward renovation and infrastructure upgrades in order to raise its level of quality and meet the expectations of guests who arrive seeking a luxury experience that is currently lacking (Lokvančić, 2025).

## CONCLUSION

From the conducted research, it can be concluded that the surveyed hotels do not sufficiently implement the process of standardization and the introduction of standards from various areas that could improve their service quality. It is important to note that, compared to hotels in the region, the surveyed hotels have not implemented ISO standards related to energy efficiency, environmental protection, occupational health and safety, or information security management. However, despite these shortcomings, the respondents expressed satisfaction with the current levels of quality in the hotels and reported positive outcomes.

The survey method was successfully and efficiently carried out among respondents in hotels categorized as 4-star and 5-star. Challenges and limitations were encountered when attempting to communicate with representatives of 3-star hotels, as none of the representatives agreed to participate in the research or provide any feedback.

Regarding future research, a deeper analysis of specific standards influencing guest satisfaction in hotels is recommended. At the same time, a comparison with best practices in hotel standardization within the region is necessary. Additionally, it would be beneficial to investigate the impact of emerging tourism trends on hotel service standards.

The results of this research may be useful to all parties interested in tourism and hospitality topics, including hoteliers and managers seeking better insights into the state of the hotel sector in Sarajevo Canton, hotel representatives aiming to improve services and adapt to market demands, tourism organizations focused on development and promotion, as well as employees in various institutions who wish to be informed about the status of the hospitality sector and its potential improvements.

## REFERENCES

1. Čaušević, A. (2023). The impact of the war between Russia and Ukraine on the attitudes of the inhabitants regarding tourist trips: The case of Bosnia and Herzegovina. *Folia Geographica*, 65(2), 31–52.
2. Čaušević, A. and Osmanović, M. (2023). Perception of tourist travel during the COVID 19 pandemic. *Deturope - The central european journal of regional development and tourism*, 15(1), 125-140.
3. Lokvančić, S. (2025). Analysis of hotel standards and classification in the Sarajevo Canton. Master's Thesis, University of Sarajevo: Faculty of Science, Sarajevo.
4. Panasiuk, A. (2019). *Rynek Turystyczny. Struktura, Procesy, Tendencje*. Difin: Warsaw, Poland, 2019.
5. Suhartanto, D., Brien, A., Primiana, I., Wibisono, N. and Triyuni, N.N. (2020). Tourist loyalty in creative tourism: The role of experience quality, value, satisfaction, and motivation. *Current Issues in Tourism*, 23, 867–879.
6. Yum, K. and Yoo, B. (2023). The impact of service quality on customer loyalty through customer satisfaction in mobile social media. *Sustainability*, 15, 11214.
7. Wszendybył-Skulska, E. and Panasiuk, A. (2024). The Classification of Hotels in the Context of Sustainable Development Factors: A Case Study of Public Policy in the European Union and Poland

# PRECIOUS AND SEMI-PRECIOUS STONES IN THE MINERALOGICAL COLLECTION OF THE NATIONAL MUSEUM OF BOSNIA AND HERZEGOVINA

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DOI: 10.35666/25662880.2025.11.70

UDC: 069[549.091:679.87](497.6)

**Abstract:** The National Museum of Bosnia and Herzegovina was founded in 1888 and consists of the Department of Natural History, the Department of Ethnology and the Department of Archaeology. As part of the Department of Natural Sciences, the National Museum of Bosnia and Herzegovina houses a rich collection of the Geological Department with numerous and diverse minerals, rocks and fossils from Bosnia and Herzegovina and neighboring countries, as well as from the most distant parts of the world. The rich mineralogical collection is important as a tourist offer because it contains samples of minerals from Bosnia and Herzegovina and from many parts of the world, and some of them come from mines that are no longer in use. Minerals belonging to precious and semi-precious stones in the exhibition mineralogical collection of the Department of Natural Sciences have been revised. The samples have been analyzed in detail, the weights and sizes of the samples have been measured, the inventory numbers on the samples and inventory books have been checked, after which they have been photographed and entered into a scientific database. The work analyzes the most significant and best-known specimens of precious and semi-precious stones found in the mineralogical collection of the National Museum of Bosnia and Herzegovina. The role of the National Museum in the promotion of tourism is significant because the mineralogical collection of the Department of Natural Sciences contains precious and semi-precious stones from world-famous sites, such as a diamond from the Kimberley region in South Africa, ruby and sapphire crystals from the a world-famous site in Sri Lanka, an emerald from Russia, where the largest known emerald crystal was found. The collection exhibits garnet crystals from the largest European deposits (in the Czech Republic and the European Alps) as well as crystals from the richest deposits in the world, such as topaz crystals from Brazil, beautiful and large rubellite crystals from California (USA) and tourmaline crystals found on the island of Elba (Italy). The setting features prized and beloved amethysts in the form of beautiful geodes from the Czech Republic and agates from the world's richest agate deposits in Brazil.

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**Keywords:** National Museum, mineralogical collection, precious stones, semi-precious stones, diamond, rubies, sapphires, emeralds, deposits

## INTRODUCTION

The National Museum of Bosnia and Herzegovina was founded back in 1888 and consists of the Department of Natural History, the Department of Ethnology and the Department of Archaeology. During the establishment of the Department of Natural Sciences, several experts dealt with geological issues. In their works, they deal with serpentine, stiva, petrographic composition of Bogomil stećak (Radimski, 1889), asbestos deposits, cave bear, moose, deer and wild beef (Grimer, 1987, 1898, 1899). After the foundation of the museum, the mineralogical and geological collection contained a total of 458 specimens, and in the next 5 years, thanks to the efforts of Radimski and Grimer, the number of specimens increased to 4,011.

The arrival of Fridrich Katzer, a well-known European expert, was decisive for the development of the geology of Bosnia and Herzegovina. This versatile researcher works on many problems such as geological mapping, stratigraphy and palaeontology, mineralogy and petrography, exploration of ore deposits of various mineral raw materials and studies tectonics, hydrogeology and mineral waters. He published most of his studies (about 100) in European journals, and relatively few (about 25) in the *Glasnik Zemaljsko muzeja* (Katzer, 1903, 1904, 1906, 1915).

Within the Department of Natural Sciences in the National Museum of Bosnia and Herzegovina are the collections of the Department of Geology with numerous and diverse minerals, rocks and fossils from Bosnia and Herzegovina and neighboring countries as well as from the most distant parts of the world.

The mineralogical collection contains 4,766 samples, and the petrographic collection contains 1,300 samples. Even more numerous than these two collections is the paleontological collection with about 9,900 fossils. The rich mineralogical collection contains samples of minerals from Bosnia and Herzegovina and from numerous parts of the world, and some of them come from mines that are no longer in exploitation. In the mineralogical collection, the samples are stored in the exhibition display and the scientific collection. The exhibition display consists of minerals from Bosnia and Herzegovina and the General Collection, which contains minerals from other parts of the world, as well as thematic exhibition displays: a showcase of minerals and ores of Srebrenica, minerals of Vareš, minerals of Trepča and others. Precious and semi-precious stones are also found within the General Collection and the collection "Minerals of Bosnia and Herzegovina", where minerals are classified according to crystallochemical classification into non-silicates (elements, sulfides and sulfosalts, oxides and hydroxides, and carbonates, sulfates, etc.) and silicates. In addition to natural precious and semi-precious stones, specimens of artificial (synthetic) stones are also exhibited.

A review of precious and semi-precious stones in the exhibition mineralogical collection of the Department of Natural Sciences in the National Museum of Bosnia and Herzegovina was carried out. The paper analyzes the most significant and best-known specimens of precious and semi-precious stones in the mineralogical collection of the Department of Natural Sciences in the National Museum of Bosnia and Herzegovina. The samples were analyzed in detail, the weights and sizes of the samples were measured, the inventory numbers on the samples and inventory books were checked, then they were photographed and entered into the database.

The mineralogical collection of the Department of Natural Sciences is also significant in that it contains precious and semi-precious stones from world-famous sites, such as a diamond from the Kimberley region in South Africa, ruby and sapphire crystals from a world-famous site in Sri Lanka, an emerald from Russia, where the largest known emerald crystal was found.

The collection exhibits garnet crystals from the largest European deposits (in the Czech Republic and the European Alps) as well as crystals from the richest deposits in the world, such as topaz crystals from Brazil, beautiful and large rubellite crystals from California (USA) and tourmaline crystals found on the island of Elba (Italy). The setting features prized and beloved amethysts in the form of beautiful geodes from the Czech Republic and agates from the world's richest agate deposits in Brazil. All the mentioned minerals are analyzed in detail and presented in the paper.

## **MATERIALS AND METHODS**

In mineralogy, minerals are classified based on their crystallochemical properties, i.e. chemical composition and crystal symmetry. Color is one of the physical properties of minerals and is one of the most important properties of a gemstone and often the most important factor in how a mineral will be used in jewelry. The other two important properties for classifying gems are rarity and price. That is why the first place in gemology is taken by diamonds, rubies, sapphires and emeralds, while less precious minerals such as quartz and agate take the last places. Pearls, corals, amber and synthetic stones are classified in a separate system.

Gemologists mainly use the internationally accepted classification of gemstones according to the RAL 560 A5 guideline of the German Gemmological Society. This classification (J.Bauer, V. Bouska, 1989, p.78) is used in this work.

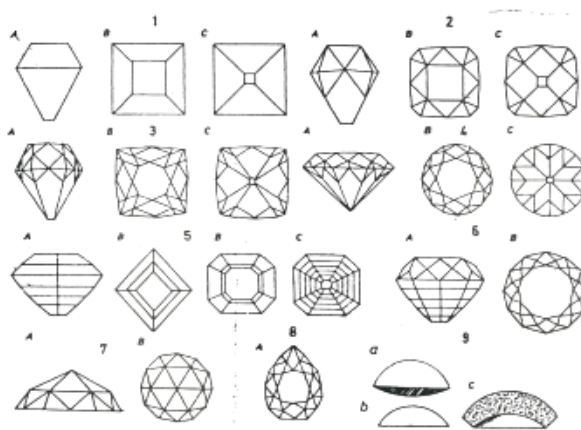
Specimens of precious and semi-precious stones stored in the exhibition mineralogical collection of the Department of Natural Sciences were reviewed and each mineral was analyzed in detail.

The inventory numbers on the samples and inventory books were checked, the weights and sizes of the samples were measured, after which they were photographed and entered into a scientific database with data on their chemical composition, physical properties, deposits and other significant data. The most significant and well-known specimens of precious and semi-precious stones from the largest European and world-famous deposits were analyzed in detail.

A total of 255 samples of precious and semi-precious stones from the exhibition mineralogical collection were reviewed. In this paper, only some specimens of precious and semi-precious stones that are more significant are discussed in detail. When determining precious and semi-precious stones, methods must be used that will not damage the stone, especially if it is polished. Therefore, an instrument that enables quick determination without damaging the stone, such as a binocular microscope, was used. Numerous methods were used, such as the observation method, the description method, the analysis and synthesis method, the statistical method, the classification method, the comparative method, the genetic method, the historical method, etc.

## RESULTS AND DISCUSSION

During the processing process, a precious stone loses up to half of its original mass, but its value increases by several times. The quality and price of a precious stone is determined after its processing. The weight of precious and semi-precious stones is measured in carats. A metric carat defines a precise weight of 0.2 g, while for precious metals, a carat is a measure of purity.



**Fig. 1.** The main types of gemstone cutting: A - side view, B - top view, C - bottom view; 1 and 2 - simple for small stones; 3 - old brilliant; 4 - modern brilliant; 5 - stepped; 6 - combined, 7 - rosette; 8 - teardrop; 9 - cabochon: a - double, b - simple, c - hollowed

The rich mineralogical collection is important as a tourist offer because it contains samples of minerals from Bosnia and Herzegovina and from many parts of the world, and some of them come from mines that are no longer in use. The fact that the collection is significant as a tourist offer of the Museum is also evidenced by the fact that it contains over 60 specimens of meteorites, among which are world-famous meteorites such as the famous iron meteorites Canon Diablo and Sikhote Alin and the stone meteorites L'Aigle and Stonarov. The collection also includes the stone meteorite Zavid (fallen near Zvornik), which stands out for its weight (over 60 kg) and the iron meteorite Ozren (found on Mount Ozren). Both of these meteorites are included in the world catalog of meteorites that fell or were found on the territory of Bosnia and Herzegovina.

The role of the National Museum in the promotion of tourism is significant because the mineralogical collection of the Department of Natural Sciences contains precious and semi-precious stones from world-famous sites, such as a diamond from the Kimberley region in South Africa, ruby and sapphire crystals from the a world-famous site in Sri Lanka, an emerald from Russia, where the largest known emerald crystal was found. The collection exhibits garnet crystals from the largest European deposits (in the Czech Republic and the European Alps) as well as crystals from the richest deposits in the world, such as topaz crystals from Brazil, beautiful and large rubellite crystals from California (USA) and tourmaline crystals found on the island of Elba (Italy). The setting features prized and beloved amethysts in the form of beautiful geodes from the Czech Republic and agates from the world's richest agate deposits in Brazil.

In total, more than 255 samples of precious and semi-precious stones from the mineralogical collection of the Department of Natural Sciences were reviewed. For all audited samples, the inventory numbers on the samples, as well as in the inventory books, were checked, and the weights and sizes of the samples were measured. Table 1 lists the number of more significant gems and semi-precious gems from the exhibition mineralogical collection that have been revised. Diamond, corundum (ruby and sapphire), beryl with varieties, topaz, garnet, zircon, tourmaline with varieties, quartz with varieties and opal are treated in detail in this paper. The most important data for chrysoberyl, andalusite, kyanite, vesuvianite, lazurite and malachite are also given.

The paper also includes photographs of some of the revised samples of precious and semi-precious stones. All revised samples are entered in the scientific database with more detailed information.

Revised samples from the exhibition and scientific collection of the National Museum will be presented in the exhibition under the title "Precious and semi-precious stones in the mineralogical collection of the National Museum of Bosnia and Herzegovina". The catalog is currently being prepared, along with a planned temporary exhibition. Photos of most of the samples will be shown in the catalog, with detailed information about the presented precious and semi-precious stones with the aim of enriching the tourist offer of this institution and increasing the interest of both foreign and domestic tourists.

**Tab. 1.** Overview of the most important gems and semi-precious stones in the exhibition mineralogical collection of the Department of Natural Sciences.

No	The name of the mineral	Number of samples	No	The name of the mineral	Number of samples
1	Diamond	1	25	Morion	3
2	Corundum	4	26	Morion and adular	1
3	Ruby	1	27	Sooty quartz	11
4	Sapphire	1	28	Rose Quartz	2
5	Spinel	1	29	Hawk's eye	2
6	Topaz	4	30	Calcedony	15
7	Beryl	6	31	Agate	21
8	Emerald	2	32	Agate and sooty	1
9	Aquamarine	2	33	Banded agate	2
10	Zircon	2	34	Mossy agate	2
11	Hyacinth	3	35	Carnelian-onyx	3
12	Tourmaline	9	36	Plasma	1
13	Rubelite	2	37	Chrysoprase	1
14	Garnet	11	38	Opal	5
15	Chrysoberyl	1	39	Precious opal	6
16	Andalusite	2	40	Resin opal	1
17	Disten - Cyanite	6	41	Hyalite	3
18	Cordierite	1	42	Menilite	1
19	Chrysolite	1	43	Vesuvian	4
20	Quartz	43	44	Aventurine	1
21	Quartz transparent	10	45	Lazurite	2
22	Amethyst	10	46	Dioptas	2
23	Amethyst - agate	1	47	Hematite	1
24	Citrine	3	48	Malachite	1

The database for precious and semi-precious stones from the exhibition mineralogical collection of the Department of Natural Sciences includes precious and semi-precious stones that are in the exhibition collection of the Department of Natural Sciences. The attachment provides a view of the database and shows the data contained in the database, such as inventory number, mineral name, physical properties of the mineral (color, scratch, luster, fracture, hardness, density, clay content), country, locality, coordinates (x and y) of the location from which the sample was taken, the date the sample was brought (delivered) to the museum, then who brought the sample, who determined the sample, who inventoried and revised the database, where the sample is located, whether in a depot or in the exhibition collection, in which inventory book the sample is entered, and whether it was photographed and whether a catalog was made for it (table 2).

**Tab. 2.** Database for precious and semi-precious stones

No	Inventory number	Name of the mineral	Number of samples	Chemical formula	Synonym	Variety	Group
1	1263	Agate	2	SiO <sub>2</sub>	Silicate	Chalcedony	Semiprecious stones
2	1168	Sapphire	1	Al <sub>2</sub> O <sub>3</sub>	Oxide	Corundum	Precious stones

No	Colour	Streak colour	Luster	Hardness	Density
1	White, yellow, brown	White	Glassy to waxy	7	2,65
2	Blue	White	Vitreous	9	4,02

No	Tenacity	Fracture	Transparency	Country
1	No tenacity	Semi-shelled	Gem varieties are transparent	Brazil
2	No tenacity	Shell-like	Transparent	India

No	City	General locality	Specific locality	X coordinate	Y coordinate	Day	Month
1	Unknown	Unknown	Unknown	-7.971	-55.541	Unknown	Unknown
2	Ceylon	Unknown	Unknown	7.566	80.866	Unknown	Unknown

No	Year	Mineral collector	Determiner of the sample	Date of inventory	Display case	Drawer
1	Unknown	Unknown	Unknown	Unknown	16	Unknown
2	Unknown	Unknown	Unknown	Unknown	16	Unknown

No	Exhibition collection / storage	Who revised the sample	Date of revision	Inventory book number	Sample photograph	Catalog
1	Exhibition collection	Sumeja Mutap	24.12.2024.	II	Yes	No
2	Exhibition collection	Sumeja Mutap	24.12.2024.	II	Yes	No

The most prized gemstone is the diamond, C crystallizes cubically. Crystals are often octahedral, sometimes dodecahedral, rarely tetrahedral. It represents one of two allotriomorphic modifications of carbon, the other being graphite.

It got its name from the Greek. the word diamond which means invincible.

Usually colorless, but can also be of different colors (black, blue, brown, green, orange, pink, red or yellow) depending on the content of impurities. The most valued diamonds are colorless. The value of diamonds increases proportionally to their purity and lack of impurities. Color, clarity, type, quality of cut and carat weight determine the value of a diamond

Hardness 10 on the Mohs hardness scale. Density 3.51.

Diamond is a pyrogenic mineral, which is formed at high temperature and pressure. It is most often associated with ultrabasic igneous rocks. The host rock for most diamonds is kimberlite, named after the Kimberley region of South Africa.

Diamonds were first discovered in Golconda, India, and the most famous examples come from that country. Among these gems is the Hope Blue Diamond (45.52 carats), which is in the Smithsonian Museum in Washington. More than 100 million carats (20 tons) of diamonds are mined each year, mainly in Russia, Australia, South Africa, Botswana, and the Democratic Republic of the Congo. Diamond-rich deposits are found in Russia, Siberia, Venezuela, Angola, Ghana, Tanzania, etc. The largest diamonds found come from South Africa. The world-famous diamonds are the Cullinan (weighing 3,106.75 carats) found in a mine near Pretoria. The Koh-i Noor (weighing 108.83 carats) and the Orlov (weighing about 300 carats) found in central India. The Koh-i Noor diamond (108.83 carats) is part of the British Crown

Jewels. Among the most desirable diamonds in history are Tiffany (the largest yellow diamond), Hope (the famous blue diamond) and Regent.

The Regent (140.50 carats) and Sancy (55 carats) diamonds were the property of the French King Louis XIV and are now on display in the Louvre in Paris.

The value of diamonds increases proportionally to their purity and lack of impurities. Color, clarity, type, quality of cut and carat weight determine the value of a diamond. Hardness 10 on the Mohs hardness scale.

In the mineralogical exhibition collection of the Department of Natural Sciences, there is a diamond crystal from the world-famous deposit of the Kimberley region in South Africa (Fig. 2). The host rock for most diamonds is kimberlite, an ultrabasic igneous rock named after the area.



**Fig. 2.** Diamond in kimberlite, Kimberley (Africa)

Corundum,  $\text{Al}_2\text{O}_3$  crystallizes hexagonally. The crystals are columnar or plate-like.

The name of this mineral comes from the Sanskrit word *kuruvinda*, or *kurundu* as it is called in Tamil. The name was introduced into mineralogy in 1798, when it was determined that ruby and sapphire belong to the same mineral species.

Corundum is a typical allochromatic mineral. It can be colorless (leucosapphire), blue (sapphire), yellow to golden yellow (oriental topaz), purple (oriental amethyst) and red to pink (ruby). The red color of the ruby comes from the admixture of chromium, and the blue color of the sapphire is given by the admixture of bivalent iron and traces of titanium. Rubies are often decorated with the so-called optical effect, asterism due to inclusions of needle crystals, most often rutile.

It is very hard, hardness 9 on the Mohs scale and only diamond is harder than it. Density about 4.

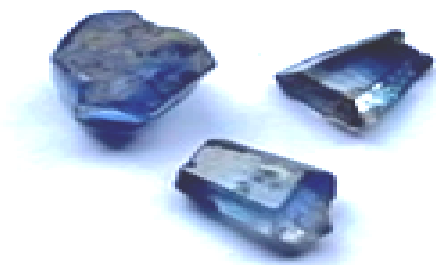
The main deposits of corundum are of magmatic origin, although corundum can also be formed by contact metamorphism. Corundum of hydrothermal origin is rare (Operta, 2009).

The largest rubies weighing up to 593.4 carats come from Burma, and the largest sapphire weighing 951 carats from India. Very beautiful examples of crystals can be found in alluvial deposits in Thailand, Burma and in many places in Sri Lanka. The most famous such areas are in the Himalayan region of Kashmir. The famous ruby weighing 167 carats from Myanmar (Burmese) is exhibited in the Natural History Museum in London. A beautiful example is the Rosser Reeves ruby exhibited in the Smithsonian Museum in Washington (USA). Famous blue sapphires include: the 405-carat St. Edward and Stuart sapphire set in the British Crown Jewels: King (392.75 carats); the Star of Asia (330 carats), a 478.68-carat sapphire (set in a Cartier brooch in 1910, sold at Christies auction in May 1991 for \$2.34 million, now owned by Sheikh Ahmed Hassan Fitaihi of Saudi Arabia (Redžepović, 2005).

Corundum is also found in large quantities in Australia. Corundum has been found in the Czech Republic, Greece, Italy, Macedonia, Turkey, Kazakhstan, and Canada. European scientists first encountered corundum in the late 18th century when crystals of the mineral were brought from China, where they were ground into powder and used as an abrasive. Smaller quantities of ruby have been found in Afghanistan, India, Pakistan, China, Montana (USA), and Norway. The palaces and temples of ancient Egypt, Greece, and Rome were a constant stage for rulers to display their power and wealth by wearing ruby or sapphire jewelry. The ancient Hindus considered ruby to be an unparalleled gem (Shoufek, 1991). It was believed that it would help the owner preserve his or her aristocratic heritage.

In Bosnia and Herzegovina, it is found as a rare and minor mineral in granites on the Motajica mountain and on the southern edge of the Krivaja-Konjuš massif in the area of the village of Vijaka near Vareš, where several localities of amphibolite rocks have been identified, some of which contain corundum varieties of amphibolite in which hornblende and plagioclase are essential components (Pamić, 1970, 1971, 1977). More detailed information on corundum in amphibolite rocks can be found in the works of Operta (2003, 2018). Sporadically or in insignificant quantities, corundum occurs as a component in the heavy fraction of sandstone in the series of red clastics of the Upper Permian in the Kulen-Vakuf area (Barić & Trubelja, 1984).

The mineralogical collection of the Department of Natural Sciences is also significant in that it contains ruby and sapphire crystals from a world-famous site in Sri Lanka (Fig. 3). The corundum crystal from Prilep in Macedonia is 45 mm long.



**Fig. 3.** Sapphire, Sri Lanka.

Beryl,  $\text{Be}_3\text{Al}_2(\text{Si}_6\text{O}_{18})$  is a silicate of beryllium and aluminum. It crystallizes in a hexagonal system of symmetry and most often has the form of prismatic crystals with small pyramids at their ends. Specimens of beryl crystals up to 5 meters long have been found. It often creates rod-like and massive aggregates.

The origin of the name is Greek. *beryllos* (the meaning of the word is unknown, but it was used for any blue-green gem, lat. *beryllus*).

Beryl comes in blue, green blue, green, yellow, yellow green, pink and red. Emerald is green, morganite is cherry red or pinkish purple, aquamarine is greenish blue to light blue, and heliodor is golden yellow. A valuable gem, it is a variety of beryl and aquamarine is used as a gemstone. Emerald is the most valuable variety of beryl, which sometimes reaches a higher price than diamond.

A hard mineral with a value between 7.5 and 8 on the Mohs hardness scale. Density 2.63 to 2.9.

Beryl is a typical mineral of granite pegmatite rocks. Beryl of gem quality is formed in the hydrothermal phase by recrystallization of beryl from a high-temperature pegmatite phase. This is how the world-famous Colombian emeralds were created.

Heliodor is identical to beryl in almost all characteristics except for its color, which comes from the presence of small amounts of other elements, most likely uranium (which gives a golden yellow color) or iron (which gives a yellowish green color). The most common cut for heliodor is oval and less often round. The teardrop cut is suitable for earrings because it best emphasizes its golden shine.

A beryl crystal weighing as much as 200 tons was mined near Picua in Brazil. World deposits are in Norway, Switzerland, Italy, Madagascar, Brazil, Ceylon, India, Australia. The largest known piece of beryl was found in Madagascar, 18 meters long, 3.5 meters in diameter and weighing almost 400 tons.

In the Grand Seraglio Museum in Istanbul (Turkey) there is an emerald of 1,400 carats, which decorated the robes of the Great Sultan.

The oldest data on beryl in Bosnia and Herzegovina come from Koch (1899, 1902). More detailed data on optical tests of beryl from this locality can be found in the work of Barić (1960). Spectrochemical tests of beryl were carried out by Ristić and colleagues (Ristić et al., 1965). Motajic beryl occurs in the form of short columnar crystals and crystalline clusters. According to Katzer (1926), in addition to colorless crystals, there are honey-yellow and bluish ones. Beryl of prismatic habit has a maximum length of about 70 and a diameter of about 50 mm (Jelić, 1976). This mineral is also mentioned in their works by Varićak (1966) and Nikolić (1962, 1963).

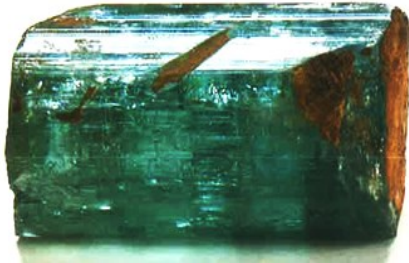
The mineralogical collection displays an emerald crystal from Russia (Fig. 4), where the largest known emerald crystals were found. An emerald crystal in granite from a significant site in Norway is also on display.



**Fig. 4.** Emerald crystal, Ural, Russia



**Fig. 5.** Emerald in granite, Minnesund, Norway



**Fig. 6.** Beryl (aquamarine), Brazil



**Fig. 7.** Beryl crystal, Motajica  
(Bosnia and Herzegovina)

The beryl specimens stored in the mineralogical collection are of various sizes, from beryl in a pegmatite vein (Arandelovac, Serbia) measuring 20 mm in length. Beryl with quartz and muscovite in a pegmatite vein from the Motajica mountain (Bosnia and Herzegovina) measuring 155 mm in length, and a beryl (aquamarine) crystal from Brazil measuring about 115 mm (Fig. 6 and Fig. 7).

Topaz,  $\text{Al}_2\text{SiO}_4(\text{F},\text{OH})_2$  crystallizes rhombically. They are usually crystals of prismatic or prismatic bipyramidal habit. Sometimes it comes in ray, massive and granular aggregates.

According to one interpretation, the name is related to the Sanskrit word *tapas*, which means embers. The reason for this name is its high gloss and yellow color. It is known that the Greeks and Romans already called this mineral topaz and topazion. Greek the word topazion refers to gems from the island of Topazos.

The natural luster makes topaz one of the most attractive gems for jewelry making. The dominant color of topaz is yellow ranging from light yellow, golden yellow to brownish yellow. Pink, blue and honey-yellow topazes have the highest value. Colorless, clear and rounded fragments from Brazilian sites are known on the market as "pingos d agoa" which means "tears" in Portuguese. Citrine is similar in color to topaz and is sometimes used as an imitation.

Hardness 8, and density 3.53 to 3.57. It is the only natural gem with a density similar to diamond.

Topaz is a typical pneumatolithic mineral that originates from acidic magmas. That is why it is found mostly in the area of granite and similar acidic rocks. It is resistant, so it is easily concentrated in deposits. Important deposits are related to

secondary deposits formed by the decomposition of rocks containing this mineral. Such a large deposit is located in the Ouro Preto region of the Brazilian state of Minas Gerais. The Ural deposits are known for their beautifully developed large crystals. In the Schneckenstein area in Germany, 485 high-quality yellow specimens were excavated in the period from 1739 to 1741, and are stored in the British Royal Treasury.

Unique examples of topaz can be seen in many mineralogical collections around the world, including topaz in the American Museum of Natural History (New York) and a perfect blue crystal from Brazil. The Mineralogical Institute in Florence (Italy) also has a pink topaz crystal. One of the most famous is probably the topaz, called Braganca, weighing 1,680 carats, which is set in the Portuguese crown, found in Brazil in 1740, and for a long time considered a diamond (Redžepović, 2005).

Topaz is most often cut in a classic oval shape that reveals its colors and brilliance. Mixed cutting is also used, i.e. a combination of different cuts, most often rectangular and partially columnar surfaces.

The mineralogical collection is also significant in that it contains crystals originating from the richest deposits in the world, such as topaz crystals from Brazil (Fig. 8) size 12 mm. The collection contains topaz crystals 23 mm long found in Milovka schist (talc schist) from Mexico. Also topaz crystals with feldspar crystals and lithium mica in coarse-grained granite from Russia as well as crystals from deposits in Germany.



**Fig. 8.** Topaz, Vilaricca, Brazil

The chemical composition of garnet can be described by the general formula  $A_3^{2+} B_2^{3+} [SiO_4]_3$  where position A is filled by divalent ions of magnesium, iron, manganese and calcium, and position B by trivalent ions of aluminum, iron and chromium.

They crystallize cubically. Crystals are usually of rhombic-dodecahedral and deltoid-icositetrahedral habit or a combination of these two forms.

The name comes from the Latin word *granum*-grain. There is an interpretation that the origin of the name is related to the fruit of the pomegranate plant, which in some countries is called garnet (lat. *Punica granatum* - pomegranate).

The color of garnets is different, depending on the chemical composition. So, for example, pyrope red, almandine brown-red, spessartine red-brown to yellow, grossular white to light green, uvarovite green and andradite light green to brown. Garnets occur in all colors of the spectrum, red like ruby, and green like emerald, but they never appear in blue.

The hardness is 6.5 to 7.5 (ugrandite 6.5 and pyrope 7.5), and the density varies from 3.6 to 4.3, depending on the chemical composition.

Garnets are formed igneously and metamorphically. The most important deposits are those that appear in various metamorphic rocks (gneisses, amphibolites, etc.), and were formed by dynamothermal metamorphism in a very wide range of PT conditions.

Garnet deposits are in Belgium, Finland, France, Macedonia, Norway, Germany, Poland, Russia, Sweden, Turkey, and in Great Britain, the USA, Brazil and India. Pyrope has been used as a gemstone since ancient times. The largest European deposits of pyrope are in the Czech Republic. It is found in greater quantities in association with diamonds, in South Africa. Almandine is found in the European Alps. Specimens of gem value are found in Sri Lanka. Gem-quality spessartine specimens come from Upper Burma, Tanzania, Sri Lanka, and Madagascar. Emerald-green specimens of grossularite were found in Tanzania in 1968, and in Kenya in 1971. In 1868, during gold panning near Nizhny Taglisk in the Urals, emerald-green specimens of andradite were found. They were called demantoite. The first specimens of uvarovite were found near Syserts in the Urals, and then in South Africa, Turkey, and Finland.

In Bosnia and Herzegovina, they most often occur in metamorphic rocks of the Bosnian serpentine zone, where they have been most thoroughly investigated. Data on garnets in metamorphic rocks of the serpentine zone can be found in the monograph by Kišpatić (1897, 1900). More detailed data on garnets from amphibole rocks can be found in the works of Pamić (1969a, 1971. and 1972c), then Pamić, Ščavničar and Međimorac (1973), and in the works of Operta and her associates (Operta, et al., 2011, 2012) where it is stated that garnets from the area of the village of Vijaka near Vareš occur in the form of crystals and porphyroblasts of garnets (pyrope and almandine) in amphibolite rocks and prehnitized plagioclases. Garnets are essential or minor components in the igneous and metamorphic rocks of the Motajica mountain and the Central Bosnian schist mountains. Garnets occur as

products of contact metamorphism south of Prozor and in the magnetite occurrence at Tovarnica near Jablanica (Nöth 1956; Cissarz 1956; Pamić 1960; Čelebić 1967).

The mineralogical display exhibits garnet crystals from the largest European deposits (from the Czech Republic and from the European Alps). A garnet crystal (rhombic dodecahedron) from Tyrol in Austria is 38 mm in diameter (Fig. 9). Garnet specimens from other world-famous and European sites are also exhibited.



**Fig. 9.** Granat crystal, Tyrol, Austria.

Important deposits of zircon,  $Zr(SiO_4)$  are in Norway, Russia, Canada, Brazil, Madagascar and Sri Lanka. In Bosnia and Herzegovina, zircon is a component of igneous, sedimentary and metamorphic rocks, as a minor mineral component. Large zircon crystals are found in pegmatites of various compositions, such as the zircon deposited in the mineralogical collection. Zircon is found in a pegmatite vein, Ural, Russia (Fig. 10).



**Fig. 10.** Zircon in a pegmatite vein, Urals, Russia

Tourmaline  $(Na,Ca)(Li, Mg,Al)_3(Al,Fe,Mn)_6(BO_3)_3(Si_6O_{18})(OH)_4$  is a complex borosilicate that crystallizes in a trigonal (hexagonal) system of symmetry. Its crystals are columnar, prismatic or needle-shaped.

Its color is white, red (rubellite), blue (indigolite), dark yellow (calcium tourmalines), colorless (ahroite), pink to red or green (elbait), dark green to black

schorl (scherl) and light brown (dravit). Dravite was named after the river Drava (in the area of Carinthia) where it was found. The beautiful blue color of indigolite is caused by the presence of iron and manganese. A red transparent tourmaline, rubellite is sold under the name Siberian ruby. Emerald-green colored species are called Brazilian emerald. Before, black schorl was also widely used in jewelry. During the Victorian era in Great Britain it was used as a mourning stone. The transition between colors can be gradual, but also sharp. For example, the end of one crystal can be green, yellow, colorless, while the other end of the crystal can be black. Such tourmalines are called moorheads, and crystals with red ends are known as turkheads. Because of its beauty and hardness, rubellite is sometimes used as a gemstone and for making ornaments. It has been known since Roman times, and in China it was valued and used to make buckles on Mandarin clothes. The redder the rubellite, the higher its value.

In addition to cabochons, the most common forms of grinding are pear and step grinding, which are most often used for most elongated crystals. The most popular way of cutting indigolite is in the form of rectangles, ovals and rounds, with the fact that a cabochon is always used if there is a possibility of emphasizing the effect of the cat's eye visible on some specimens. The most beautiful specimens were found in Brazil (Minas Gerais).

Hardness on the Mohs scale ranges from 7 to 7.5, and density is between 3.0 and 3.25. Due to its high hardness, it can only be scratched with topaz, corundum and diamond.

Tourmaline is a mineral of pneumatolitic origin. Beautifully developed crystals, transparent or of different colors, appear only in the last pegmatite phase together with quartz. It is associated with acidic igneous rocks, primarily pegmatites, granites and granitoids.

Most colorful tourmalines are found in Brazil. Other important deposits are in Slovenia, Germany, the USA, Canada, Australia, Russia (dravit), Sweden, Finland and Norway. Also important localities are in Namibia, Mozambique and Madagascar. Green specimens, similar in color to emeralds, have been found in Tanzania. In California (USA) there are beautiful and large rubellites. In the Urals there is tourmaline in numerous pegmatites, and on the island of Elba there are beautiful tourmalines near San Piero and Campoa.

Koch (1989, 1908) mentions tourmaline in the granite massif of Motajica. Koch's data is cited by Katzer (1924, 1926) and he especially points out that black tourmaline is often observed among secondary ingredients. Tourmaline was determined in sandstones from the Upper Permian red clastite series in the Kulen -

Vakuf area (Magdalenić & Šćavničar, 1973). Tourmaline is mentioned by Jurković (1954) in schists of the Central Bosnian schist mountains. Jurković (1961) determined tourmaline in the Hrmza realgar and pigment deposit near Kreševo. Marić (1927) mentions columnar crystals of tourmaline in the gabbro massif near Jablanica. Đorđević (1969) identified tourmaline-quartz rocks in the area of the Srebrenica mine.

The mineralogical display includes beautiful and large rubellite crystals about 80 mm long from significant localities such as a specimen from California (USA), and elbaite crystals from the island of Elba, Italy, which was named after the island where it was first found (Fig. 11). Among the gems on display are other varieties of tourmaline such as schorl from the Czech Republic, schorl in quartz, Seuffenberg, Austria, rubellite in lepidolite, San Diego (USA), as well as several specimens of tourmaline with muscovite and quartz in a pegmatite vein (Babuna, Macedonia).



**Fig. 11.** Tourmaline (elbaite), O. Elba, Italy

The display contains chrysoberyl,  $\text{BeAl}_2\text{O}_4$  from the Czech Republic (Maršikov) valued as a gemstone, as well as spinel,  $\text{MgAl}_2\text{O}_4$  in octahedral crystals from France. The collection also exhibits the most beautiful andalusite (chiastolite) crystals,  $\text{Al}_2\text{O}[\text{SiO}_4]$  from Spain (Andalusia), where they were first found and named after the locality. The cross-sectional diameter of the andalusite (chiastolite) crystal is about 20 mm. The largest exposed cyanite crystals,  $\text{Al}_2\text{O}[\text{SiO}_4]$  come from Switzerland, 85 mm long, and with prominent zoning of shades of blue, they are from the Czech Republic.

Quartz,  $\text{SiO}_2$ , is the most abundant mineral in the Earth's crust and its share is as much as 12%. It is formed magmatic, sedimentary and metamorphic and in the weathering crust.

The largest and most beautiful crystals of different varieties were found in Brazil (Bahia, Minas Gerais and Rio Grande do Sul). There are large quartz crystals in Switzerland, Austria, Hungary, Russia, South Africa, Mexico, USA, Canada, Japan and Madagascar. The largest amethyst geode is in Serra de Mar, measuring 10 x 5 x 3 m, weighing 35 metric tons (Redžepović, 2005). The most beautiful specimens of citrine come from Brazil and the Urals, while sometimes they can be found in Madagascar, France, Spain and Scotland. The most famous sites of soot are in the Alps, especially near St. Gotthard. The crystal, known as Grandfather, from this locality had a length of 70 cm and a weight of 130 kg.

In Bosnia and Herzegovina, quartz is among the most widespread minerals. Conrad (1870) mentions numerous quartz veins on the Radovan mountain, in the central Bosnian schist mountains. Hauer (1879) mentions quartz crystals on dolomite in the vicinity of Žepča, and Koch (1899) describes quartz crystals occurring together with beryl in pegmatite veins on the Motajica mountain. According to Varičak (1971), the localities where quartz (rock crystal, soot, morion, amethyst and citrine) occurs are: Bunarički Potok, Brusnik, Rastova Kosa, Vlaknica and Visovi. In the area of the central Bosnian slate mountains, 165 occurrences of wire quartz of the highest degree of research have been registered so far (Živanović, 1976). Wire quartz occurs in the wider areas of Turbet, Vitez, Busovača, Kačun, Gromiljak, Fojnica, Kiseljak and Kreševo. Among the varieties of quartz there are: mountain crystal, sooty and milky quartz. Quartz strings also occur in the Radalj mountain, west of Travnik, near Donji Vakuf, Jezera (Jajca), Čemernica, Bugojno and Prozor - Rama. Quartz strings are found in phyllite schists and Paleozoic sandstones of Ljubija, Stari Majdan and Stratinska. At the localities of Adamuša and Nova Litica, Katzer (1924, 1925) mentions completely clear quartz crystals. Stringy and in places crystalline quartz also occurs in the Paleozoic of eastern and southeastern Bosnia. Ramović (1957, 1963) points out the presence of quartz in the ore parageneses of Srebrenica. Quartz occurs in beautiful crystals in the area of Pala, Prača, Trnovo, Goražde and Foča, and on the left side of Čehotina, southeast of Foča. Quartz veins also occur in the vicinity of Goražde (16 occurrences of stringy quartz), Čajnič, Ustiprača, Zabork, Marenčić and Đaković (Redžepović, 2005).

The mineralogical display of the Department of Natural Sciences contains the prized and beloved varieties of quartz  $\text{SiO}_2$ , amethysts in the form of beautiful geodes from the Czech Republic (Fig. 12). as well as citrine and rose quartz crystals from the Czech Republic (Fig. 13). In the mineralogical collection, crystal druses of soot, crystals of soot and morion from the most famous site in Switzerland are exhibited in the crystal druses, individual crystals are about 60 mm in size (Fig. 14). Among these specimens are numerous samples of quartz and varieties of quartz from Bosnia and Herzegovina and an amethyst crystal about 45 mm long from Kiseljak (Bosnia and Herzegovina).



**Fig. 12.** Amethyst crystal geode, Nová Paka, Jičín (Czech Republic)



**Fig. 13.** Rose quartz, Pisek, Czech Republic



**Fig. 14.** Crystal druse of sooty quartz, Goschenen, Switzerland

The setting features prized and beloved agates from the world's richest agate deposits in Brazil (Fig.15). The best quality agates come from Brazil, especially from the state of Rio Grande do Sul; Uruguay, India, China, the Urals, Madagascar and the USA. Agates found in Siberia, Mongolia, Morocco and Iceland are of lower quality.

The samples are polished and on the polished sections the agate reveals its beauty, so you can see several different colors due to the content of impurities. Iron oxides and hydroxides can color agate yellow, brown and red or black (Fig.15), chromium gives a green color as well as copper which also gives a blue color, and manganese a pink color. Sometimes the color of agate is very intense and such specimens are the most valued among collectors. In Bosnia and Herzegovina, agate has so far been found in Zenica and Sarajevo (Bentbaša along the river Miljacka).



**Fig. 15.** Agate, Brazil

In the world, the most famous deposits of **opal**,  $\text{SiO}_2 \times n\text{H}_2\text{O}$  are in Australia. It is found in Italy, Slovakia, Russia, Ukraine, Turkey, Mexico, Brazil, USA, Egypt, New Zealand, etc. At the beginning of the 20th century, Australia took the lead in the mining of precious opal, and today accounts for over 95% of the entire world production of this precious stone.

The mineral is poorly explored in Bosnia and Herzegovina. In northeastern Bosnia, near the town of Lopara, opal was found in red-brown to brown fragments up to 30 cm in color (Barić & Trubelja, 1984). At that site, opal occurs with siderite and is usually light gray to snow white (Barić, 1966). Ramović (1957) and Rakić (1962) mention opal in the Srebrenica lead-zinc mine. Radimski (1889) mentions opal on the Ljubić mountain, south of Prnjavor and in the area of Maglaj.

In addition to numerous opal samples displayed in the exhibition and stored in the scientific depot, there are precious opals,  $\text{SiO}_2 \times n\text{H}_2\text{O}$  from the world's most famous opal deposit in Australia (Fig.16). The collection also contains milky opal from the Czech Republic, catalpa and hyalite in the form of a fissure coating of eruptive rocks also from the Czech Republic. The collection also exhibits specimens of opal from Bosnia and Herzegovina from Derventa, Tešanj, Žepče, Maglaj and Bugojno.



**Fig. 16.** Precious opal, Australia

Vesuvian,  $\text{Ca}_{19}(\text{Al}, \text{Mg}, \text{Fe}, \text{Ti})_{13}(\text{SiO}_4)_{10}(\text{Si}_2\text{O}_7)_4(\text{O}, \text{OH})_{10}$  from Romania (Cziklova) also stands out with its color and crystal form. The collection exhibits transparent and attractively colored apatite crystals,  $\text{Ca}_5(\text{PO}_4)_3(\text{F}, \text{Cl}, \text{OH})$  of blue-green color and purple crystals of elongated prismatic habit in micaceous schist from Canada and the Czech Republic.

Lazurite, or lapis lazuli,  $(\text{Na,Ca})_{7-8}(\text{AlSi})_{12}(\text{O,S})_{24}[(\text{SO}_4)(\text{Cl,OH})_2]$  is one of the oldest minerals used in jewelry. It was brought to Europe by Alexander the Great. It was originally called ultramarine. It was much more than a gem, it was a symbol of status and power. The ancient Greeks and Romans called it sapphire. Ancient civilizations, from Egypt to Mesopotamia, valued lapis so highly that it was reserved for royalty, priests, and deities. Tutankhamun's mask was made of lapis lazuli and gold. It was ground into a pigment to produce the blue color seen in Renaissance art. It is known as blue gold, a shimmering thread that connected empires, spirituality, and art. The largest deposits are found in Afghanistan, the United States, Canada, Brazil, Chile, and Burma. Lapis lazuli or lapis lazuli is mentioned in the works of Evliya Çelebi. Later, in the professional literature, laziness is not mentioned anywhere in the territory of Bosnia and Herzegovina.

The mineralogical exhibition display contains a polished sample of azure blue laziness from Mont Blanc, France.

Polished malachite samples show meandering layers of malachite,  $\text{Cu}_2(\text{OH})_2\text{CO}_3$  that are concentric in places and of different composition. The exposed cut and polished specimens from Russia (Siberia) look beautiful because of the very pronounced green color in different shades from light green to dark green, which is why it is one of the favorite semi-precious stones. Malachite is too sensitive for widespread use in jewelry making. It is most often used as a decorative stone.

## CONCLUSION

The rich mineralogical collection is important as a tourist offer because it contains samples of minerals from Bosnia and Herzegovina and from many parts of the world, and some of them come from mines that are no longer in use. The fact that the collection is significant as a tourist offer of the Museum is also evidenced by the fact that it contains over 60 specimens of meteorites, among which are world-famous meteorites such as the famous iron meteorites Canon Diablo and Sikhote Alin and the stone meteorites L'Aigle and Stonarov. The collection also includes the stone meteorite Zavid (fallen near Zvornik), which stands out for its weight (over 60 kg) and the iron meteorite Ozren (found on Mount Ozren). Both of these meteorites are included in the world catalog of meteorites that fell or were found on the territory of Bosnia and Herzegovina.

The role of the National Museum in the promotion of tourism is significant because the mineralogical collection of the Department of Natural Sciences contains precious and semi-precious stones from world-famous sites, such as a diamond from the Kimberley region in South Africa, ruby and sapphire crystals from a world-famous site in Sri Lanka, an emerald from Russia, where the largest known emerald crystal was found.

The collection exhibits garnet crystals from the largest European deposits (in the Czech Republic and the European Alps) as well as crystals from the richest deposits in the world, such as topaz crystals from Brazil, beautiful and large rubellite crystals from California (USA) and tourmaline crystals found on the island of Elba (Italy). The setting features prized and beloved amethysts in the form of beautiful geodes from the Czech Republic and agates from the world's richest agate deposits in Brazil.

The audit included 255 specimens of precious and semi-precious stones from the exhibition mineralogical collection of the Department of Natural Sciences in the National Museum of Bosnia and Herzegovina.

The most valuable precious and semi-precious stones were analyzed in detail: diamond, varieties of corundum, beryl, topaz, varieties of garnet, tourmaline, zircon, opal and varieties of quartz (amethyst, sooty quartz, morion, citrine, aventurine, rose quartz, plasma and agate).

A total of 255 samples of precious and semi-precious stones were reviewed in the exhibition of the National Museum, including specimens from world-famous deposits. This paper presents only some of the more valuable gems and semi-precious stones originating from the world's most famous and significant deposits. All of these specimens were measured (weight and size), photographed, then

entered into a scientific database and checked in the inventory book. The database contains detailed information about each mineral (inventory number, physical properties, locality, and others).

The pictures show some of the revised minerals and their varieties that belong to precious and semi-precious stones. The contents of the database, i.e. the data listed in the database, can be seen in the appendix. Among these samples are the most significant and most famous specimens of precious and semi-precious stones from world-famous sites and from the largest European deposits.

Revised samples from the exhibition and scientific collection of the National Museum will be presented in the exhibition under the title "Precious and semi-precious stones in the mineralogical collection of the National Museum of Bosnia and Herzegovina". The catalog is currently being prepared, along with a planned temporary exhibition. Photos of most of the samples will be shown in the catalog, with detailed information about the presented precious and semi-precious stones with the aim of enriching the tourist offer of this institution and increasing the interest of both foreign and domestic tourists.

Previous geological research in the area of Bosnia and Herzegovina has indicated significant occurrences of precious and semi-precious stones. However, in no period of obtaining and using the mineral wealth of Bosnia and Herzegovina have dedicated researches of these occurrences and deposits been carried out with the aim of producing jewelry raw materials. Such research should be planned in accordance with world knowledge and experience and would be a reliable support for the development of the precious and semi-precious stone processing industry and for the development of jewelry in Bosnia and Herzegovina.

## REFERENCES

1. Atanacković, M. Mudrenović, V. & Gaković, M. (1968). Stratigrafija i tektonika područja Borovice kod Vareša, Geološki glasnik 12, Sarajevo.
2. Babajić, A. (2010). Korelacija strukturno-teksturnih i geohemijskih karakteristika dijabaza okoline Banovića, magistarski rad, RGGF Tuzla.
3. Babajić, E. (2009). Petrološko-geohemijska i geotektonska obilježja mafitnih magmatskih stijena krivajsko-konjuškog ofiolitnog kompleksa, doktorska disertacija, RGGF Tuzla.
4. Barić, Lj. (1960). Beril iz Motajice planine-Acta Geologica, II, 71-82. JAZU, Zagreb.
5. Barić, Lj. (1966). Searlesit von Lopare in Nordostbosnien. Ber.d. deutsch. Gesellschaf fürgeologische wissenschaften, B.mineralogie und Lagerstättenforschung, Bd.11,H.4,407-421, Berlin.
6. Barić, Lj. (1969a). Korund aus der Umgebung des Dorfes Vijaka in Zentral Bosnien. Min, petr. Mus. Univ., Mittel. 2., Zagreb.
7. Barić, Lj. (1969b). Hijalofan iz Zagrlskoga potoka nedaleko od Busovače u srednjoj Bosni- Glasnik Zemaljskog muzeja, VIII, 5-34, Sarajevo.
8. Barić, Lj., & Trubelja, F. (1984). Minerali Bosne i Hercegovine, knjiga II- Nesilikati, Svjetlost, OOUR Zavod za udžbenike i nastavna sredstva, Sarajevo.
9. Bauer, J., & Bouska, J. (1989). Precious Semiprecious stones. Chartwell Books Inc.New Yersey. USA.
10. Cissarz, A. (1956). Uber ein ungewöhnliches Magnetitvorkommen am kontakt des Gabbromassivs von Jablanica in der Herzegovina. Vesnik Zavoda za geol. i geofiz. Istraživanja NR Srbije, knj. XII, 201-221-Beograd.
11. Conrad, A. (1870). Die Mineralschätze in Bosnien. Oesterr. Zeitschrift für Bergund Hüttenwesen, XVIII Jahrgang, No 20, 137-141, Wien.
12. Đorđević, D. (1969). Turmalinsko-kvarcne stene područja rudnika Srebrenica. Geol. Glasnik 13, 217-223. Sarajevo.
13. Đorđević, D. (1969a). Mineraloške i genetske karakteristike talkita u okolini Mušića kod Bosanskog Petrovog Sela. Geol. Glasnik 13, 301-310. Sarajevo.
14. Hauer,G. (1879). Miemit von Žepče in Bosnien, Verhandl. d. geol. Reichsanst.,6,121-123, Wien.
15. Jelić, M. (1976). Fluorit (u knjizi: Mineralne sirovine Bosne i Hercegovine, prvi tom,knj. II, Ležišta nemetala, 243-244)."Geoinženjering" Sarajevo. Sarajevo.
16. Jurković, I.(1954a). Augitsko-labradoritski andezit kod Orašina jugoistočno od Bakovića (Bosna). Geol. Vjesnik V/VII (za 1951-1953),111-126. Zagreb.

17. Jurković, I.(1961). Realgar i auripigment u rudnim ležištima srednjebosanskog rudogorja. Geol. Glasnik5,199-240.Sarajevo.
18. Katzer, F. (1906). Istorijsko razvijanje i današnje stanje geoloških proučavanja Bosne i Hercegovine,Glas.Zem.Muzeja BiH 18, 37–68.
19. Katzer, F. (1920). Minerali Bosne i Hercegovine. Klasa elemenata. Glasn. Zemaljskog muzeja u Bosni i Hercegovini.XXXII.str. 227-244.
20. Katzer, F. (1924). Geologie Bosniens und der Hercegovina. Erster Band, I. Halfe, 480 p. Sarajevo.
21. Katzer, F. (1925). Geologie Bosniens und der Hercegovina. Erster Band, II. Halfe, p 481-560. Sarajevo.
22. Kišpatić, M. (1897). Kristalinsko kamenje serpentinske zone u Bosni. Rad Jugosl. Akad. znan Umj.,133,95–231.
23. Kišpatić, M. (1900). Die krystallinischen Gesteine der bosnischen Serpentinzone.-Wissenschaft. Mitt. Aus Bosnien und Herzegovina, VII, 377-484, Wien.
24. Koch, F. (1899). Berilj iz Motajice planine u Bosni. Glasnik Zem. muzeja sv.XI, 1-12. Sarajevo.
25. Koch, F. (1902). Ein Beryll aus dem Gebirge Motajica planina in Bosnien. Wissenschaft. Mitt., VIII, 427-431. Wien.
26. Koch, F. (1908). Prilog petrografskom poznavanju Motajice planine u Bosni. Glasnik Zem. muzeja sv. XX, 1-22, Sarajevo.
27. Magdalenić, Z., & Šćavničar, B. (1973). Autigeni turmalin u sedimentnim stijenama sjeverne Dalmacije i jugozapadne Bosne. Geol. vjesnik 26 (1972), 113-122. Zagreb.
28. Marić,L. (1927). Masiv gabra kod Jablanice. Vijesti geol. zavoda Ii (1927/1928), 1-65, Zagreb.
29. Marić, L. (1969). Prilog geoloških nauka razvoju naše zemlje posle oslobođenja. Rudarstvo, geologija i metalurgija, XX, 1, 67-73, Beograd.
30. Nikolić, D. (1962). Berili Jugoslavije V. Savjetovanje geologa Jugoslavije, sv. II, 11-12. Beograd.
31. Nikolić, D. (1963). Pegmatiti FNRJ. Doktorska disertacija. Beograd.
32. Nöth, L. (1956). Uber den heutigen Stand. Unserer Kenntnis der Eisenerzlagerstätten Jugoslawiens. I. Jug. Geol. Kongres, 219-230. Ljubljana.
33. Operta, M., Pamić, J., Balen, D. & Tropper, P. (2003). Corundum-bearing amphibolites from metamorphic sole of the Krivaja – Konjuh ultramafic massif Dinaride Zone, Bosnia, Springer LINK Mineralogy and Petrology, 77(3-4) 287-295.
34. Operta, M. (2009). Mineralogija (knjiga I), Udžbenik Univerziteta u Zenici, Zenica.
35. Operta, M. (2009). Mineralogija (knjiga II), Udžbenik Univerziteta u Zenici, Zenica.

36. Operta, M. Hyseni, S., Balen, D., Salihović, S. & Durmishaj, B. (2011). Garnet group minerals from the amphibolite facies metamorphic rocks of Krivaja-Konjuh ultramafic massif in Bosnia and Herzegovina. *ARPN Journal of Engineering and Applied Sciences (JEAS)*, Vol. 6. ISSN 1819-6608.
37. Operta, M., & Hyseni, S. (2012). Krivaja-Konjuh Ophiolite Complex in Bosnia and Herzegovina Addition to Study on Mineral Composition of Metamorphic Rocks, *IJET, International Journal of Engineering & Technology*, Volume 2, No.4, p 653-663. ISSN 2049-3444.
38. Operta, M., Nuić, I. & Sivac, A.(2018). Prilog poznavanju minerala Bosne i Hercegovine. *Acta Geographica et Herzegovina* 10; 71-83. Sarajevo.
39. Operta, M. (2018). Results of corundum testing in the amphibolite rocks of the southern rim of the Krivaja-Konjuh ultramafic massif (Bosnia and Herzegovina). *II International Scientific and Vocational Studies Congress (Bilmes 2018)*, pp 986-994. Turska.
40. Pamić, J. (1960). Kontaktnometamorfne pojave u trijaskim sedimentima južno od Prozora (Bosna i Hercegovina) . *Geol. Vjesnik* 13 (za 1959), 197-212. Zagreb.
41. Pamić, J. (1960a). Osnovne karakteristike trijaskih magmatita okoline Kalinovika. *Simp. o problemima alpiskog inicijalnog magmatizma, Ref. 7b*, 1-10. Ilidza-Vareš.
42. Pamić, J. (1969a). Ultramafitsko – amfibolitska masa Skatavice u Ofiolitnoj zoni Dinarida (Bosna). *Glasnik Zemaljskog muzeja BiH*, 8, 35 – 45.
43. Pamić, J. (1970a). Osnovne petrološke karakteristike kromitskog područja Dobošnice u Bosni. *Geol. glas.* 14, 135-148.
44. Pamić, J., & Kapeler, I. (1971). Korundski amfiboliti na južnom obodu krivajsko-konjuškog ultramafitskog masiva. *Geol. anal. Balk. Poluostr.*, 35, 399-408.
45. Pamić, J. Šćavničar, S. & Medjimorec, S. (1973). Mineral Assemblages of Amphibolites Associated with Alpine – Type Ultramafics in the Dinaride Associated with Alpine – Type Ultramafics in the Dinaride Ophiolite Zone (Yugoslavia), *Journal Petrology*, Vol.14, pp. 133 –157.
46. Pamić, J., Sunarić-Pamić, O., Olujić, J. & Antić, R. (1977). Petrografija i petrologija krivajsko-konjuškog ofiolitskog kompleksa i njegove osnovne geološke karakteristike. *Acta. Geol.*, 9, 39-135.
47. Radimski, V. (1889). Serpentine Bosne i njihovi utvori (uklopci) osobito istiva (stiva). *Glasnik Zemaljskog muzeja u BiH*, sv.1, 88-92, Sarajevo.
48. Ramović, M. (1957). Pregled nalazišta minerala cinka i olova u Bosni i Hercegovini, *Geol. glasnik* 3,9-123, Sarajevo.
49. Ramović, M. (1963). Rudne parageneze u oblasti Srebrenice (istočna Bosna), *Geol. glasnik, posebna izdanja, knj.I,1-96*, Sarajevo.

49. Redžepović, R. (2005). Drago i poludrago kamenje, Udžbenik Univerziteta u Tuzli.
50. Ristić, S., Antić-Jovanović, A. & Jeremić, M. (1965). Sadržaj alkalnih metala u nekim našim berilima, uz opšti osvrt na spektrohemijsku i geohemijsku ovog minerala, I simpoz. iz geohemije (18-20.jan.), 409-429, Beograd.
51. Slovenec, D., & Bermanec, V. (2006). Sistematska mineralogija-mineralogija silikata, udžbenik Sveučilišta u Zagrebu.
52. Šoufek, M. (1991). Svijet minerala, školska knjiga, Zagreb.
53. Trubelja, F., & Barić, Lj. (1979). Minerali Bosne i Hercegovine, knjiga I-silikati, Zemaljski muzej BiH, Sarajevo.
54. Varićak, D. (1966). Petrološka studija motajičkog granitskog masiva. Geol. glasnik, knj. IX (posebna izdanja), 1-170. Sarajevo.
55. Varićak, D. (1971). Kristalni kvarc u Bosni i Hercegovini. Geol.glasnik 15, 163-167, Sarajevo.
56. Vakanjac, B. (1979). O juvelirskim i ukrasnim mineralnim sirovinama, Rud., geol. i metal., br.10, Univerzitet u Beogradu, Beograd.
57. Zebec, V. (1987/88). Srastanje kristala hijalofana iz Zagrađe kod Busovače u Bosni. Glasnik prirodnjačkog muzeja, ser. A, knjiga 42/43, str.193-208, Beograd.
58. Zagorščak, D. (1985). Uz izložbu "Opal" u Mineraloško-petrografskom muzeju u Zagreb. Mineraloško-petrografski muzej u Zagrebu.
59. Živanović, M. (1976). Žični kvarc u ( u knjizi Mineralne sirovine Bosne i Hercegovine, prvi tom, knj.II, Ležišta nemetala, 244-257), "Geoinženjering" Sarajevo, Sarajevo.

# CLIMATE CHANGE, CULTURAL HERITAGE AND THE PLANNING OF SUSTAINABLE TOURISM: THE CASE OF STEĆCI IN SARAJEVO CANTON

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DOI: 10.35666/25662880.2025.11.99

UDC: 551.583:338.483.12(497.6 KS)

**Abstract:** The long-term monitoring of climate in Sarajevo Canton, primarily based on temperature and precipitation data from the Sarajevo–Bjelave meteorological station (1888–2024), provides a solid foundation for assessing climate variability and change. While the overall trend reflects gradual warming and relatively stable annual precipitation, alterations in seasonal patterns have contributed to an increased occurrence of floods, droughts, landslides and wildfires. These processes threaten not only the natural environment but also the preservation of cultural heritage, particularly necropolises of stećci, which represent an integral component of the Canton’s historical landscape. As these medieval monuments are recognized as a unique cultural asset and a key driver for the development of special-interest tourism, their exposure to climate impacts directly influences long-term strategies for sustainable tourism. By integrating spatial models of climate-related hazards with the distribution of stećci, this research enhances understanding of how climate change affects both cultural heritage and tourism development. It underlines the importance of adaptive spatial planning that reconciles heritage conservation with the sustainable use of cultural resources.

**Keywords:** climate change, stećci, sustainable tourism, cultural heritage, Sarajevo Canton

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## INTRODUCTION

Climate is defined as the average state of the atmosphere at a given location over a specific period of time (considering both average and extreme deviations). Climate monitoring is usually based on series of climate data covering a 30-year time span (Drešković, N., Hrelja, E., 2025c; Drešković, N., 2011; Drešković, N., 2003; Šegota, T., Filipčić, A., 1996). The heterogeneity of the Earth's surface relief and the extremely high complexity of general atmospheric circulation are the main reasons for the existence of significant differences between the climates of individual parts of the world.

This situation is expressed to such an extent that, theoretically speaking, it can be said that “almost every square kilometer of the Earth's surface has its own climate” (Drešković, N., 2011; Šegota, T., 1996). Earth's climate has been changing since the formation of the planet approximately 4.5 billion years ago, influenced by natural and social factors with varying intensities (Popović, D., Vuković, A., 2019). During this long period, the climate oscillated between warm periods and ice ages. Such cycles have always lasted tens of thousands or even millions of years; however, over the last 150 years, as a result of intensive industrialization, temperatures have been rising faster than ever before. The Intergovernmental Panel on Climate Change (IPCC) defines climate change as “any change in climate over time, whether due to natural variability or as a result of human activity.” The United Nations define climate change as long-term changes in temperatures and weather patterns. The recent increase in temperature is particularly pronounced in the Northern Hemisphere and can be attributed with high confidence to human activities.

Human influence on climate is manifested through various forms of activities and actions. This includes the clearing of forested areas (deforestation) and the expansion of agricultural and urbanized land. Through the consumption of fossil fuels (in energy production, transport, agriculture, etc.), humans contribute to increasing concentrations of carbon dioxide (CO<sub>2</sub>) and other gases in the atmosphere, thereby enhancing the greenhouse effect and consequently global warming. Among the most important gases naturally present in the atmosphere that absorb long-wave terrestrial radiation and are therefore referred to as greenhouse gases are water vapor and carbon dioxide (CO<sub>2</sub>), followed by methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O) and ozone (O<sub>3</sub>). Despite defined international obligations, the concentration of carbon dioxide (CO<sub>2</sub>) in the atmosphere continues to rise and, according to World Meteorological Organization data, reached a record level in 2019 (almost 150% higher than in 1750) (Hrelja, E., Drešković, N., 2025). The

main consequence of climate change is an increase in the Earth's global temperature.

According to meteorological measurements, temperatures have increased by 1.1 °C compared to the pre-industrial period. There are certain regional differences in temperature increase; thus, air temperatures in Europe have risen even more (2.12–2.19 °C) compared to the global average for the same period.

Furthermore, according to climate change scenarios, it can be stated that without drastic reductions in global greenhouse gas emissions, the 2 °C threshold will be exceeded before 2050 (Hrelja, E., Drešković, N., 2025). During the period of meteorological monitoring at weather stations (for the analyzed time series of 136 years), Bosnia and Herzegovina has recorded an increase in air temperature slightly higher than the global average and slightly lower than the European average (Drešković, Hrelja, 2025a).

Climate change has a significant impact on natural processes, social and economic activities (including impacts on cultural and historical heritage—specifically, medieval tombstones known as Stećci), with pronounced regional differences. Regional differences in climate change impacts depend on changes in basic climate elements as well as other physical-geographical and socio-geographical characteristics of an area. Accordingly, in the context of climate change and its effects, regions are distinguished by reduced summer sea ice cover and permafrost thawing (Arctic); reduced snow cover, decreased ice cover on lakes and rivers and increased winter and spring river discharge (Northern Europe); increased magnitude and frequency of floods (Northwestern Europe); high temperatures and droughts (Central and Eastern Europe); reduced precipitation and rising temperatures accompanied by forest fires (Mediterranean region); fewer days with snow and reduced snow amounts (mountain areas); and urban areas characterized by high temperatures, air and water pollution and increasingly frequent floods. In line with regional characteristics of climate change effects, Bosnia and Herzegovina records rising temperatures and a slight (almost uniform) increase in precipitation. The negative effects of climate change are particularly intense in areas that are naturally predisposed (due to geological structure, relief, climatic, hydrographic, pedological and vegetation characteristics) or anthropogenically predisposed (Drešković, Hrelja, 2025b).

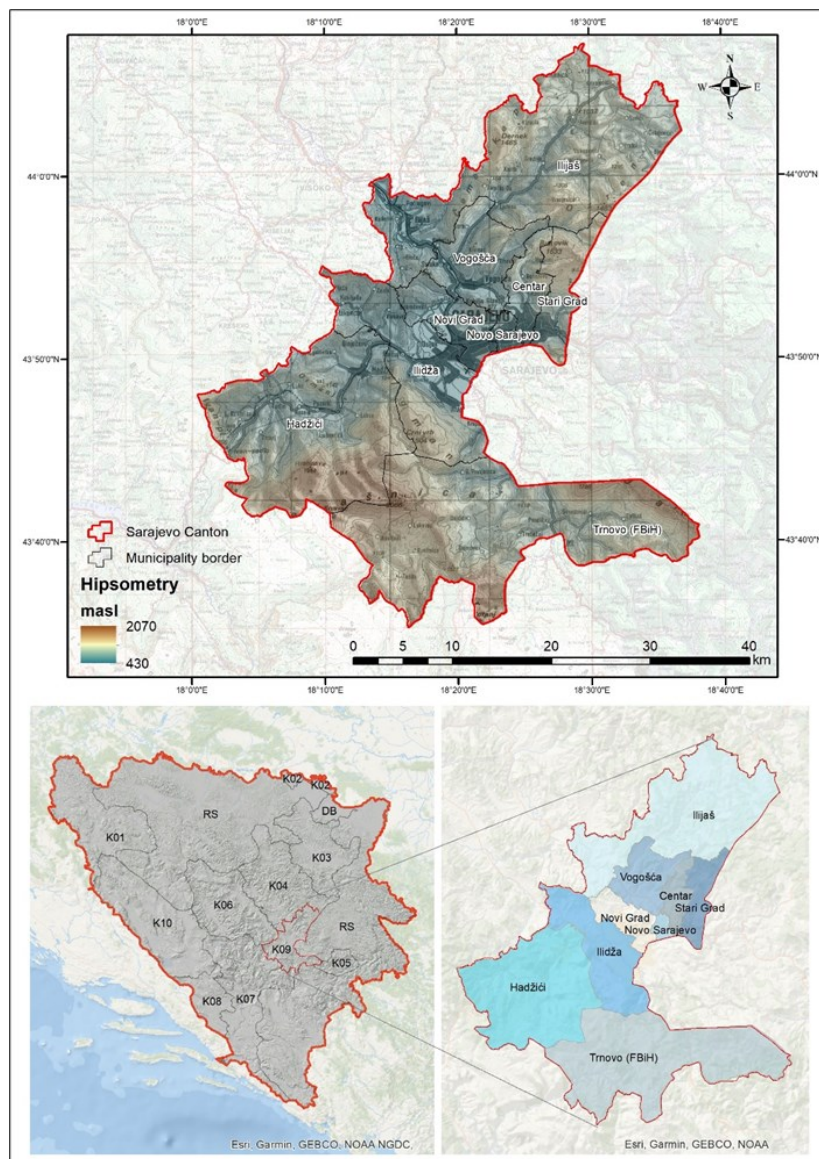
## STUDY AREA

Sarajevo Canton is located in the central part of Bosnia and Herzegovina and represents the main administrative, functional and transport core of the country. It covers 1,276.9 km<sup>2</sup> and includes nine municipalities (Stari Grad, Centar, Novo Sarajevo, Novi Grad, Ilidža, Hadžići, Vogošća, Ilijaš and Trnovo), with Sarajevo City comprising the four central municipalities. According to the final results of the 2013 Census, Sarajevo Canton had a total population of 413,593 inhabitants, making it the most demographically concentrated canton in the Federation of Bosnia and Herzegovina (Federalni zavod za statistiku Bosne i Hercegovine, 2016). The canton's pronounced vertical dissection is reflected in an average elevation of about 1,000 m, ranging from approximately 430 - 480 m in the western lowlands to 2,066 m at the highest mountain peaks (Bjelašnica) in the southwest. This marked hypsometric gradient is essential for interpreting spatial contrasts in climate, ecosystems and land use, which, in turn, frame both exposure and sensitivity of outdoor cultural heritage sites (including stećci) and the seasonal patterning of tourism demand.

The geological structure of Sarajevo Canton is complex, shaped by tectonic processes typical of the Dinarides. Mesozoic formations, particularly carbonate rocks, are widespread, while Quaternary deposits dominate valley floors and major fluvial corridors (Ekonomski institut Sarajevo, 2024). Carbonate lithology is especially relevant for stećci, which are predominantly carved from limestone, making them inherently sensitive to weathering processes. These processes are further intensified by climate variability, notably freeze-thaw cycling, changing moisture regimes and pollution-related chemical alteration, particularly in urban and industrial basins. In this context, lithological characteristics define a baseline level of material vulnerability that must be interpreted in conjunction with climate signals, environmental pressures and site-specific management practices, as emphasized in UNESCO's approach to climate change impacts on World Heritage properties (UNESCO World Heritage Committee, 2018).

Geomorphologically, the canton consists of the Sarajevo intramontane basin (Sarajevo Polje and the Sarajevo Valley), surrounded by mountainous rims - Bjelašnica and Igman to the southwest, Trebević to the southeast and east and a lower mountain belt to the northeast. This basin-rim structure generates pronounced local contrasts in exposure, accessibility and microclimatic conditions. In particular, the enclosed valley topography is directly linked to frequent temperature inversions and winter stagnation episodes, which suppress air circulation and promote the accumulation of pollutants and moisture near the ground surface (Mašić et al.,

2016). These conditions shape both environmental stressors (air pollution, moisture retention) and visitor comfort, factors that can influence the attractiveness of tourism and long-term preservation of cultural landscapes and open-air heritage assets.



**Fig. 1.** Hypsometry of Sarajevo Canton with municipal boundaries, illustrating the elevation gradient from the Sarajevo Valley to the surrounding mountain areas and the basin-rim relief structure.

*Source:* Authors' own elaboration based on GIS analysis using Esri basemaps, topographic maps (Military Geographical Institute, Belgrade, 1984), and the GIS Centre geodatabase (University of Sarajevo – Faculty of Science)

Most of Sarajevo Canton is characterized by a temperate humid climate (Cfb), while higher elevations transition towards colder snow-forest and Dfb climatic conditions, reflecting pronounced altitudinal differentiation typical of the central Dinarides (Drešković, 2011). According to long-term observations at the Sarajevo-Bjelave meteorological station (1888–2024), the average annual air temperature is 9.8°C, while the average total annual precipitation amounts to 918.8 mm. Over this period, air temperature increased by 1.7°C, accompanied by a decrease of approximately 20 mm in total annual precipitation, indicating a clear warming trend (Drešković, Hrelja, 2025a).

Long instrumental climate series from Sarajevo provides a strong basis for analyzing climate fluctuations and long-term trends in temperature and precipitation regimes. These climatic trends are relevant for assessing cumulative stress on exposed stone heritage. At the city-basin scale, temperature inversions represent a defining microclimatic feature of the Sarajevo Valley, strongly influencing humidity conditions and the accumulation of air pollutants (Mašić et al., 2016; Sivac, 2022). These processes are particularly important for surface soiling and chemically driven weathering pathways on carbonate stone. Taken together, these climatic realities are directly relevant for stećci conservation and tourism planning, as they influence seasonality, outdoor thermal comfort and site-specific risk profiles related to visitor access and maintenance, including extreme precipitation events, heat waves and freeze-thaw cycles.

Biogeographically, Sarajevo Canton belongs to the Dinaric mountain system and is characterized by forest ecosystems with pronounced altitudinal zonation and high habitat diversity (Đug & Drešković, 2012). Forests and forest land cover approximately 83,000 ha, or about 65% of the cantonal territory, forming an important natural matrix within which many stećci sites are embedded. The canton belongs to the Black Sea drainage basin and is drained by the Bosna River and its main tributaries - Miljacka, Željeznica and Zujevina, which structure settlement patterns and accessibility corridors.

Protected areas such as Bijambare, Trebević, Skakavac, Bentbaša and Vrelo Bosne represent the basis of nature-based tourism and provide relevant planning and governance frameworks where cultural heritage and conservation objectives intersect (Đug & Drešković, 2012). Recent planning practice increasingly applies GIS-based spatial analysis to support sustainable tourism and protected-area management in Sarajevo Canton, an approach that can be extended to stećci sites to better manage visitation, accessibility and climate-related vulnerability (Sivac et al., 2023).

Sarajevo Canton represents the most demographically concentrated area in Bosnia and Herzegovina, characterized by a dense urban core and a pronounced concentration of population, services and infrastructure within the Sarajevo metropolitan zone. The functional dominance of the capital region strongly shapes tourism flows, accommodation capacity and market accessibility, reinforcing Sarajevo's role as the primary tourism gateway in the country. Tourism indicators for Sarajevo Canton demonstrate a strong post-pandemic growth trajectory.

Tourist arrivals increased from 565,139 in 2022 to 716,293 in 2023, reaching 806,597 arrivals in 2024, while overnight stays rose from 1,185,115 in 2022 to 1,432,133 in 2023 and 1,545,491 in 2024, confirming Sarajevo's position as one of the leading urban tourism destinations in the country (Federalni zavod za statistiku Federacije Bosne i Hercegovine, 2025). This centrality can be strategically leveraged for the valorization of stećci through thematic routes, interpretative frameworks and day-trip visits, provided that conservation constraints and climate-related risks are explicitly integrated into planning and management processes (UNESCO World Heritage Committee, 2018). Recent geospatial analyses of tourism development in Sarajevo emphasize the need for more coherent planning instruments, data-driven spatial monitoring and product diversification, approaches that are directly applicable to cultural heritage tourism development under conditions of increasing climate stress (Sivac et al., 2023).

The canton's accessibility is structured by a multi-level road network and by the Sarajevo International Airport, which links Sarajevo to regional and selected European hubs. Internal mobility is supported by urban public transport and by mountain access corridors to Igman-Bjelašnica and Trebević.

For stećci tourism, this transport configuration creates opportunities for integrating sites into short-stay and excursion products; however, it also implies that climate-related disruptions (heavy precipitation, winter icing, heat stress) and urban environmental conditions, particularly recurrent winter smog episodes associated with temperature inversions, can affect both visitor experience and operational logistics for site management, as evidenced by recent air-pollution events in Sarajevo (Reuters, 2024).

As a result of long-term settlement processes, Bosnia and Herzegovina possesses an exceptionally rich cultural-historical heritage, among which stećci - medieval tombstones - hold particular significance. Of an estimated 70,000–100,000 stećci, around 60,000 are located within Bosnia and Herzegovina across approximately 3,300 sites. Within Sarajevo Canton, 1,995 stećci have been digitized and analyzed

in the framework of this research, providing an empirical basis for spatial and climate-related assessment. Stećci, as climate-exposed, open-air stone monuments, represent not only symbols of local identity but also an essential element of the tourism offer, contributing to the development of cultural and sustainable tourism within Sarajevo Canton. Within the Horizon Europe STECCI project research agenda, stećci are approached as climate-exposed, open-air stone monuments affected by interacting hazards, including changing climate extremes, environmental pollution and anthropogenic pressures (UNESCO World Heritage Committee, 2018; STECCI Project, 2023).

In Sarajevo Canton, the combined effect of mountain-basin topography and pronounced topo climatic variability, carbonate lithology and high tourism accessibility creates a particularly relevant setting for examining how climate change reshapes both conservation priorities and tourism valorization pathways. Consequently, the canton provides a representative case for linking (i) regional climate signals and local microclimatic specificity, (ii) stone-material sensitivity and site exposure and (iii) tourism planning instruments, especially GIS-based spatial analysis, aimed at balancing heritage protection with sustainable destination development (Hrelja et al., 2021; Sivac et al., 2023).

## **METHODOLOGY**

For the purpose of analyzing climate change, cultural heritage (stećci) and sustainable tourism planning in the Sarajevo Canton, several methods were applied. Specifically, general scientific methods (spatial analysis methods, geostatistical methods), GIS-based methods (digitalization of the spatial distribution of stećci, spatial analysis of factors relevant to flood-prone areas, multicriteria analyses and flood risk modeling), as well as field observation methods (validation of the results obtained through desk-based research) were used. The flood risk model and its impact on the cultural and historical heritage (stećci) was implemented through three phases:

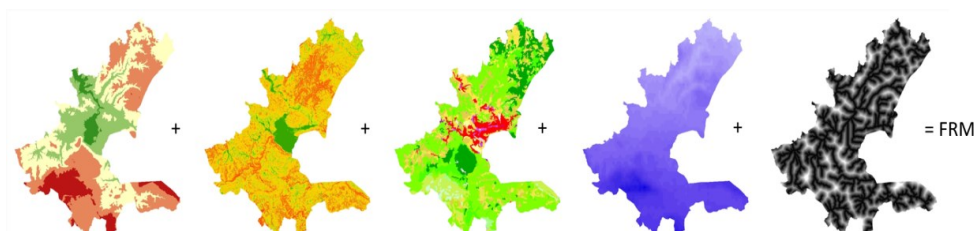
### ***Phase 1:***

Collection of all necessary spatial data (climatic, geomorphological, hydrological, land cover and the spatial distribution of stećci), followed by geoprocessing, digitization and validation of the data.

### ***Phase 2:***

Multi-criteria analysis of the factors influencing flood occurrence.

Flood Risk Map (FRM) = Elevation + Slope + Land Cover + Precipitation + Proximity to Streams/Channels.



**Fig. 2.** Multicriteria analysis methodology for flood risk mapping

*Source:* Authors' own elaboration based on GIS analysis using spatial data from the GIS Centre geodatabase (Department of Geography, University of Sarajevo – Faculty of Science) and CORINE Land Cover 2018 (European Environment Agency, Copernicus Land Monitoring Service).

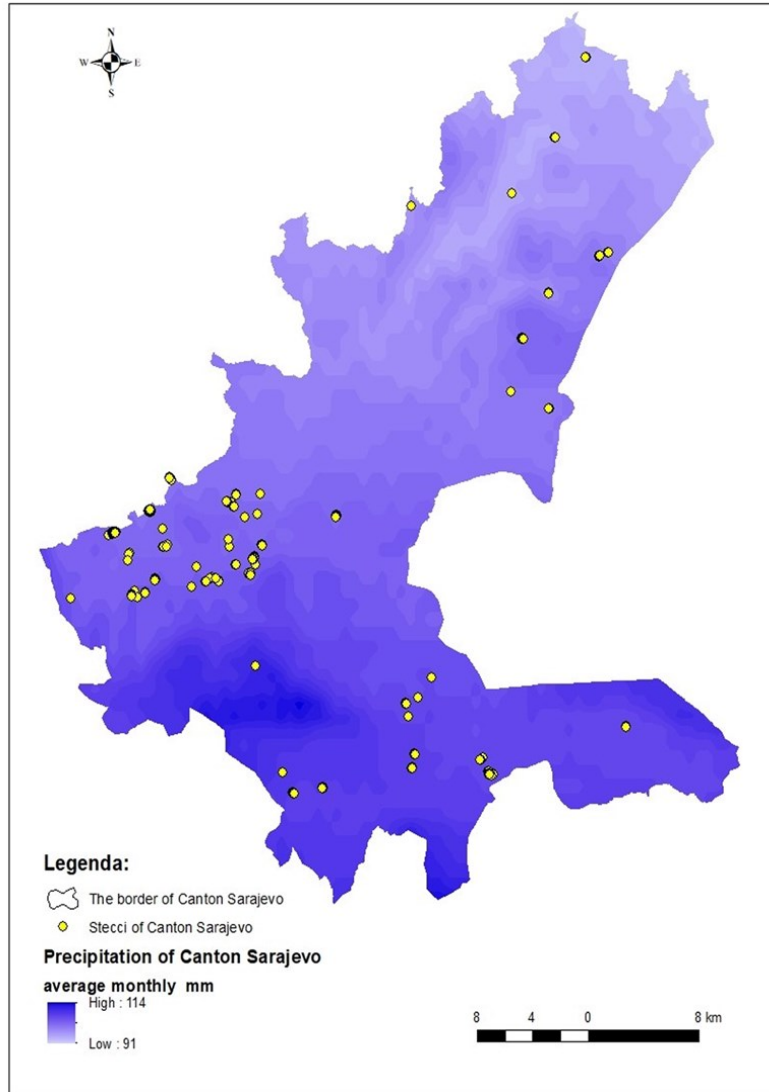
For each defined factor, weighted interpolation values were determined according to their influence on flooding in specific areas of Sarajevo Canton.

### ***Phase 3:***

Analysis, synthesis and systematization of spatial flood risk data and the spatial distribution of stećci.

## **RESULTS AND DISCUSSION**

The conducted multi-criteria analysis indicates that nearly one-third (27%) of Sarajevo Canton is exposed to moderate to very high flood risk, while low and very low risk zones cover about 73% of the territory.

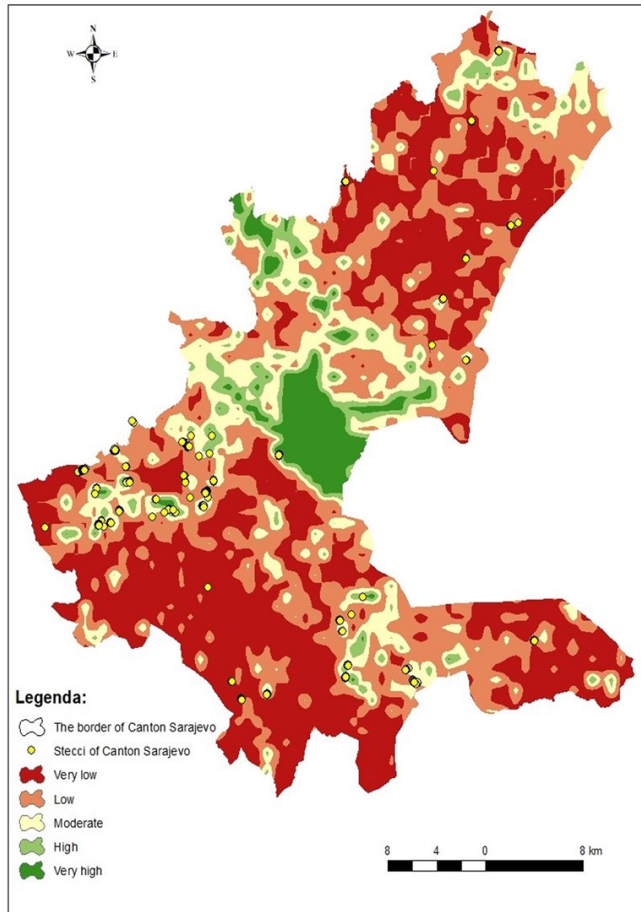


**Fig. 3.** The average monthly precipitation for the recent thirty-year climatic period and the spatial distribution of stećci in Canton Sarajevo

*Source:* Authors' own elaboration based on data from the Annual Yearbooks of the Federal Hydrometeorological Institute of Bosnia and Herzegovina (1994–2024) and the geodatabase of the GIS Centre, Department of Geography, University of Sarajevo – Faculty of Science

The main reason for this spatial distribution lies primarily in the geomorphological and climatic characteristics of the research area, particularly the pluviometry regime. The highest flood risks occur in the lowland hypsometric zones and in the valley and basin expansions of major river systems.

Areas located below 700 meters above sea level represent more than one-fifth (22.1%) of the total territory. Approximately 3.5% of the territory lies at an elevation of up to 500 meters. Flat terrains (with a slope of 0–5°) account for 11.1%, of which 7.14% have a slope of less than 2°.



**Fig. 4.** Flood Risk Map and the spatial distribution of stećci in Canton Sarajevo  
*Source:* Authors' own elaboration based on GIS-based interpolation and spatial analysis using data from the Annual Yearbooks of the Federal Hydrometeorological Institute of Bosnia and Herzegovina (1994–2024) and the geodatabase of the GIS Centre, Department of Geography, University of Sarajevo – Faculty of Science

Parameters of the pluviometry regime, depending on other physical-geographical factors, are crucial for defining flood risk zones. The long-term average maximum monthly precipitation is 114 mm, while the minimum is 91 mm. The average monthly precipitation over the past 30 years has been 78.17 mm. The lowest average amount of precipitation occurs in August, while the highest occurs in December.

A comparative analysis between flood risk zones and the spatial distribution of stećci reveals that more than one-third of all monuments (35.8%) are in areas of moderate to very high flood risk, highlighting their considerable vulnerability. Of the total 1,995 digitized stećci, 13.3% are situated in very low-risk zones and 50.9% in low-risk zones, while 24.2% are in moderate, 5.2% in high and 6.4% in very high flood-risk zones.

These findings emphasize the need to integrate heritage preservation into broader flood-risk management and spatial planning frameworks. Future research should prioritize the comprehensive digitization and georeferencing of all stećci across Sarajevo Canton and expand the analysis to include other climate-induced hazards such as landslides and wildfires, to develop a more holistic and proactive approach to safeguarding cultural heritage under changing environmental conditions.

## CONCLUSION

Climate change is evident at the global, regional and local levels. This is demonstrated by numerical indicators of global warming amounting to 1.1 °C at the global level, 2.1 °C at the European level and 1.7 °C at the level of Sarajevo Canton. Indicators of global warming differ across these scales (global, regional and local) due to the physical-geographical and socio-geographical characteristics of the area. The consequences of climate change are manifested through prolonged droughts, forest fires, landslides, floods and other extreme events. For the purpose of adaptation to and mitigation of climate change impacts, it is crucial to model these processes in order to enable predictive actions aimed at protecting natural resources, human lives and material assets, including cultural heritage.

The analysis confirms that a significant portion of Sarajevo Canton is exposed to flood risk, with more than one-third (35.8%) of all digitized stećci located in moderate to very high-risk zones. This finding highlights the vulnerability of cultural heritage to climate-induced hazards and emphasizes the importance of continuous monitoring, mapping and risk evaluation.

As stećci represent not only a unique cultural-historical legacy but also a valuable element of the tourism offers, the obtained results should be incorporated into sustainable tourism and spatial development strategies, particularly those related to special-interest and heritage-based tourism. Integrating cultural heritage protection into broader climate adaptation and spatial planning frameworks is essential for ensuring the long-term preservation and sustainable use of these monuments under changing environmental conditions.

## REFERENCES

1. Drešković, N. (2003). *Climate of Sarajevo*. Master's thesis, University of Sarajevo, Faculty of Science.
2. Drešković, N. (2011). *Climate types in Bosnia and Herzegovina*. Doctoral dissertation, University of Sarajevo, Faculty of Science.
3. Drešković, N. and Hrelja, E. (2025). Climate change in Bosnia and Herzegovina and its impact on natural hazards: the Jablanica 2024 case study. In: *Proceedings of the Seventh Geological Conference of Bosnia and Herzegovina*, pp. 121–135.
4. Drešković, N. and Hrelja, E. (2025). Climate fluctuations in Bosnia and Herzegovina during the instrumental period: the case of Sarajevo. In: *Proceedings of the Sixth Congress of Geographers of Bosnia and Herzegovina*, pp. 20–36.
5. Drešković, N. and Hrelja, H. (2025). Earth's climate system, climate change and air pollution. In: *Earth's Climate System, Climate Change and Air Pollution*. Sarajevo: University of Sarajevo, Zdravko Grebo Center for Interdisciplinary Studies, pp. 21–36.
6. Drešković, N. and Mirić, R. (2017). *Regional geography of Bosnia and Herzegovina I*. Sarajevo: University of Sarajevo, Faculty of Science.
7. Đug, S. and Drešković, N. (2012). Nature protection in Bosnia and Herzegovina: state and perspectives. *Journal for Geography*, 7(1), pp. 69–80.
8. Economic Institute Sarajevo (2024). *Tourism Development Strategy of Canton Sarajevo until 2030 – draft version*. Sarajevo.
9. Esri (Environmental Systems Research Institute) (2023). *Esri basemaps*. Retrieved from <https://www.esri.com>
10. European Environment Agency (2018). *CORINE Land Cover 2018 dataset*. Copernicus Land Monitoring Service. Retrieved from <https://land.copernicus.eu/pan-european/corine-land-cover>
11. Federal Hydrometeorological Institute of Bosnia and Herzegovina (1994–2024). *Annual hydrometeorological yearbooks*. Sarajevo.
12. Federal Institute of Statistics of Bosnia and Herzegovina (2016). *2013 Population, households and dwellings census in Bosnia and Herzegovina: Final results*. Sarajevo: Federal Institute of Statistics of Bosnia and Herzegovina.
13. Federal Institute of Statistics of the Federation of Bosnia and Herzegovina (2025). *Canton Sarajevo in figures 2025*. Sarajevo: Federal Institute of Statistics of the Federation of Bosnia and Herzegovina.

14. GIS Centre, Department of Geography, Faculty of Science, University of Sarajevo (2025). *Geospatial database on Sarajevo Canton and related spatial layers*. Internal institutional dataset.
15. Hrelja, E. and Drešković, N. (2025). Climate change: causes, consequences and future projections. In: *Climate Change and Air Pollution*. Sarajevo: University of Sarajevo, Zdravko Grebo Center for Interdisciplinary Studies, pp. 35–45.
16. Hrelja, E., Drešković, N., Korjenić, A. and Sivac, A. (2021). Application of GIS in tourism development planning of the Bijambare protected area. *Geografski preglad*, 47, pp. 69–82. <https://doi.org/10.35666/25662880.2021.7.70>
17. IPCC (2021). Summary for Policymakers. In: Masson-Delmotte, V., Zhai, P., Pirani, A., Connors, S.L., Péan, C., Berger, S., Caud, N., Chen, Y., Goldfarb, L., Gomis, M.I., Huang, M., Leitzell, K., Lonnoy, E., Matthews, J.B.R., Maycock, T.K., Waterfield, T., Yelekçi, O., Yu, R. and Zhou, B. (eds.) *Climate Change 2021: The Physical Science Basis*. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge: Cambridge University Press.
18. Mašić, A., Musemić, R. and Džaferović-Mašić, E. (2016). Temperature inversion measurements in the Sarajevo Valley using unmanned aerial vehicles. In: Katalinić, B. (ed.) *Proceedings of the 27th DAAAM International Symposium on Intelligent Manufacturing and Automation*, pp. 423–427. Vienna: DAAAM International. <https://doi.org/10.2507/27th.daaam.proceedings.062>
19. Military Geographical Institute, Belgrade (1984). *Topographic map of the Socialist Federal Republic of Yugoslavia (SFRY)*, scale 1:200,000, Sheet Sarajevo. Belgrade: Military Geographical Institute.
20. Popović, D. and Vuković, A. (2019). *Climate change*. Belgrade: Akademska misao.
21. Reuters (2024, December 20). Fog and smog push Sarajevo towards top world pollution charts. *Reuters*. Retrieved from <https://www.reuters.com/business/environment/fog-smog-push-sarajevo-towards-top-world-pollution-charts-2024-12-20/>
22. Šegota, T. and Filipčić, A. (1996). *Climatology for geographers*. Zagreb: Školska knjiga.
23. Sivac, A. (2022). *Baseline geoinformation model of the spatial distribution of air pollutants in the Sarajevo Valley in the context of urban and spatial planning*. Doctoral dissertation, University of Sarajevo, Faculty of Science.
24. Sivac, A., Korjenić, A. and Hrelja, E. (2023). Geospatial analysis of Sarajevo's tourism planning: unveiling contemporary trends and features.

*Geografski pregled*, 49, pp. 115–132.  
<https://doi.org/10.35666/23038950.2023.49.115>

25. STECCI Project (2023). *Stone monument ensembles and the climate change impact (STECI)*. Horizon Europe. Retrieved from <https://steccihorizoneu.com/about-the-project/>
26. UNESCO World Heritage Committee (2018). *Decisions adopted during the 42nd session of the World Heritage Committee (Manama, Bahrain, 24 June–4 July 2018)* (WHC/18/42.COM/18). Paris: UNESCO World Heritage Centre

## QUANTITATIVE GIS EVALUATION OF SKI SLOPES: CASE STUDY SKI CENTER BJELAŠNICA

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DOI: 10.35666/25662880.2025.11.115

UDC: 796.9:911.3GIS(497.6 Bjelašnica)

**Abstract:** The subject of research in this paper is a quantitative analysis of the ski slopes at the Bjelašnica Ski Center. Bjelašnica is a mountain in Bosnia and Herzegovina, very attractive and visited by domestic and foreign tourists, especially in winter. It is one of the Olympic mountains of Bosnia and Herzegovina, where the XIV Olympic Winter Games were held in 1984. The aim of the research is to present the procedure for quantitative analysis of ski slopes in geographic information systems. The paper analyzes slopes, aspects, altitudes, lengths, determines ski slopes difficulties, and creates topographic profiles for 6 ski slopes. For the purpose of comparing the results, ski slopes on Bjelašnica were selected, where some of these parameters have already been calculated. The analysis was done in geographic information systems by integrating remote sensing data. Quantitative analysis is done primarily to help skiers gain insight into the terrain itself, its steepness, and the difficulty of the trail, in order to better prepare for the experience that awaits them. Ski resort management also needs this information to ensure safety on the trail, improve management, and to assess their ecological impact on the environment. A small number of ski resorts in Bosnia and Herzegovina have conducted a quantitative analysis of ski slopes. Quantitative data on ski slopes improves the tourist offer of ski centers, and it is essential for them to have it.

**Keywords:** ski slopes, quantitative analysis, Bjelašnica Ski Center, Bosnia and Herzegovina, geographic information systems

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## INTRODUCTION

The subject of research in this paper is the ski slopes at the Bjelašnica ski center, which includes quantitative analysis and evaluation of ski slopes using geographic information systems. The aim of the research is to geospatially analyze six selected ski trails on Bjelašnica (out of a total of eight), to determine the altitudes of the starting and ending points, their lengths, aspect, slope angles, configurations and difficulty levels, which will contribute to their increased safety, attractiveness and economic sustainability. Analytical procedures in geographic information systems encompass spatial and attributive data to answer various questions and solve real-world problems (Hadžimustafić, 2023).

Also, the paper present a geospatial analysis, which can be applied to other ski centers and their ski slopes. Using GIS, researchers can create spatial analyses that help make decisions about developing and maintaining ski resorts, identifying the highest quality ski slopes, optimizing ski areas, improving infrastructure, strengthening ski tourism, and preserving the area's natural resources. GIS is a powerful set of tools for collecting, storing, searching as needed, transforming, and displaying spatial data from the real world (Burrough, 1986). A quantitative analysis of the trails on Bjelašnica has been previously conducted, and these values will be used to compare the results obtained through GIS analysis.

The research area is Mount Bjelašnica. It is one of the four Olympic mountains in Bosnia and Herzegovina, where the XIV Winter Olympic Games were held in 1984. Mount Bjelašnica represents a significant geomorphological resource for the development of tourism in our country (Fig. 1.).



**Fig. 1.** Bjelašnica Ski Center (*Photo: Edin Hadžimustafić*)

The Bjelašnica Olympic Center includes one skiing destination, Babin Do, whose slopes are among the top of European ski slopes. The Babin Do ski resort has eight ski slopes and five children's slopes, three cable cars and five ski lifts, which lead to the very top of Bjelašnica at 2,067 m. For skiers, this mountain beauty offers 14,000 m of slopes for alpine skiing (Olympic centers Bjelašnica-Igman). A meteorological station was built on the highest peak (2,067 m) in 1894, which is also the highest permanently inhabited point in Bosnia and Herzegovina.

Since 2005, the Bjelašnica area, together with Igman, Treskavica and the Rakitnica Canyon, has been declared an area of special significance for the Federation of Bosnia and Herzegovina, with the aim of preserving biological, landscape and geomorphological diversity (Sivac, Hrelja, 2022).

Mountains in Bosnia and Herzegovina, including Bjelašnica, are attractive and visited by tourists. Extraordinary natural beauty, geodiversity, landscape diversity, rivers and lakes, rich forests, even rainforests, preserved biodiversity, ski resorts, a network of mountain trails, remote mountain villages with a rich gastronomic and (ethno)cultural offer, are some of the attractions that attract domestic and foreign tourists (Mešanović, Hadžimustafić, 2025).

Mountain tourism is one of the most attractive forms of tourist movement, and the most widespread continental recreational form. Mountain tourism is a specific form of tourism that focuses on activities in mountainous areas, such as hiking, skiing and ecotourism. These activities provide opportunities for enjoying nature, as well as for physical activity and relaxation. This type of tourism contributes to the preservation of natural resources and biodiversity, while simultaneously providing economic benefits to local communities.

The most common forms of tourist valorization of mountain areas are: mountaineering and other recreational activities, whitewater adventure activities, and snow recreation. Snow recreation activities include cross-country skiing, alpine skiing, heliport, snowboarding, sledding, bob, biathlon, etc. Such recreation is mostly limited to higher mountain areas in the snowy winter tourist season (Temimović et al., 2017).

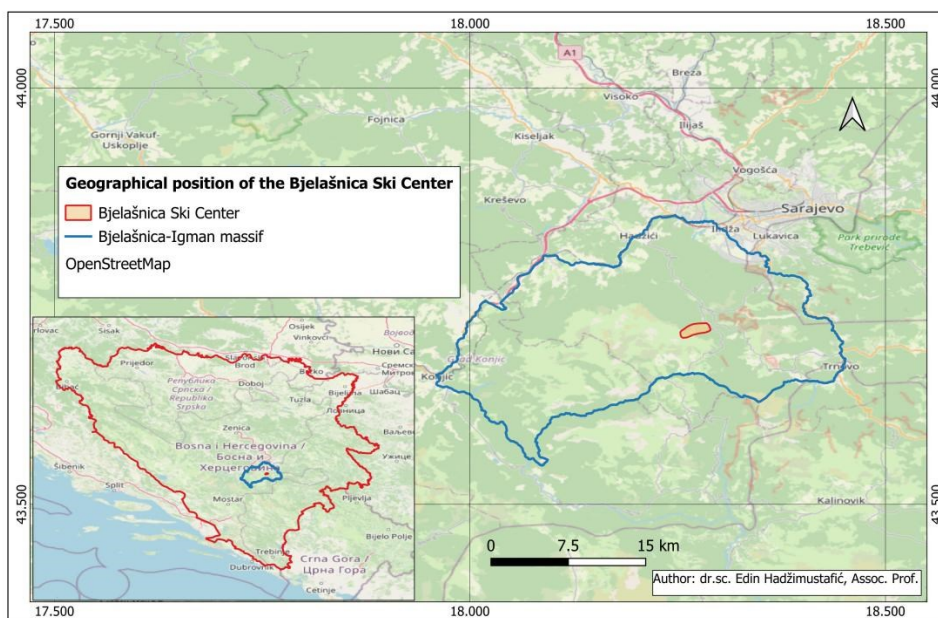
In the tourist valorization, three parts of the mountain are particularly valued: peaks, slopes and foothills. Peaks are valued for their adrenaline and the desire of mountaineers and alpinists to conquer them. Slopes allow for hiking and various skiing activities, while tourist settlements are mainly formed at the foothills of attractive mountains (Mešanović, Hadžimustafić, 2023).

Staying in the mountains has many benefits for the human body and mind. Fresh mountain air improves lung function and increases the amount of oxygen in the body. Movement and spending time in nature strengthen the cardiovascular system, increasing an individual's strength and endurance, which leads to better overall physical health (Mešanović, Hadžimustafić, 2025). The mountain climate has a beneficial effect on the human body, it increases the number of red blood cells, it is suitable for asthmatics, anemic people, people who do a lot of intellectual work, staying in fresh and clean air has a beneficial effect on people who replace the urban environment with a natural environment (Hadžimustafić, Mešanović, 2024).

## MATERIALS AND METHODS

### Study area

Bjelašnica is a high mountain located in the central part of Bosnia and Herzegovina and belongs to the Dinaric Mountain system. It is located about 25 km southwest of Sarajevo, the capital of Bosnia and Herzegovina (Fig. 2.). Bjelašnica represents a large Dinaric plateau stretching from northwest to southeast, over a length of 22 km.



**Fig. 2.** Geographical position of the Bjelašnica Ski Center (*Source: created by authors*)

Bjelašnica borders the Igman mountain in the north, but since they form the same mountain massif with Bjelašnica, they can be considered as one unit. Bjelašnica and Igman Mountain are bounded from the north by the Sarajevo Field, the Zujevina River and the Željeznica; to the east is the border from Sarajevo polje from the river Željeznica across Hojta, through the canyon of the river Rakitnica; to the west is the border from the river Zujevina across Ivan-sedlo and the river Trešanica, the right tributary of the Neretva. From the south, it is bordered by the river Rakitnica and Neretva (Mihčić, 1984).

The geological structure of Bjelašnica is dominated by limestone and dolomite. In geomorphological terms, it has a karst and glacial relief, represented by plateaus, valleys, fields, sinkholes, pits and caves. According to geomorphological regionalization, it is located in the Macroregion of the High Central Dinarides (Lepirica, 2009).

Bjelašnica is divided into High and Low. The Bjelašnica Ski Center is located in the extreme northeastern part of High Bjelašnica. From the highest northeastern ridge of Bjelašnica, where the highest peak of the Observatory is located (2,067 m), towards Babin dol, a slope with ski trails stretches. The slopes of the Ski Center are built of Triassic limestones that genetically belong to the covered karst.

This area has a mountain climate, and the highest peaks have characteristics of an alpine climate. For the period 1961-1990. the average annual air temperature was 1.2°C (FHMZ). The annual amount of rain and snow precipitation is, on average, more than 2,000 mm, depending on the altitude. Snow remains for three to six months. Snow cover greater than 10 cm usually lasts 160 days a year, from late November to May (Sivac et al., 2024).

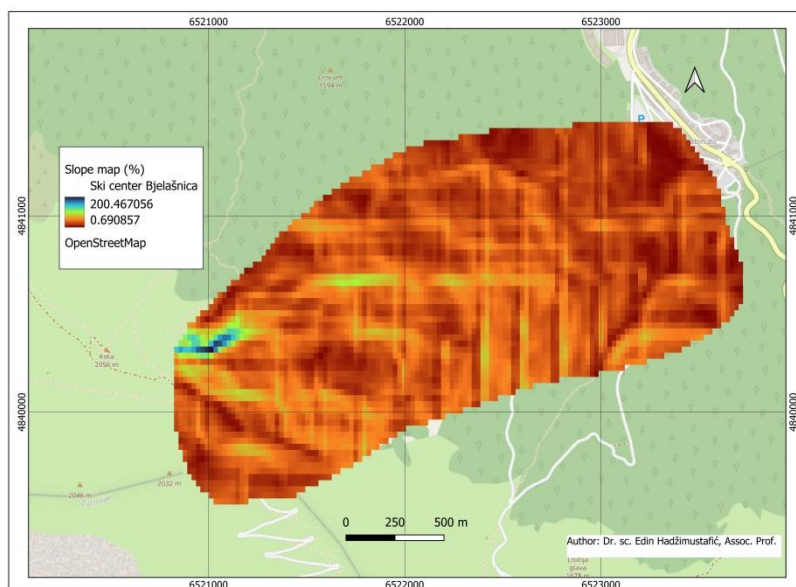
In hydrological terms, the area is a watershed between the Black Sea and Adriatic basins, which, due to the karst terrain, is characterized by the absence of significant surface flows. Botanical research on Bjelašnica has been extensive and the mountain has beech forests, beech and fir forests, with very little spruce. Also, on Bjelašnica we find forests of mountain pine (Balijan, 2017).

For quantitative analysis of ski slopes in geographic information systems, vector and raster data models were used. The ski slopes were taken from the OpenStreetMap (OSM) website. The relief of the slopes of the Bjelašnica ski center was analyzed using the global SRTM Digital Elevation Model with a spatial resolution of 30 m (USGS). Data analysis was carried out in geographic information systems, QGIS 3.34.3 software. All geographic data models were reprojected into a

single Gauss-Kruger coordinate reference system, which is the reference for the area of Bosnia and Herzegovina.

Ski trails on OSM are shown in segments, for which quantitative parameters have been calculated. These segments do not reflect the real situation, because these parts of the trail were not selected according to the uniformity of the slope on them. Therefore, it was necessary to first connect the segments of individual trails, and then continue their analysis.

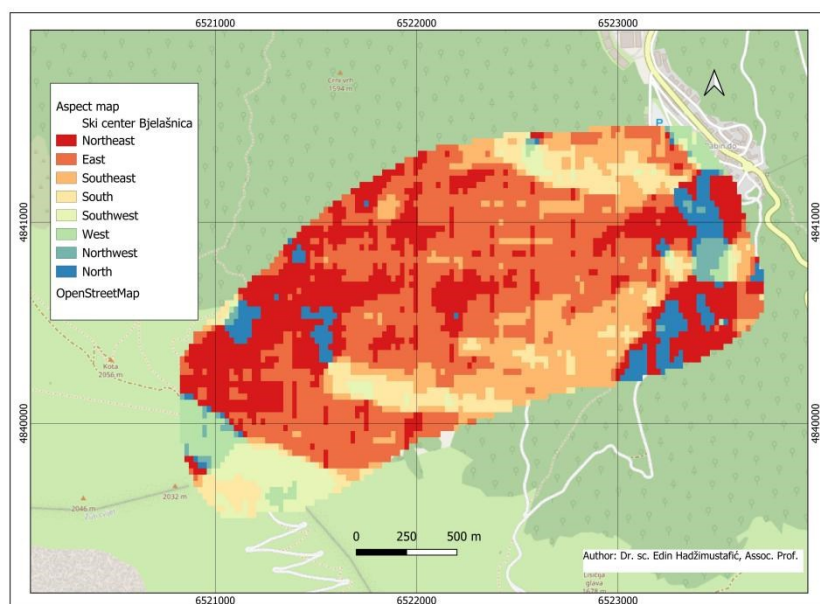
The first step is to download tracks, or their segments (if the track is made up of several parts), and connect them into one whole. This gives a complete path from one part, from beginning to end, which made it possible to calculate its length. After that, the ski slope, or rather the line that represents it, is divided into a series of points at equal distances (in our case, every 20 m). After obtaining the points, a longitudinal topographic profile of the entire ski track was made. The topographic profile shows the slope angles of the track, so it can be used to distinguish parts that have a similar slope, that is, to determine the boundaries where the slope changes rapidly. For those parts with a uniform slope, points that were previously formed are selected. These parts of the ski slope, represented by points with a similar slope angles, are exported to separate files. The points are connected into lines in order to later determine their lengths and display the weights. These files also need to be saved.



**Fig. 3.** Slope angle map of Bjelašnica ski center (*Source: created by authors*)

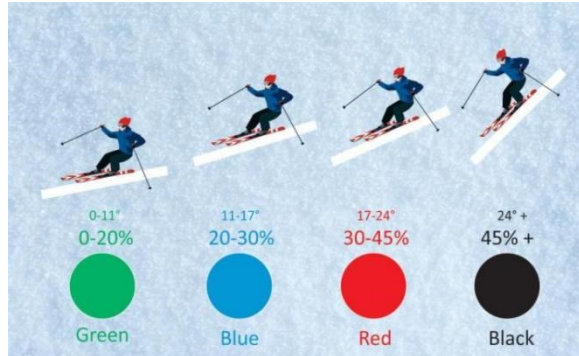
For slope angles and aspect analysis Digital Elevation Model of Bjelašnica ski center was used. The slope angles expressed in percentages are DEM (Fig. 3.). It served as the basis for determining the statistical parameters of the tracks and their parts. From the same digital elevation model, slope orientations were derived, which were later used to analyze the aspect of ski slopes (Fig. 4.).

The points that were previously extracted are assigned slope and aspect values from the raster. These obtained values are saved in Microsoft Excel where further statistical analysis was performed. Calculated statistical values are: minimum, maximum, average and standard deviation. The average slope value also indicates the difficulty of the ski slope.



**Fig. 4.** Aspect map of Bjelašnica ski center (Source: created by authors)

The difficulty of ski slopes in the Alps is classified using color codes: Green for beginners, Blue for intermediate, Red for difficult and Black for expert slopes. Slope from 0 - 20%, has a green ski track. Maximum slope of 20 - 30%, blue ski track. Slope from 30 to 45%, red track and slope over 45%, black ski track (Fig. 5.).



**Fig. 5.** Color codes for determining the difficulty of ski slopes (*Source: created by authors*)

In order to provide a clearer visualization of the ski trails and their difficulty, 3D terrain models were created to display them. They highlight the difficulty of the trails in colors that correspond to the specified classification.

## RESULTS AND DISCUSSION

At the Bjelašnica Ski Center, a quantitative analysis of six ski slopes was conducted: ski slope “Downhill”, ski slope “Slalom and giant slalom”, ski slope “Štinji Do”, ski slope “Vučko”, ski slope “Kolijevka” and Training ski slope. Altitudes, lengths, slope angles, aspect were analyzed, slope difficulties were determined, and topographic profiles of all six trails were created. When determining trail weights, most trails were divided into individual segments with the same weights. This clearly and precisely highlights the difficulty of the trails, which is necessary for skiers visiting the ski center for the first time. Green slopes have the lowest gradient, for absolute beginners with no experience. Injuries are very rare. Blue slopes are wide, with gentle slopes, ideal for beginner skiers, the risk of injury is reduced. Medium-difficult slopes or red slopes require much more skill and experience from skiers. They have steeper sections and various obstacles. Experienced skiers ski on difficult or black slopes. They are steep, with increased slopes and sudden changes in the terrain. The risk of injury is very high. The management of ski centers must take care to inform skiers about the difficulty of ski slopes, or the potential risks they carry, in order to increase safety and reduce possible injuries.

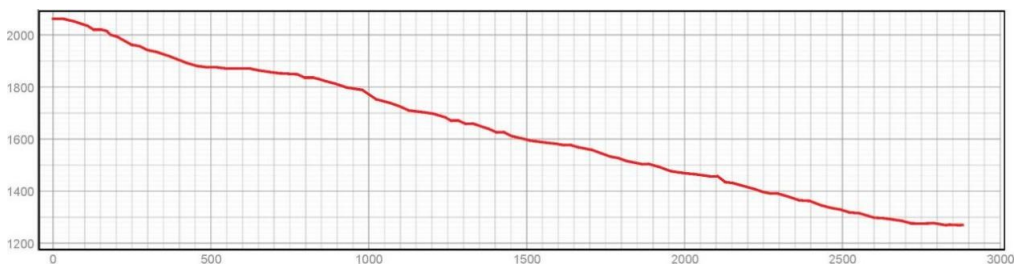
We could not find on the official web portals that the difficulty of the trails by segment is shown on a map. There is only a general division of trails by difficulty, coded in colors. For the entire trails, as well as individual sections, a statistical

analysis was performed with calculated values: minimum, maximum, average and standard deviation.

The data obtained could only be compared for the Ski slope “Downhill” and the official “Downhill” track on the website of the Ski Center Bjelašnica - Igman (Ski Center Bjelašnica - Igman). A slightly different methodology was used for the other slopes and they could not be compared.

### **Ski slope “Downhill”**

The “Downhill” ski slope was built for the competition at the XIV Winter Olympic Games. The total length of the “Downhill” ski slope is 2,840 m. According to official data from the Bjelašnica - Igman Ski Center, the length of this slope is 2,830 m (Ski Center Bjelašnica - Igman). The slope starts at the highest peak of Bjelašnica at 2,067 m and ends in Babin Do at 1,270 m. The configuration of the slope is shown by a topographic profile (Fig. 6.).



**Fig. 6.** Longitudinal profile of Ski slope “Downhill” (*Source: created by authors*)

The average slope angle of the “Downhill” ski slope is 33%, which matches the official data (Ski Center Bjelašnica - Igman). It is divided into four parts with lengths calculated from the initial part of the slope to the final one. The first part is 470 m long, with an average slope of 48%, which places it in the Black category of ski slope difficulty. The second part continues the previous one, with a length of 500 m and an average slope of 19%, or the Green category of ski slope difficulty. The third part of the slope is the longest, with 1,380 m and an average slope of 37%, which places it in the Red category of ski slope difficulty. The final part of the slope, with a length of 490 m and an average slope of 22%, places it in the Blue category of ski slope difficulty.

The average aspect of the upper Black category part of the ski slope is 24°, which is a northern aspect. The second part or Green category of ski slope difficulty, has an average aspect of 77°, which is an eastern aspect. The third part of the ski slope, has

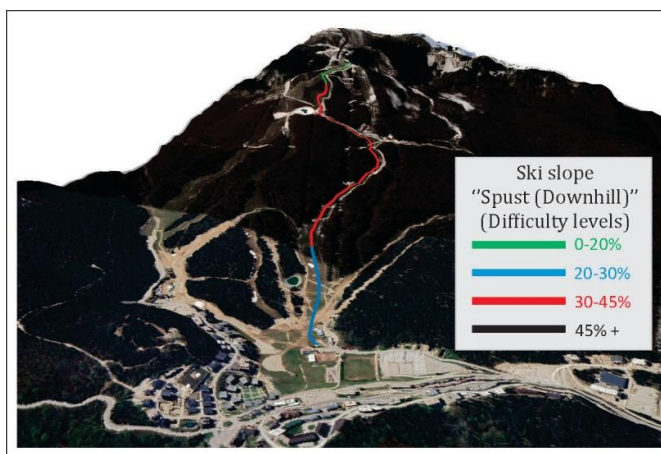
a northeastern aspect with a value of  $67^\circ$ . The final part of the ski slope, with a difficulty of Blue category, has an eastern aspect or  $84^\circ$ .

**Tab. 1.** The results of the quantitative analysis of the “Downhill” ski slope

Piste segment	First	Second	Third	Fourth
Length (m)	470	500	1380	490
<b>Statistical analysis</b>				
Min	8.62	1.34	13.13	6.78
Max	79.32	43.35	70.69	39.66
Average	48.23	18.71	37.39	21.62
StDev	18.72	10.26	12.78	10.55
Ski piste difficulty	Black	Green	Red	Blue

*Source: authors*

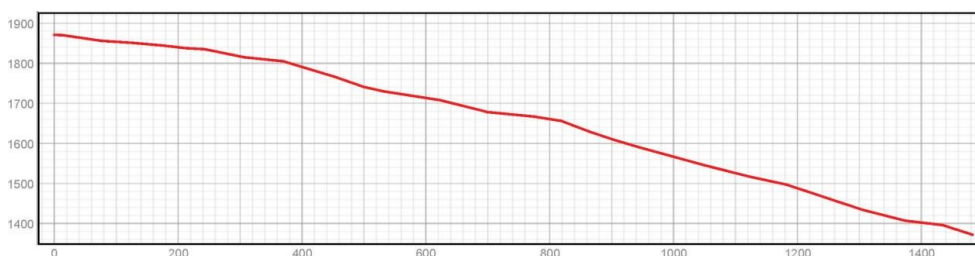
The total length of the trail, divided into parts by difficulty, is shown on the 3D model of the Bjelašnica ski center (Fig. 7.).



**Fig. 7.** 3D model of difficulty levels of Ski slope “Spust (Downhill)” (*Source: created by authors*)

## Ski slope “Slalom and giant slalom”

The ski slope “Slalom and giant slalom” was used for slalom races and giant slalom at the XIV Winter Olympic Games. The length of the “Slalom and giant slalom” ski slope is 1,520 m. It starts at an altitude of 1,871 m and ends at 1,372 m. The path is shown with a longitudinal topographic profile, where its slope is clearly visible, as well as the height difference between the starting and ending points (Fig. 8.).



**Fig. 8.** Longitudinal profile of Ski slope “Slalom and giant slalom” (Source: created by authors)

A statistical analysis was performed on two segments of the ski slope. The first or upper part has a length of 385 m and an average slope of 24%, which places it in the Blue category of ski slope difficulty. The second or lower part of the ski slope has a length of 1,135 m and an average slope of 40%. According to the difficulty of the slope, it falls into the Red category.

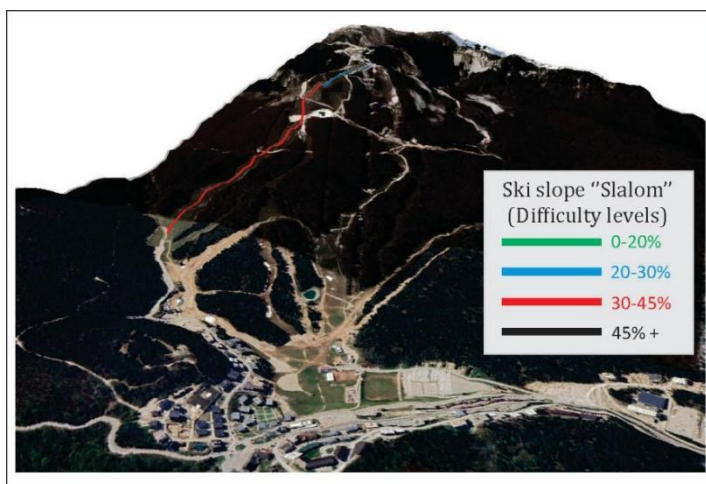
The first part of the ski slope is oriented towards the northeast with an average aspect value of 60°. The second part of the ski slope has an average aspect value of 88°, which is the east direction.

**Tab. 2.** The results of the quantitative analysis of the “Slalom and giant slalom” ski slope

Piste segment	First	Second
Length (m)	385	1135
<b>Statistical analysis</b>		
Min	4.59	16.42
Max	51.88	75.09
Average	24.12	40.16
StDev	10.15	14.49
Ski piste difficulty	Blue	Red

Source: authors

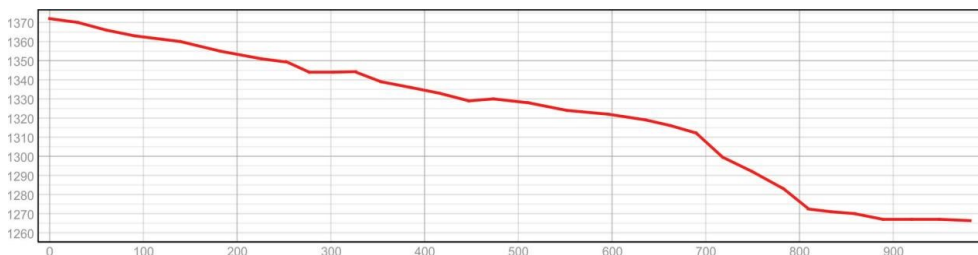
The ski slope “Slalom and giant slalom” is shown on the 3D model of the ski center Bjelašnica, with its two segments (Fig. 9.).



**Fig. 9.** 3D model of difficulty levels of Ski slope “Slalom and giant slalom”  
(Source: created by authors)

### Ski slope “Štinji Do”

The ski slope “Štinji Do” continues the previous ski slope “Slalom”. It is the shortest track with a length of 985 m. According to Temimović, E. and Muratović, M., (2015), the length of this track is 1,047 m. The beginning of the ski trail is at 1,372 m, and the end is in Babin Do at 1,271 m. The total length and slope angle changes of the ski track are shown on the longitudinal profile (Fig. 10.).



**Fig. 10.** Longitudinal profile of Ski slope “Štinji Do” (Source: created by authors)

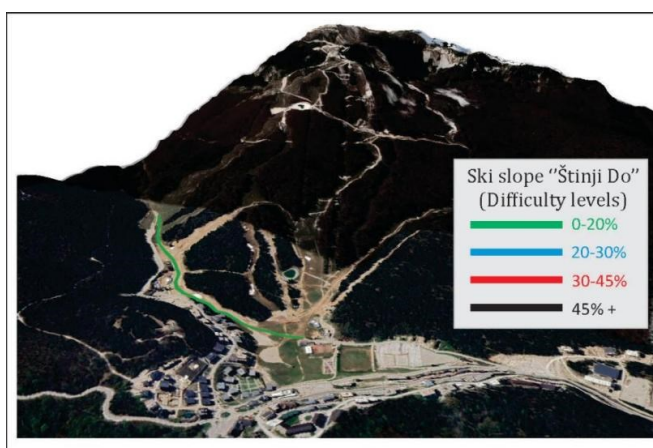
The ski slope “Štinji Do” has an average slope angle of 15%, and according to the difficulty of the trail, it is classified as Green category. The average aspect of the ski slope is 96°, oriented towards the east.

**Tab. 3.** The results of the quantitative analysis of the “Štinji Do” ski slope

Statistical analysis	
Min	3.05
Max	39.36
Average	15.30
Mode	9.33
StDev	9.15
Ski piste difficulty	Green

*Source: authors*

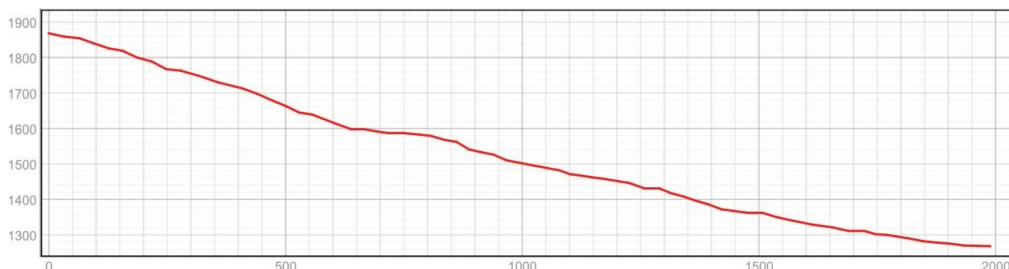
A 3D model was created for this slope, for a clearer visualization of the track and its surroundings (Fig. 11.).



**Fig. 11.** 3D model of difficulty level of Ski slope “Štinji Do” (*Source: created by authors*)

### Ski slope “Vučko”

Ski slope “Vučko” was named after the official mascot of the XIV Winter Olympic Games. It has a length of 1,988 m, starting at 1,868 m and ending at 1,268 m in Babin Do. The appearance of the slope, its configuration and any changes in slope angles are shown on the longitudinal profile (Fig. 12.).



**Fig. 12.** Longitudinal profile of Ski slope “Vučko” (*Source: created by authors*)

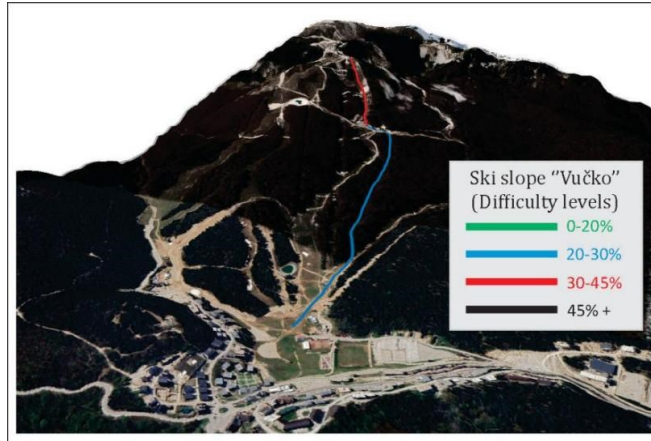
The trail is divided into two parts according to gradients or difficulty. The first or upper part is 640m long, with an average slope angle of 44%, which according to the weight puts it in the Red category. The second or lower part of the trail with 1,345m and an average slope angle of 27%, according to the difficulty of the trail, is classified as Blue. The first part of the ski slope is oriented towards the northeast with an aspect value of 37°. The second part of the ski slope has an eastern aspect with value of 73°.

**Tab. 4.** The results of the quantitative analysis of the “Vučko” ski slope

<b>Piste segment</b>	<b>First</b>	<b>Second</b>
<b>Length (m)</b>	640	1345
<b>Statistical analysis</b>		
<b>Min</b>	17.82	5.53
<b>Max</b>	76.44	60.58
<b>Average</b>	44.61	27.65
<b>Mode</b>	35.63	18.68
<b>StDev</b>	13.08	11.13
<b>Ski piste difficulty</b>	Red	Blue

*Source: authors*

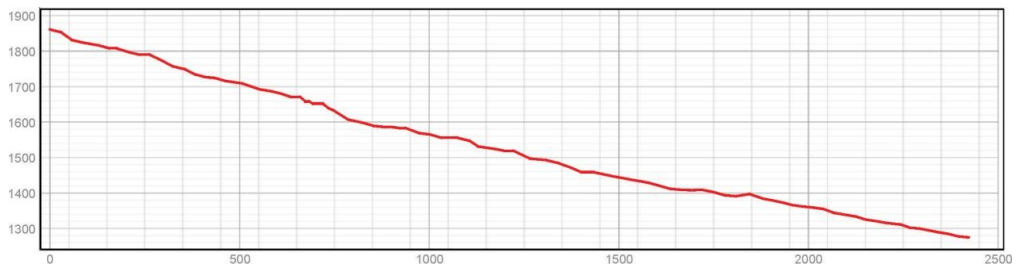
In order to visualize the track more clearly, its 3D model was created (Fig. 13.).



**Fig. 13.** 3D model of difficulty levels of Ski slope "Vučko" (Source: created by authors)

### Ski slope "Kolijevka"

The ski slope "Kolijevka" has a length of 2,423 m. It starts at 1,861 m and ends at 1,268 m. The appearance of the track, with its length and slope angles, is shown in a longitudinal profile (Fig. 14.).



**Fig. 14.** Longitudinal profile of Ski slope "Kolijevka" (Source: created by authors)

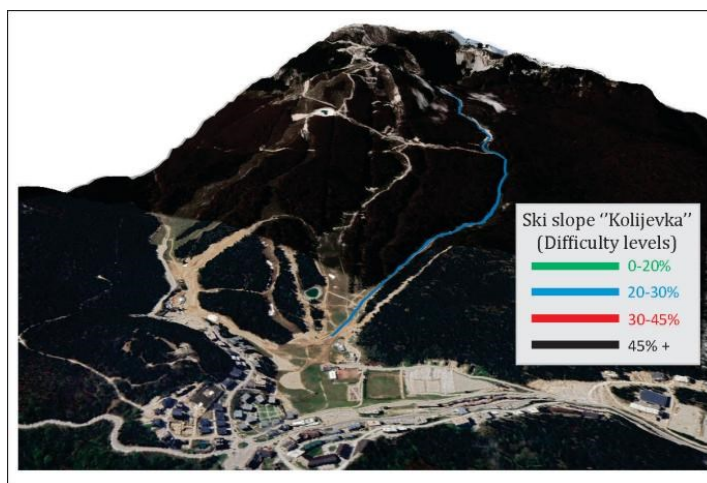
Ski slope "Kolijevka" has a uniform slope angle of 29%, which can also be seen on its longitudinal profile. According to the ski slope difficulty, it is classified as Blue. Ski slope "Kolijevka" has an average aspect of  $95^\circ$ , that is, it is oriented on average towards the east.

**Tab. 5.** The results of the quantitative analysis of the “Kolijevka” ski slope

Statistical analysis	
Min	7.60
Max	62.19
Average	29.03
Mode	44.10
StDev	10.34
Ski piste difficulty	Blue

*Source: authors*

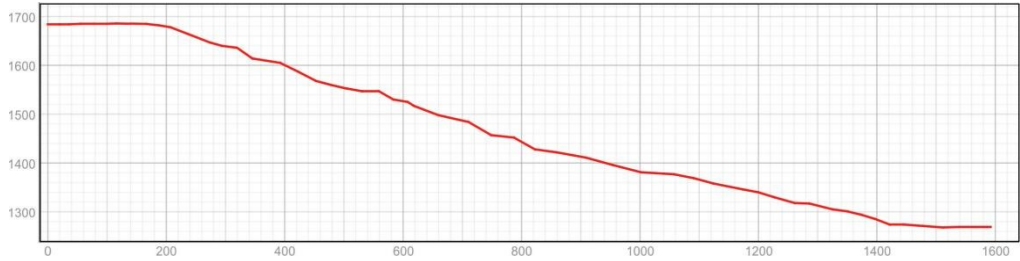
A 3D model of the Ski slope “Kolijevka” was also made, so that the length, slope angles and relief can be visually analyzed (Fig. 15.).



**Fig. 15.** 3D model of difficulty levels of Ski slope “Kolijevka” (*Source: created by authors*)

### Training ski slope

Finally, the Training ski slope, which has a length of 1,593 m, was analyzed. It starts at 1,615 m and ends at 1,268 m. The longitudinal profile shows the configuration of the terrain, its slope angles and length (Fig. 16.).



**Fig. 16.** Longitudinal profile of Training ski slope (*Source: created by authors*)

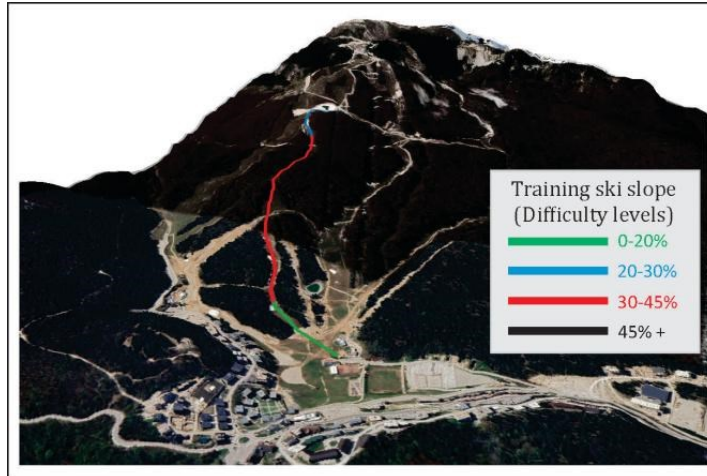
The training ski slope is divided into three parts. The statistical analysis conducted determined that the average slope of the initial part of the slope angle is 30%, so the ski slope difficulty is in the Blue category. The middle part of the slope has an average slope angle of 34%, the ski slope difficulty is in the Red category. And the lower part of the slope has the smallest slope of 19.6%, which places it in the Green category of ski slope difficulty, although this value is on the very border between the Green and Blue slopes. The upper and middle parts of the Training ski slope are oriented towards the east with average aspect values of 85° and 70°, respectively. The lower or final part of the ski slope has a northeast aspect with a value of 63°.

**Tab. 6.** The results of the quantitative analysis of the Training ski slope

<b>Piste segment</b>	<b>First</b>	<b>Second</b>	<b>Third</b>
<b>Length (m)</b>	375	935	305
<b>Statistical analysis</b>			
<b>Min</b>	11.47	14.70	5.53
<b>Max</b>	61.56	61.56	38.93
<b>Average</b>	29.92	34.51	19.63
<b>Mode</b>	11.47	26.72	25.83
<b>StDev</b>	14.81	11.76	10.50
<b>Ski piste difficulty</b>	Blue	Red	Green

*Source: authors*

A 3D model of the Training Ski slope was also made, so that the length, slope angles and relief can be visually analyzed (Fig. 17.).



**Fig. 17.** 3D model of difficulty levels of Training ski slope (*Source: created by authors*)

In terms of sustainable trail management, ski slopes should be designed and maintained in a way that minimizes the impact on the human environment. This includes the use of natural materials for the construction of ski slopes, as well as the preservation of local flora and fauna. The preservation of natural trails and mountain landscapes contributes to the preservation of the ecosystems themselves, which is of huge importance for the biodiversity of the area and the health of mountain areas.

## CONCLUSION

Bjelašnica Mountain is very attractive and has been valorized as a tourist destination. Its attractiveness began after the XIV Winter Olympic Games. It is home to a ski center with eight ski slopes, six of which are analyzed in this paper. A quantitative analysis was conducted in geographic information systems. This method gives good and very precise results. It can be applied to any ski slope, anywhere in the world. A digital elevation model with a spatial resolution of 30 m was used in this paper. The accuracy of the results would increase if a digital elevation model with a better resolution were used.

Finally, to conclude in general, skiers should choose ski slopes correctly according to their own skills and experience, which is crucial for skiing safety. Likewise, one should adhere to the rules of skiing and be aware of the conditions on the ski slopes, the most important of which are the current weather conditions and snow depth. Also, the difficulty of the slopes plays a significant role in shaping the experience of

individual visitors or entire families, affecting their safety and security, the level of enjoyment of the skiers and their confidence.

This paper represents a contribution to the development of ski tourism in Bosnia and Herzegovina. It can also help in making decisions about the development and maintenance of ski centers, improving infrastructure, strengthening winter tourism and preserving the natural resources of the area.

## REFERENCES

1. Balijan, D. (2017). Zemlja planina Bosna i Hercegovina, FMC Svjetlo riječi, Sarajevo.
2. Burrough, P.A. (1986). Principles of Geographical Information Systems for Land Resources Assessment. Oxford University Press, Oxford.
3. FHMZ - Federalni hidrometeorološki zavod (Federal Hydrometeorological Institute), <https://www.fhmzbih.gov.ba/latinica/KLIMA/godisnjaci.php>.
4. Hadžimustafić, E. (2023). Uvod u geografske informacione sisteme. Udruženje geografa u Bosni i Hercegovini, Sarajevo.
5. Hadžimustafić, E., Mešanović, Dž. (2024). The natural resources of the primeval forest Perućica as the basis of nature-based tourism. Journal of Tourism and Hospitality Management, Year 10, Vol. 10, 10th International Tourism and Hospitality Management Conference, Department of Geography, Faculty of Science, University of Sarajevo, Sarajevo, pp. 56-72. DOI: 10.35666/25662880.2024.10.56.2.
6. Hrelja, E. (2016). Tourism development of Bjelasnica mountain – problems and perspective, Geographical Review – Scientific Journal for Geography, Department of Geography, Faculty of Science, University of Sarajevo, No. 37, Sarajevo, pp. 239-247. DOI: 10.35666/23038950.2016.37.239.
7. KJKP ZOI 84 OCS doo © Olimpijski centri Bjelašnica – Igman. <https://ocbjelasnica.com/aktivnosti-na-bjelasnici/>
8. Lepirica, A. (2009). Reljef geomorfoloških makroregija Bosne i Hercegovine. Zbornik radova Prirodno-matematičkog fakulteta, Svezak Geografija, Godina VI, Broj 6, Univerzitet u Tuzli, PMF, Tuzla, 7-52.
9. Mešanović, Dž., Hadžimustafić, E. (2025). Zdravstveni i sportsko-rekreativni turizam, OFF-SET, Tuzla.
10. Mešanović, Dž., Hadžimustafić, E. (2023). Ekonomska geografija, Udruženje geografa u Bosni i Hercegovini, Sarajevo.
11. Mihić, LJ. (1984). Bjelašnica i Igman - planine XIV Zimske olimpijade. SOUR APRO Hercegovina Odbor za programiranje razvoja, Mostar.

12. Sivac, A., Hrelja, E., Korjenić, A., Drešković, N. (2024). A GIS-based multi-criteria analysis of optimal ski resort locations in Sarajevo Canton. *Journal of Tourism and Hospitality Management*, Year 10, Vol. 10, 10th International Tourism and Hospitality Management Conference, Department of Geography, Faculty of Science, University of Sarajevo, Sarajevo, pp. 73-91. DOI: 10.35666/25662880.2024.10.73.
13. Sivac, A., Hrelja, E. (2022). Primjena geoprostornih tehnologija u analizi promjena pokrovnosti i načina korištenja zemljišta na širem lokalitetu Babinog dola, Bjelašnica, *Geodetski glasnik*, 53, 24-38.
14. Temimović, E., Banda, A., Jahić, H., Okerić, Š. (2017). Natural geographical tourism attractions of Prenj Mountain, *Journal of Tourism and Hospitality Management*, Year 3, Vol. 3, 3rd International Tourism and Hospitality Management Conference, Department of Geography, Faculty of Science, University of Sarajevo, Sarajevo, pp. 181-189. DOI: 10.35666/25662880.2017.3.181.
15. Temimović, E., Muratović, M. (2015). Analiza kapaciteta ski-staza na Bjelašnici kao preduslov planiranja turističke sezone. *Acta geographica Bosniae et Herzegovinae* 2015, 4, Udruženje geografa u Bosni i Hercegovini, Sarajevo, 83-92.
16. OSM, <https://www.openstreetmap.org/#map=11/43.7190/18.3204>.
17. Ski Center Bjelašnica - Igman, <https://bjelasnica.ba/portret/ski-centar/>.
18. USGS, <https://earthexplorer.usgs.gov/>.

# GASTRONOMIC TOURISM IN THE HERCEG ETHNO VILLAGE IN THE WEST HERZEGOVINA TOURIST-GEOGRAPHIC REGION

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DOI: 10.35666/25662880.2025.11.135

UDC: 338.48-6:641/642(497.6-15)

**Abstract:** The Herceg Ethno Village in the West Herzegovina region is a kind of "living museum" in which the cultural identity of this region is further interpreted through the gastronomic offer. It is necessary to look at this identity through various forms of branding and marketing strategies, which would be used in the promotion of gastro tourism at the Herceg Ethno Village. The authors of this paper want to show that the development of gastro tourism and the development of its brand do not only imply a name or logo, but include numerous elements that shape the experience of visitors/tourists: from the smell and taste of traditional food, the visual identity of the restaurant and the ambience, to the way of presentation and communication with guests. That is why gastro tourism will be observed through its multisensory experiences, which will provide an excellent basis for showing the construction of a strong and authentic tourist brand, in the service of the development and survival of the Herceg Ethno Village.

**Keywords:** Herceg Ethno Village, gastronomic tourism, branding, marketing, development

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## INTRODUCTION

The modern development of tourism, particularly in the context of the growing demand for authentic, experiential, and meaningful forms of travel, has placed gastronomy at the forefront as a powerful element of destination identity and a significant motive for tourist arrivals. In this context, gastro tourism extends far beyond satisfying the basic nutritional needs of visitors; it serves as a medium through which tourists gain a deeper understanding of local culture, traditions, customs, and everyday life.

Culinary practices, traditional recipes, modes of food preparation, and the use of local ingredients reflect the historical, social, and environmental characteristics of a region, thereby transforming gastronomy into a form of cultural expression.

Through such experiences, gastro tourism contributes directly to the development of sustainable and differentiated tourism products by supporting local producers, preserving culinary heritage, encouraging the use of seasonal and locally sourced ingredients, and strengthening the connection between tourism and the local community. At the same time, it enhances the overall tourist experience by creating emotional bonds with the destination, increasing visitor satisfaction, and fostering repeat visitation. As a result, gastronomy increasingly represents not only a complementary tourism activity, but also a strategic resource for destination development and long-term competitiveness in the tourism market.

Gastronomic tourism is frequently understood as a form of travel in which visitors seek to enjoy unique and authentic culinary experiences (UNWTO, 2017). It encompasses a wide range of activities, including tasting local and traditional dishes, visiting farms and food producers, participating in cooking workshops, and attending gastronomic festivals and events that showcase regional specialties. These experiences allow tourists to engage with the culture, history, and traditions of a destination through its food, thereby creating meaningful and memorable connections with the local community.

Gillespie (2000) states that: “The study of gastronomy brings an understanding of the scope of food and beverage production and preparation, as well as how, where, when, and why they are consumed” (Gillespie, 2001). According to Wolf, “Gastronomic tourism is the movement of people traveling in search of enjoyment from prepared food, beverages, and other food-related events” (Wolf, 2006).

Gastronomic tourism is also referred to as “food tourism,” “tasting tourism,” or “culinary tourism.” Culinary tourism is defined as the pursuit of a unique and memorable eating and drinking experience. Gastronomic tourism refers to travel to

destinations where local food and beverages are the primary motivation for visiting (Dávid et al., 2010).

In addition, gastronomic tourism contributes to the promotion and preservation of local culinary heritage, supports small-scale producers, and encourages sustainable practices such as the use of seasonal and locally sourced ingredients. It also plays an important role in differentiating destinations in competitive tourism markets, as food-based experiences are often closely linked to a region's identity and authenticity.

Digital marketing has become an increasingly vital tool for presenting and promoting these experiences. Through high-quality photos, videos, blogs, social media posts, and online reviews, destinations can effectively communicate the sensory and cultural aspects of their gastronomic offerings to a global audience. Such digital content not only raises awareness but also influences travel decisions, shapes visitor expectations, and enhances engagement before, during, and after the travel experience. In this way, gastronomy and digital promotion together form a strategic combination for attracting tourists and strengthening the brand identity of destinations.

Ethno villages in Bosnia and Herzegovina, such as Ethno Village Herceg in the West Herzegovina tourist-geographic region, often provide a rich gastronomic offer rooted in local recipes, traditional methods of food preparation, and the use of locally sourced ingredients. These villages aim to preserve and showcase the culinary heritage of the region, offering visitors an immersive experience that combines taste, culture, and history. Traditional dishes, prepared according to time-honored recipes, and the use of regional products not only enhance the authenticity of the visitor experience but also support local producers and contribute to the socio-economic development of surrounding communities.

Despite the richness of their gastronomic offerings, the digital presence of many ethno villages remains uneven and underdeveloped. While some destinations maintain active social media profiles and online booking options, others lack professional digital marketing strategies, consistent content updates, or high-quality visual materials. This uneven digital visibility limits their ability to reach broader audiences, particularly international tourists, who increasingly rely on online platforms, reviews, and social media content when choosing travel destinations. Strengthening digital communication, including professionally produced photos, videos, blogs, and interactive content, would enable these ethno villages to better showcase their culinary and cultural offerings, attract a larger number of visitors, and establish themselves as competitive, authentic, and sustainable tourism destinations.

Research indicates that tourists increasingly rely on digital sources of information when selecting travel destinations, with social media and websites playing a particularly important role (Mariani et al., 2016). For ethno villages, having a high-quality and regularly updated website—featuring professional photos, menus, interactive maps, and the option for online reservations—can significantly enhance their ability to attract visitors. In addition, user-generated content, such as reviews on TripAdvisor, Instagram posts, and travel vlogs, serves as a highly credible form of promotion that is essentially cost-free for the destination (Fotis et al., 2012).

Moreover, a strong presence on digital platforms such as Google Maps, Booking.com, and Facebook can further increase the visibility and accessibility of ethno villages to a wide audience. These tools not only facilitate trip planning and decision-making but also help establish a destination's online reputation, strengthen its brand, and contribute to competitive positioning within both domestic and international tourism markets.

### **HERCEG ETHNO VILLAGE IN THE WEST HERZEGOVINA TOURIST-GEOGRAPHIC REGION**

According to the collected data, the Ethno Village Herceg (Fig. 1) was founded in 2008, but the process of the construction concept, as well as the idea of creating such a concept, took a very long time, and the construction itself was gradual. Ethno Village Herceg is the kind of village that testifies to the time trapped in the rocky terrain of Herzegovina, embodying the way and culture of life in the rocky area. A village built of stone and made of stone, just a few kilometers from the famous shrine of Medjugorje, at the crossroads of Čitluk, Medjugorje and Ljubuški, can rightly be called the miracle of the Herzegovinian region, and by its geographical position it belongs to the West Herzegovina region. Its tourist-geographical position is very favorable because it is located only 30 km from the Adriatic coast, and it is also located relatively close to the border between our country and the Republic of Croatia, which also increases the importance of its location (Bidžan, 2012).



**Fig. 1.** Ethno Village Herceg complex in Medjugorje

Source: Official website of the ethno village Herceg (retrieved 25.06.2025.)

Ethno Village Herceg is a hotel and tourist complex that covers an area of 5 hectares, where over 50 stone buildings have been built. The complex has an accommodation capacity of 70 modernly equipped rooms, a restaurant and additional tourist facilities. It is important to mention that the center of the complex is the Herceg restaurant and a hamlet with 10 stone houses with hotel rooms and 3 separate apartment houses (Official website of the Ethno Village Herceg). This area borders a shopping zone with a dozen shops offering handicrafts, souvenirs and traditional products such as homemade honey or freshly ground flour.

The stone houses in this ethno village represent an authentic reconstruction of traditional Herzegovinian stone architecture and the way of life as it was in the past. They have their own symbolism as part of the cultural and historical heritage of this area. Built of stone, a material that dominates the Herzegovinian karst, they depict life in harmony with nature and the modest conditions in which previous generations lived. Also, they are a symbol of an authentic rural ambience, because their interior is equipped with rustic furniture, antique objects and details that faithfully depict the everyday life of old Herzegovinian households. In this way, tourists are given the opportunity to stay in spaces reminiscent of old Herzegovina, which creates a unique experience of combining the past and the comfort of modern accommodation. However, the most important message of these facilities is that they are not only accommodation facilities, but also have educational value because they remind us of the importance of preserving cultural identity through architecture, crafts and everyday customs. Special attention was paid to the preservation of the original appearance (Fig. 2), as well as the beauty of the landscape, and the entire village was built with care and love for nature and the environment. The ultimate goal was to

bring back to the present the Herzegovinian village as it was a hundred or more years ago.



**Fig. 2.** The beginning of the construction of stone houses in the Ethno Village Herceg  
Source: Official website of the ethno village Herceg (25.06.2025.)

Since the demand from modern tourists for additional facilities is increasing, this ethno village also offers: a museum, a chapel, shops, a stable with domestic animals and a bowling alley. Also, a congress hall was built for business purposes, and next to it there is an impressive amphitheater for cultural events. In the second phase, the multifunctional hall Queen Katarina was built, and finally, in 2014, the outdoor pool (Fig. 5), with an area of 1,250 m<sup>2</sup>, was opened. It was built using the latest design technology, with accompanying facilities such as an outdoor bar, outdoor fitness, etc. (Official website of Ethno Village Herceg).

In the center of the village there are a dozen houses that represent the commercial part of this ethno village, where you can find numerous souvenir shops (stone, wood and metal products), art galleries, shops of aromatic herbs, as well as shops of handmade costumes and jewelry. Nearby there is a stone house that is designed as a museum. It houses a setting that represents a way of life as it was lived more than a hundred years ago. This house, as well as the entire village, is a witness to some old times, which need to be shaken out of oblivion. Inside and around the house there are many authentic objects (furniture, dishes, decorations), and tools specific to the Herzegovinian region that were used in the past.

The chapel is located in the center of the village and represents the place from which one moves and to which one returns. The chapel represents a return to the spiritual dimension and the preservation of religious tradition, nurturing culture and the development of literacy. As then, so today, the chapel is the center of life in the area, a

place of socializing around which the locals used to gather to celebrate the successfully completed sowing, harvest or engagement, or they gathered to see off the deceased (Official website of the ethno village Herceg 1).

In addition to the religious building, there are other facilities that are exclusively intended for relaxation or an active vacation in this village. One example is the barn with domestic animals, which is now a great attraction for visitors. Since domestic animals have become a rarity in the Herzegovinian region, the youngest generations today barely know cows, donkeys, sheep and goats. For this reason, in this ethno village they have tried to gather these domestic animals in one place. Among them the most popular are donkeys, and there is also a small horse (pony). For the little ones, it is an irresistible attraction, since they can enjoy touching them and even feeding some of them, of course under the supervision of adults.

When it comes to the gastronomy of this area, the Herceg restaurant plays the biggest role. It is distinguished by six peculiarities that make a unique whole so far unseen in this region. The restaurant has an interesting, authentic interior with a spacious outdoor terrace and is the central gathering place not only for the guests of this tourist complex, but also for those who are attracted here by the rich and autochthonous ethno-gastronomic offer. With a total of three hundred seats inside spread over several floors, as well as an additional three hundred seats on the outdoor terraces, it exudes warmth and a homely atmosphere, and its special charm is given by the stream that gurgles through the entire restaurant. The combination of stone walls decorated with photographs of Herzegovinian motifs and furniture handmade of solid oak, as well as all other details, makes visitors feel comfortable here and come back again and again (Official website of Ethno Village Herceg 2).

The gastronomic offer is quite unusual, because it is a combination of local specialties (Herzegovinian donuts, Herzegovinian prosciutto, Herzegovinian cheeses and cream, Herzegovinian pan, Herzegovinian steak platter, veal peka in Herzegovinian style, honey rosa cake, etc.), which is complemented by modern seafood (fish pâté, octopus salad, pasta with fingerlings, Adriatic squid, various fish, etc.) and international specialties (Greek salad, various risottos, tortellini alla panna, lasagna, pizzas, dessert semifreddo, etc.). In short, there is an offer for every taste, even for the pickiest guests (Official website of Ethno Village Herceg 3). They try to find something for everyone, and this can be reflected in the overall picture of the gastronomic offer, on the one hand positively and, on the other, negatively. The explanation for this is the following: if we adapt too much to the needs of tourists, fulfilling their every wish and thus gaining their trust and enthusiasm, we lose what is traditional and autochthonous.

Therefore, we need to carefully consider all options before making the final offer to tourists, because we still need to keep our traditional gastronomic offer, by which we are unique and by which we need to be recognized in the tourist market. In this restaurant, tourists can enjoy a unique offer of various wines, including the famous autochthonous varieties Blatina and Žilavka.

## **BRANDING AND MARKETING OF ETHNO VILLAGE HERCEG**

### **Branding of Ethno Village Herceg**

"Destination branding is the process of creating a unique identity and perception in the minds of tourists, with the aim of differentiating in a competitive market and building long-term visitor loyalty" (Pike, 2017). In the context of gastro tourism, a brand encompasses far more than a name or logo; it includes all elements that shape the visitor experience—from the aromas and flavors of traditional cuisine, and the visual identity and ambience of dining spaces, to methods of presentation and communication with guests. Through its multisensory nature, gastro tourism provides a strong foundation for building a distinctive and authentic tourism brand.

The taste of dishes, accompanying aromas, styles of serving, local narratives, and customs experienced during meals are deeply embedded in tourists' memories and become an integral part of their overall perception of the destination. When effectively communicated through marketing strategies and coherent brand storytelling, these emotional impressions can play a decisive role in destination choice.

Ethno village branding in Bosnia and Herzegovina continues to rely predominantly on ambience and natural surroundings, while comparatively little attention is given to the development of a recognizable identity that extends beyond the physical space. Ethno Village Herceg has successfully established the image of a high-end ethno complex incorporating elements of traditional Herzegovinian architecture; however, the impression of "museum-like authenticity" often prevails over an authentic representation of everyday rural life.

One of the most critical yet systematically neglected aspects of branding in this context is gastronomy. Rather than serving as a central pillar of identity, traditional Herzegovinian cuisine frequently remains marginalized, replaced by seafood, Italian, or other modern menus that are not characteristic of the region or its rural traditions. Although Ethno Village Herceg makes efforts to present local cuisine, it often adopts a more luxurious culinary approach, thereby distancing itself from the authenticity that should form the core of the ethno concept.

Beyond gastronomic challenges, the destination also faces a gradual erosion of identity authenticity due to modernization and commercialization. As a result, tourism increasingly assumes the form of a staged attraction, leaving diminishing space for genuine cultural exchange between hosts and visitors.

In order to extend the tourist season, the professional management of Ethno Village Herceg should implement the following measures:

- Development of a clear and authentic brand for Ethno Village Herceg, involving the creation of a distinctive identity grounded in gastronomy, cultural heritage, local customs, and unique local narratives, supported by a recognizable “signature” of the destination.
- Investment in digital marketing, which includes the professional production of visual content, active and strategic management of social media platforms, and storytelling focused on traditional recipes, local crafts, and everyday life in the region.
- Introduction of additional digital content formats, such as blogs, YouTube channels, or podcasts, which can further enhance visibility, audience engagement, and long-term interest in the destination.
- Repositioning gastronomy as a strategic tourism product, through the development of a locally recognizable, seasonal, and authentic gastronomic offer. This can be achieved by organizing culinary workshops, food festivals, and promoting local products, thereby directly contributing to the economic sustainability of the destination and the wider rural area.

### **Marketing of Ethno Village Herceg**

Marketing is also one of the segments that have a great impact on the development of gastro tourism in Bosnia and Herzegovina. Tourism marketing is the process of identifying and meeting the needs of tourists through the creation, communication and delivery of value, with the aim of creating a competitive advantage for the destination (Kotler & Keller, 2016). Effective gastro tourism marketing also includes digital promotion channels, especially social networks, specialized tourism platforms, influencers and visitor reviews, which play a significant role in making travel decisions. Modern tourists are increasingly looking for authentic experiences, and it is through clear and attractive marketing communication that ethno villages and traditional catering facilities can convey a unique story about local dishes and customs. In this regard, the importance of storytelling is increasing – telling stories about food, its origin, tradition and the people who prepare it.

When it comes to promoting this ethno village, they use social networks (Facebook and Instagram) the most to advertise and thus attract future tourists. First of all, the visual identity that dominates Instagram and Facebook emphasizes authentic

aesthetics, such as stone houses, massive oak buildings, lush horticulture and biodesign with a swimming pool, etc. Every day, photos or videos are shared on social networks, where there are elements such as a restaurant by the stream or a bocce court, creating the impression of a peaceful oasis that combines tradition and luxury. Also, family-friendly elements are emphasized, such as a barn with domestic animals and sporting events such as the "Explosion of Talents" for children, etc. (See the official website of Brooklyn.)

Following the conducted interviews, data were collected from three distinct groups of tourists: two groups of five international tourists and one group of four domestic tourists. The interview consisted of ten structured questions, to which respondents provided numerical evaluations on a scale from 0 to 5, where 0 indicated the absence of a tourism offering and 5 represented excellence.

The questions addressed various aspects of the ethno village experience, including whether the supporting facilities were consistently designed in an ethno style and whether the respondents considered the quality of services satisfactory in relation to the price paid. Analysis of the responses yielded an average rating of 4.6, indicating a high level of overall satisfaction among visitors. However, respondents also noted that the ethno village should continue efforts to enhance its authenticity, suggesting that further improvements in preserving and presenting traditional elements could strengthen the destination's appeal. It was determined that the respondents became aware of this ethno village through social media. The findings indicate that they learned about the ethno village primarily via social networking platforms, and that well-known influencers and singers who promoted the destination played a significant role in motivating their visits. Also, their attention was attracted by attractive photos and high reviews from guests who stayed here (they saw this information on Booking). That is why it is very important that every ethno village, as well as this one, for marketing campaigns uses professional photographs, carefully selected, which can "communicate" with future potential visitors.

Also, what this ethno village in particular still needs to do is create its own authentic brand, in order to become even more recognizable in the tourist market. Branding in tourism implies the creation of a clear, recognizable and emotionally connected image of a certain tourist destination in the minds of tourists, whether they are current or future. Ethno Village Herceg, located near Medjugorje, which is known as a religious tourist destination, is only trying to build its own brand, which would combine tradition, authenticity, peaceful nature, an oasis and modern comfort.

Ethno Village Herceg was designed, but is also being developed with a clear goal: to become recognizable as a brand of ethno and cultural tourism in Herzegovina and

beyond. The architecture of the village is based on stone, wood and other natural materials that were characteristic of traditional Herzegovinian villages in the West Herzegovina region. Every house, path and detail in the decoration reflects the spirit of the past. This creates a strong visual impression that connects guests to an authentic ambience, without the need for modern effects. What makes Ethno Village Herceg special is the combination of authenticity and luxury: the buildings are built in the antique stone style, and the interior of the accommodation units offers modern comfort, air conditioning, wellness facilities and technical amenities. This combination attracts tourists who want to experience the rural and cultural heritage of an area, but do not want to give up comfort.

Also, we should mention that what the professional staff of Ethno Village Herceg is working on and improving is their e-marketing, and especially e-mail marketing. This form of marketing is one of the oldest, but still extremely effective components of digital marketing. It is about direct communication with the target audience via e-mail with the aim of promoting products and services, strengthening the brand, building relationships with customers or increasing sales. There are three types of e-mail: transactional, relational and promotional (Cave, J., 2016).

Ethno Village Herceg is mostly engaged in transactional e-mail. Transactional e-mail is sent in response to a specific action of the customer; it can be in the form of a reservation confirmation, an invoice if it is an online payment, or a notification of reservation confirmation. This type of e-mail is the most opened by customers and brings in from 2 to 5% of revenue. Of course, using this type of e-mail we can also cause negative consequences; if we perform a minimization of contacts after some negative customer action, we do not need to do this. We do not need to put pressure on customers who want to check out (Cave, J., 2016).

Let's take one example of a transactional e-mail from Ethno Village Herceg:

Subject: Reservation confirmation – Ethno Village Herceg

Thank you for choosing Ethno Village Herceg for your stay! We are pleased to inform you that your reservation has been successfully received and confirmed. Additional information: arrival is possible from 14:00 and check-out is by 11:00. Free parking and Wi-Fi are included in the price, and a map of the village and information materials are available at the reception. We recommend that you do not miss the opportunity to enjoy our traditional gastronomic offer in the Herceg restaurant, as well as a walk through our ethno complex full of authentic architecture and natural beauty. Our team is at your disposal for any other questions – please call us on the phone number

provided or write to our e-mail address. We look forward to your arrival and wish you a pleasant stay!

## **SUSTAINABLE TOURISM AND DEVELOPMENT OF THE ETHNO VILLAGE HERCEG**

In the contemporary tourism context, increasing importance is being placed on the development of sustainable tourism infrastructure—specifically infrastructure that does not degrade the local area, natural environment, or social cohesion, but instead contributes to the preservation of natural resources and enhances the quality of life of the local population. Ethno Village Herceg possesses significant potential to become an exemplary model of sustainable development; however, achieving this requires more strategic approaches and long-term planning that extend beyond short-term commercial objectives.

One of the key challenges facing this ethno village is the insufficient development of tourism infrastructure aligned with sustainability principles. Essential infrastructural elements—such as pedestrian and cycling paths, eco-friendly piers, solar-powered public lighting, ecological sanitation facilities, educational points highlighting local flora and fauna, and well-developed transport connections—are either lacking or inadequately developed. In addition to physical infrastructure, the development of institutional infrastructure is equally important. This includes the establishment of local management structures, tourist information offices, trained personnel, and cooperation with local associations, artisans, and producers.

Sustainable tourism also requires the active involvement of the local population in decision-making processes and in the creation of tourism offerings, thereby strengthening the socio-economic stability of the community. In this regard, a suitable development model is the rural tourism cluster, in which Ethno Village Herceg would act as the central development driver, around which local producers of food, handicrafts, and services would be integrated.

Gastronomy plays a significant role in sustainable tourism development. Ethno Village Herceg should aim to base its gastronomic offer on locally produced, organic, and seasonal ingredients, with a transparent system that enables the traceability of product origins. Furthermore, the introduction of slow food concepts—where meals are prepared using traditional methods, without industrial additives—would contribute to the preservation of Herzegovina's intangible cultural heritage.

Digital sustainability also represents an important component of sustainable tourism development. This includes the use of environmentally responsible digital platforms, applications that reduce the need for paper documentation (such as digital guides and

QR-code-based information systems), and online educational content that informs tourists about appropriate behavior, environmental protection, and cultural sensitivity (Ružić et al., 2009).

Ethno Village Herceg should develop an integrated development strategy that connects this area of the West Herzegovina region into a unified community framework, balancing environmental protection with economically sustainable growth and ensuring the active involvement of the local population. In addition, the introduction of environmental standards in construction, the use of natural materials, and the preservation of the surrounding landscape are essential. The development of multifunctional infrastructure that integrates gastronomy, recreation, and cultural heritage should also be encouraged. Digital transformation, along with the establishment of a continuous monitoring and evaluation system for sustainability indicators, will be necessary to maintain a long-term balance between tourism development and environmental conservation.

In contemporary tourism, potential visitors increasingly research destinations through social media, blogs, and online reviews before making travel decisions. Visual representation plays a crucial role in shaping their perceptions and motivating visitation. Promotional photographs that emphasize dense greenery, floral elements, and carefully designed decorative features evoke a sense of natural harmony, order, and aesthetic appeal. When combined with traditional architectural elements—such as stone houses and water features—these visuals effectively highlight the authenticity and cultural character of Ethno Village Herceg. As such, visual content represents a powerful tool within the destination’s marketing strategy, contributing significantly to the attraction of potential tourists.

Overall, Ethno Village Herceg is on a promising path toward becoming a recognizable and sustainable tourist destination.

## CONCLUSION

Gastro tourism in Ethno Village Herceg represents a significant opportunity for the valorization of rural areas in the West Herzegovina region, primarily through the promotion of cultural and culinary heritage. By integrating authentic Herzegovinian cuisine, preserved natural landscapes, and traditional narratives, Ethno Village Herceg establishes itself not merely as a place of accommodation, but as a destination offering a comprehensive experiential journey. Visitors are provided with opportunities to engage with local customs, taste regional specialties prepared according to traditional methods, and immerse themselves in the intangible cultural heritage of the region.

The future development of this destination will depend on the ability of relevant stakeholders—including local authorities, tourism managers, and community representatives—to identify and adapt to global tourism trends, leverage digital tools effectively, and ensure sustainability through active community involvement. While substantial development opportunities exist, their realization requires a strategic and responsible approach, emphasizing long-term planning over short-term commercial gains. In this regard, the adoption of strategic planning documents is essential to guide sustainable tourism development, coordinate investments, and integrate gastronomy, culture, and environmental preservation into a coherent destination strategy.

In terms of branding, Ethno Village Herceg aims to create an image that blends traditional Herzegovinian elements with a modernized tourism experience. Its marketing activities are primarily focused on digital channels, particularly social media platforms such as Facebook and Instagram, where visual content highlighting the ambience, culinary offerings, and facilities within the complex is consistently shared. The quality of visual presentation is crucial for attracting younger audiences and international tourists, who often rely on online images and stories to form initial perceptions of a destination.

Moreover, Ethno Village Herceg maintains visibility on online travel platforms such as Booking.com, where it consistently receives high ratings. At the time of writing, the average guest rating is 9.1, with visitors particularly emphasizing the quality of accommodation, cleanliness, friendliness of the staff, and the authentic atmosphere of the village. This demonstrates that the destination successfully meets key expectations regarding service quality and overall visitor satisfaction.

Despite these evident strengths, the analysis reveals several areas for improvement. Notably, there is an absence of a clearly defined branding strategy and a professionalized marketing approach that could strengthen the village's positioning in both domestic and international tourism markets. Enhancing strategic branding would

allow Ethno Village Herceg to differentiate itself from competing destinations, establish a more recognizable identity linked to its gastronomy and cultural heritage, and attract a more diverse and consistent flow of visitors throughout the year. Furthermore, a comprehensive marketing strategy—integrating social media, digital storytelling, influencer collaborations, and targeted online advertising—could significantly increase visibility, reinforce the destination’s image, and contribute to both economic sustainability and long-term tourism development.

## REFERENCES

1. Bidžan, A. (2012): Turističko-geografski rejoni Bosne i Hercegovine, Zbornik III Kongresa geografa Bosne i Hercegovine, Geografsko društvo u FBiH, Sarajevo.
2. David, L., Remenyik, B. & Nagy, Z. (2010): Culinary geography of multiculturalism in Ghimes, *Gasztronómiai Szimpózium*, Rátz, T. & Füreder, B. (eds.), Siofok, pp. 56-66.
3. Fotis, J., Buhalis, D., Rossides, N. (2012): Social Media Use and Impact during the Holiday Travel Planning Process, *Information and Communication Technologies in Tourism 2012*, Springer Vienna, pp 13–24.
4. Gillespie, C. (2001): *European Gastronomy into the 21st Century*, Butterworth-Heinemann, London.
5. Kotler, P., & Keller, K. L. (2016). *Marketing Management* (15th ed.). Pearson Education. London.
6. Mariani, M.M., Di Felice, M., Mura, M. (2016): Facebook as a destination marketing tool: Evidence from Italian regional Destination Management Organizations, *Tourism Management*, Elsevier, vol. 54(C), pages 321-343.
7. Pike, S. (2017): *Destination Marketing: Essentials*, Routledge, London.
8. Ružić, D., Biloš, A., Turkalj, D. (2009): *e-Marketing*. II izdanje. Ekonomski fakultet u Osijeku, Osijek.
9. UNWTO (2017): *Drugi globalni izvještaj o gastronomskom turizmu*, Madrid.
10. Wolf, E. (2006): *Culinary Tourism: The Hidden Harvest*, Kendall/Hunt Publishing, New York.

### Website

1. Cave, J. (2016): Digital Marketing Vs. Traditional Marketing: Which One Is Better? Dostupno na: <https://www.digitaldoughnut.com/articles/2016/july/digital-marketing-vstraditional-marketing> (accessed on: 24.06.2025.)
2. Oficijalna stranica etno sela Herceg, <https://etno-herceg.com/povijest/> (accessed on: 25.06.2025.)

3. Oficijalna stranica etno sela Herceg 1, <https://etno-herceg.com/ostali-sadrzaji/> (accessed on: 25.06.2025.)
4. Oficijalna stranica etno sela Herceg 2, <https://etno-herceg.com/restoran/> (accessed on: 25.06.2025.)
5. Oficijalna stranica etno sela Herceg 3, <https://etno-herceg.com/ponuda-jela/> (accessed on: 25.06.2025.)
6. Oficijalna stranica Brotnjo info, <https://www.brotnjo.info/2024/08/16/herceg-etno-selo-postaje-epicentar-mlade-sportske-eksplozije-talenta/> (accessed on: 25.06.2025.)

# LEGAL FRAMEWORK OF TOURISM IN BOSNIA AND HERZEGOVINA: ANALYSIS OF LEGISLATION AND ITS IMPACT ON SECTOR DEVELOPMENT

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DOI: 10.35666/25662880.2025.11.151

UDC: 338.485:349(497.6)

**Abstract:** This paper provides an overview of the legal instability caused by inadequate and unregulated legislation, as well as by the failure to implement existing laws, which affects the development of the tourism sector in Bosnia and Herzegovina. Insufficient enforcement of legal regulations further contributes to strengthening public distrust in the institutions responsible for tourism development. The research uses a mixed-methods approach: desk review of relevant legal documents (laws, regulations) and strategic plans (e.g. the new Tourism Development Strategy for Federation of BiH 2022-2027) to map the formal framework; literature review of academic, policy, and evaluation reports; and semi-structured interviews with key informants (government officials, tourism associations, local community leaders). Comparative analysis with EU norms is used to spot divergences. Data are qualitatively analyzed to extract recurring themes of legal/institutional constraint.

**Keywords:** tourism, legal framework, EU norms, legal harmonization, environmental protection

## INTRODUCTION

Tourism represents one of the most dynamic sectors of contemporary economies, contributing significantly to economic growth, employment generation, and regional development (Hall, 2008). In countries with rich natural and cultural resources, such as Bosnia and Herzegovina, tourism has the potential to serve as a key driver of sustainable development. However, the realization of this potential largely depends on the existence of a stable, coherent, and effectively implemented legal framework that regulates tourism activities and ensures legal certainty for all stakeholders. The development of the tourism sector is strongly influenced by the quality and coherence of its legal and institutional framework. A clear, stable, and harmonized legal environment is essential for attracting investment, ensuring service quality, protecting tourists and service providers, and promoting sustainable and competitive tourism development.

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In complex administrative systems, such as that of Bosnia and Herzegovina, the regulatory framework for tourism is shaped by multiple levels of governance, including state, entity, cantonal, and local authorities. This fragmentation often results in overlapping competencies, regulatory inconsistencies, and challenges in policy coordination.

Bosnia and Herzegovina's constitutional structure, established under the Dayton Peace Agreement, significantly affects the formulation and implementation of tourism-related legislation. The absence of a comprehensive state-level tourism law, combined with entity- and canton-based regulations, creates a decentralized legal landscape that may both enable local flexibility and hinder strategic sector development at the national level. Consequently, tourism stakeholders frequently face administrative barriers, legal uncertainty, and uneven regulatory standards across different regions of the country.

This paper aims to analyze the legal framework governing tourism in Bosnia and Herzegovina, with a focus on key legislative instruments, institutional responsibilities, and regulatory mechanisms. By identifying structural weaknesses and regulatory gaps, the study seeks to assess the extent to which the current legal framework supports sustainable tourism growth and aligns with international and European Union standards.

The findings of this research are expected to contribute to a better understanding of the relationship between legal regulation and tourism development in Bosnia and Herzegovina, as well as to provide a basis for policy recommendations aimed at improving legislative coherence, governance efficiency, and long-term sector development.

## **BiH LEGAL FRAMEWORK – KEY ELEMENTS**

The legal framework governing tourism in Bosnia and Herzegovina is characterized by a high degree of institutional and regulatory complexity, resulting primarily from the country's constitutional structure. Established by the Dayton Peace Agreement, Bosnia and Herzegovina functions as a decentralized state composed of two entities—the Federation of Bosnia and Herzegovina and the Republika Srpska—along with the Brčko District, each possessing significant legislative authority. As a consequence, tourism regulation is largely decentralized and fragmented across multiple administrative levels.

At the state level, Bosnia and Herzegovina does not have a comprehensive tourism law. Instead, limited competencies related to tourism are exercised through institutions responsible for foreign trade, economic relations, and international cooperation. The absence of a unified national tourism strategy and harmonized legislation poses challenges for coordinated sector development, international promotion, and alignment with European Union tourism and services regulations.

In the Federation of Bosnia and Herzegovina, tourism legislation is further divided between the entity and cantonal levels (Law on Tourism Activity of the Federation of Bosnia and Herzegovina, 2009).<sup>2</sup> While the Federation adopts framework laws governing hospitality and tourism activities, cantons retain substantial authority to regulate tourism operations, licensing procedures, tourism taxes, and inspection mechanisms. This results in varying legal standards and administrative practices across cantons, which can create legal uncertainty for investors and tourism service providers operating in multiple jurisdictions.

In Republika Srpska, tourism is regulated primarily at the entity level through a centralized legislative approach (Law on Tourism of Republika Srpska, 2017).<sup>3</sup> The entity has adopted specific laws regulating tourism activities, hospitality services, tourist organizations, and tourism promotion. Compared to the Federation, Republika Srpska offers a more uniform regulatory environment; however, challenges remain regarding implementation capacity, enforcement mechanisms, and alignment with international best practices.

The Brčko District represents a distinct legal unit with its own tourism-related regulations, further contributing to the overall fragmentation of the tourism legal framework in Bosnia and Herzegovina.<sup>4</sup> Although the District has adopted laws and bylaws regulating hospitality and tourism services, coordination with entity-level legislation remains limited.

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<sup>2</sup> The Law on Tourism Activity is the official legal act regulating the performance of tourism activities in the Federation of Bosnia and Herzegovina, published in the Official Gazette of the Federation of Bosnia and Herzegovina, No 32/9 (2009). This Law also regulates types of tourism services, conditions and manner of providing tourism services and rights and obligations of entities operating in tourism sector.

<sup>3</sup> Law on Tourism-Republika Srpska published in the Official Gazette of Republika Srpska, No.45/2017, with later amendments (16/23)

<sup>4</sup> The Law on Tourism in Brčko District of Bosnia and Herzegovina is the main legal act regulating the organization and conditions for providing tourism-related services and activities within Brčko District. The law was adopted by the Assembly of Brčko District on the basis of Article 23 of the District Statute.

Across all administrative levels, tourism-related legislation typically covers areas such as classification and categorization of accommodation facilities, registration of tourism service providers, tourist fees, consumer protection, and inspection supervision. However, inconsistencies in definitions, standards, and procedures persist, limiting the efficiency and competitiveness of the tourism sector. Additionally, environmental protection, spatial planning, cultural heritage preservation, and labor regulations-although not tourism-specific-play a significant role in shaping tourism development and are governed by separate legal regimes (Law on Environmental Protection of the Federation of Bosnia and Herzegovina, 2003; Law on Environmental Protection of Republika Srpska, 2012). Overall, the tourism legal framework in Bosnia and Herzegovina reflects the broader governance challenges of the country. While decentralization allows for local adaptation to specific tourism potentials, the lack of legislative harmonization and strategic coordination constrains the sector's development. Strengthening intergovernmental cooperation, improving legal coherence, and aligning domestic legislation with European Union standards are essential steps toward creating a more functional and competitive tourism regulatory environment.

In the Federation of Bosnia and Herzegovina (FBiH), tourism regulation has historically been governed by the Law on Tourist Activity, which sets out provisions on tourism service providers and related activities. Because the FBiH Law on Tourist Activity has limitations and does not address broader strategic development or planning, federal authorities have worked on a new draft *Law on Tourism*, which was proposed to more comprehensively regulate planning, development, tourism promotion, operators, and registration systems across the Federation.

This proposed law outlines how tourism planning and development, financing, promotional activities, tourist subjects (travel agencies and guides), and tourist boards are to be regulated in the Federation.

Within the Federation of Bosnia and Herzegovina, cantons also have their own tourism laws due to the division of competencies between the Federation and cantons in the FBiH Constitution. For example, the Law on Tourism of Sarajevo Canton<sup>5</sup> was recently adopted to regulate tourism activities, licensing, tourism offices, rural tourism, and tourist taxes within the canton, filling gaps created by the absence of harmonized federal tourism legislation.

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<sup>5</sup> The Law on Canton Sarajevo is a cantonal legal act that regulates tourism activities within the territory of Canton Sarajevo. It establishes the legal framework for the development, organization and supervision of tourism in the canton.

In addition to primary tourism legislation, numerous indirect legal regimes impact tourism development. These include laws on spatial planning, environmental protection, cultural heritage preservation, and consumer protection, which influence tourism investment, infrastructure development, and service quality. Furthermore, regulations governing inspection supervision and taxation of tourism services (local accommodation taxes) play a significant role in the operational environment of tourism businesses.

The fragmented legal framework across different levels of authority creates challenges for stakeholders and potential investors, as regulatory requirements may vary significantly between jurisdictions. The lack of harmonization affects consistency in service standards, inspection practices, and strategic planning. Harmonizing tourism legislation and establishing clearer institutional coordination-particularly through the adoption of unified laws or strategic frameworks-would help align Bosnia and Herzegovina's legal framework with international norms and enhance competitiveness in the global tourism market.

## **EU LEGAL FRAMEWORK – KEY PROVISIONS RELEVANT TO TOURISM**

Tourism represents one of the most significant economic sectors of the European Union, with a direct and indirect impact on employment, regional development, and the internal market. Although tourism remains primarily within the competence of the Member States, the European Union has developed a complex legal framework that significantly affects its functioning. This paper analyses the key EU legal provisions relevant to the tourism sector, with particular emphasis on treaty foundations, consumer protection, internal market freedoms, transport law, sustainable development, and digital regulation.

The legal basis for European Union action in the field of tourism is established in Article 195 of the Treaty on the Functioning of the European Union (Treaty on the Functioning of the European Union, 2012). This provision grants the EU competence to support, coordinate, and complement the actions of the Member States in tourism, without the power to harmonise national legislation. EU action aims to enhance the competitiveness of the tourism sector, promote sustainable tourism, and encourage cooperation among Member States. This approach reflects the subsidiary nature of EU tourism policy.

Tourism is closely linked to the functioning of the EU internal market. The freedom to provide services (Articles 56–62 TFEU) allows tourism-related entities—such as hotels, travel agencies, and tour operators—to operate legally across the Union. The freedom of establishment (Article 49 TFEU) further enables tourism businesses to set up operations in other Member States under equal conditions. In addition, the free movement of persons has a direct impact on tourism by enabling EU citizens to travel freely within the Union.

Consumer protection is one of the most developed areas of the EU legal framework affecting tourism. Of particular importance is Directive (EU) 2015/2302 on package travel and linked travel arrangements, which strengthens travellers’ rights regarding information, contract termination, refunds, and protection in the event of the insolvency of tour operators. Furthermore, the Consumer Rights Directive (2011/83/EU) and the Unfair Commercial Practices Directive (2005/29/EC) contribute to transparency and fair business practices in the tourism sector.

The efficiency of tourism depends on a well-regulated transport system. The EU has adopted a range of legal instruments guaranteeing passenger rights, most notably Regulation (EC) No 261/2004 on air passenger rights. Similar legal protections exist for rail, bus, and maritime transport. These rules ensure a high level of passenger protection and enhance trust in cross-border travel within the EU.

Sustainable tourism constitutes a strategic objective of the European Union. Legal instruments such as the Environmental Impact Assessment Directive (2011/92/EU) and the Habitats and Birds Directives (Natura 2000) significantly influence the planning and development of tourism infrastructure. Through the European Green Deal, the EU promotes environmentally responsible forms of tourism, balancing economic growth with the protection of natural resources.

The growth of digital platforms and online booking systems has led to the application of the General Data Protection Regulation (GDPR) in the tourism sector. This regulation obliges tourism-related entities to manage travellers’ personal data lawfully and transparently. In addition, emerging EU digital legislation affects the operation of online tourism intermediaries and accommodation booking platforms.

On this basis, the following conclusion can be drawn- the EU legal framework relevant to tourism is a fragmented yet functionally coherent system of rules that indirectly but significantly shape the tourism sector. Although the EU does not possess exclusive competence in tourism, it establishes a stable and predictable legal environment through internal market freedoms, consumer protection, transport law, environmental standards, and digital regulation. This approach enables the sustainable development of tourism while respecting the national specificities of the Member States.

This legal framework should serve as a positive model and provide guidance for Bosnia and Herzegovina in the development of tourism-related legislation.

### **COMPARATIVE ANALYSIS: BiH vs EU LEGAL NORMS**

The European Union exercises a supporting and coordinating competence in tourism under Article 195 TFEU, while Member States retain primary legislative authority. In contrast, Bosnia and Herzegovina has a highly fragmented constitutional structure, where tourism-related competences are divided among the Entities (Federation of BiH and Republika Srpska), cantons, and the Brčko District. The absence of a state-level tourism law in BiH leads to legal inconsistency and uneven standards, whereas the EU framework promotes coordination and coherence across Member States.

EU tourism law provides a high level of consumer protection, particularly through Directive (EU) 2015/2302 on package travel and linked travel arrangements. This directive ensures clear contractual rights, refund mechanisms, and insolvency protection for travellers.

In BiH, consumer protection in tourism exists but is less comprehensive and unevenly implemented. Entity-level regulations partially address package travel, yet insolvency protection and cross-border enforcement remain underdeveloped. Consequently, tourists in BiH enjoy a lower and less predictable level of legal protection compared to EU standards.

Within the EU, tourism service providers benefit from freedom of establishment and freedom to provide services, enabling cross-border operation under harmonised internal market rules. In BiH, market access is subject to administrative barriers, multiple licensing regimes, and divergent entity-level rules, which complicate the operation of tourism businesses and discourage foreign investment. Unlike the EU, BiH lacks a unified legal framework ensuring equal conditions for service providers across the entire territory.

EU law provides uniform passenger rights across all Member States through directly applicable regulations, particularly in air, rail, and maritime transport. BiH has adopted certain international and European transport standards, but passenger rights are not regulated at a comparable level of detail or enforcement. The absence of comprehensive national mechanisms for compensation and assistance limits traveller confidence and legal certainty. The EU integrates sustainability into tourism regulation through binding environmental directives and strategic policies such as the European Green Deal (European Commission, 2019).

Tourism development must comply with environmental impact assessments and nature protection regimes. In BiH, environmental legislation exists but its implementation is inconsistent, and tourism-related projects are not always subject to rigorous environmental assessment. Compared to EU norms, sustainability considerations in BiH tourism law remain fragmented and insufficiently enforced.

The EU applies a uniform and robust data protection regime under the GDPR, which significantly affects tourism operators and digital booking platforms. BiH has adopted data protection legislation inspired by EU standards, but institutional capacity and enforcement mechanisms remain limited, resulting in partial alignment with EU digital and data protection norms.

The table below presents a concise comparative overview of the European Union's legal framework and practice and the actual state of affairs in Bosnia and Herzegovina.

**Tab. 1.** Comparative overview of the tourism legal framework: EU norms vs. Bosnia and Herzegovina

<b>Dimension</b>	<b>EU Norms/ Best Practices</b>	<b>Situation in BiH</b>	<b>Gap / Issues</b>
<b>Consumer protection (package travel, linked arrangements)</b>	Strong protection under EU directives; legally binding across member states.	BiH has laws on travel services/package contracts, but implementation and clarity may vary.	Gaps in enforcement; possibly lack of clarity in definitions;
<b>Institutional coordination &amp; unified tourism body</b>	EU member states often have national tourism boards / single ministries that coordinate promotion, regulation.	BiH lacks a single state-level tourism law or unified tourism authority. Entities have their own laws.	Fragmentation; overlap; no coherent national strategy.
<b>Sustainability / green certification</b>	EU is pushing green transition; sustainability as part of tourism regulation.	BiH has some EU-funded projects for certification;	Needs stronger legal obligation and more legal involvement
<b>Standardization of services, classifications, inspections</b>	EU norms require minimum standards; regular oversight; consumer expectations.	BiH has classification systems, regulations, but sometimes uneven across entities; inspections might be inconsistent.	Variation; possibly weaker enforcement; resource constraints.

The comparative analysis demonstrates that while the EU has developed a coherent and integrated legal framework for tourism, Bosnia and Herzegovina continues to face structural, legal, and institutional challenges. The EU model offers valuable guidance for BiH, particularly in strengthening consumer protection, ensuring market coherence, enhancing sustainability, and improving legal certainty.

Alignment with EU tourism-related legal norms would contribute to increased competitiveness, higher tourist confidence, and long-term sustainable development of the tourism sector in Bosnia and Herzegovina.

## **CONCLUSION**

Bosnia and Herzegovina's complex political system frequently impedes efficient decision-making. The intricate administrative structure, comprising two entities (the Federation of Bosnia and Herzegovina and Republika Srpska) and the Brčko District, results in institutional fragmentation and delays, including in matters concerning tourism and environmental protection.

The analysis indicates that there are significant differences between the legal framework of the European Union and the existing regulations in Bosnia and Herzegovina, particularly in the areas of consumer protection, passenger rights, sustainable development, environmental protection, and institutional coordination (Stabilisation and Association Agreement between Bosnia and Herzegovina and the European Union, 2008; Council of Ministers of Bosnia and Herzegovina, 2023). Although certain laws and policies in Bosnia and Herzegovina are partially aligned with the EU *acquis*, their implementation is often limited due to institutional weaknesses and the lack of a unified strategic approach.

In the context of the European integration process, the alignment of Bosnia and Herzegovina's legislation with European Union legal norms represents a necessary step toward the modernization of the tourism sector. Harmonisation with EU standards can contribute to strengthening legal certainty, improving the protection of tourists, encouraging investment, and fostering the development of sustainable tourism. Therefore, it is necessary to intensify legislative reforms, enhance inter-institutional cooperation, and ensure the consistent implementation of adopted regulations in order for tourism in Bosnia and Herzegovina to become more competitive and sustainably developed in line with the European legal and development framework.

Based on the conducted analysis, it can be concluded that it is necessary to undertake a series of legislative and institutional measures in order to improve the legal framework for tourism in Bosnia and Herzegovina.

First and foremost, the adoption of a unified and comprehensive Tourism Law at the state level is recommended, or alternatively, the establishment of legal mechanisms ensuring effective coordination between the entities, the Brčko District, and the competent state-level institutions. Such an approach would contribute to greater legal

certainty and the harmonisation of standards throughout the entire territory of Bosnia and Herzegovina.

Furthermore, it is necessary to conduct a comprehensive review of the alignment of domestic legislation with the European Union acquis, in order to determine whether all relevant EU directives in the fields of tourism, consumer protection, transport, and environmental protection have been fully transposed into the legal system of Bosnia and Herzegovina. In cases where transposition has not been carried out or remains partial, appropriate legislative solutions should be drafted and adopted.

Particular attention should be devoted to strengthening institutional capacities, including the establishment or empowerment of a national tourism body with a coordinating role in promotion, regulation, standardisation, and the strategic development of tourism across all levels of governance. At the same time, it is essential to improve mechanisms of supervision and enforcement by reinforcing inspection authorities, increasing their resources, and ensuring the consistent application of regulations related to classification, hospitality standards, and consumer protection.

In the context of contemporary development trends, it is important that the legislative framework more strongly integrates the principles of sustainable tourism, including mandatory environmental protection measures, green certification schemes, and responsible management of natural resources as integral components of tourism legislation. Moreover, the process of adopting and implementing laws should be based on the active involvement of relevant stakeholders, such as the private sector, local communities, and non-governmental organisations, while simultaneously raising awareness of the rights and obligations of all participants in the tourism sector.

Finally, the establishment of a systematic mechanism for monitoring, evaluation, and data collection in the field of tourism is recommended through clearly defined legal obligations. Reliable and comparable data would enable an objective assessment of the effects of existing regulations and serve as a foundation for further adaptation and improvement of public policies in line with the European Union's development objectives and standards

## REFERENCES

1. Federation of Bosnia and Herzegovina (2009) Law on Tourism Activity of the Federation of Bosnia and Herzegovina, Official Gazette of the Federation of Bosnia and Herzegovina, 65/9
2. Republika Srpska (2017) Law on tourism of Republika Srpska, Službeni glasnik Republike Srpske, 45/17
3. Brčko District of Bosnia and Herzegovina (2006) Law on Tourism, Official Gazette of Brčko District of Bosnia and Herzegovina
4. Law on Tourism of Canton Sarajevo. (2016). Official Gazette of Canton Sarajevo, 19/16
5. Hall, C.M. (2008). Tourism Planning: Policies, Processes and Relationships. Harlow: Pearson Education.
6. Federation of Bosnia and Herzegovina (2023) Tourism Development Strategy for Federation of Bosnia and Herzegovina 2022-2027. Federal Ministry of Environment and Tourism.
7. Federation of Bosnia and Herzegovina (2003) Law on Environmental Protection of the Federation of Bosnia and Herzegovina, Official Gazette of the Federation of Bosnia and Herzegovina, 33/03.
8. Republika Srpska (2012) Law on Environmental Protection of Republika Srpska, Official Gazette of the Republic of Srpska, 71/12.
9. Treaty on the Functioning of the European Union (TFEU). (2012)
10. European Parliament and Council (2015) Directive (EU) 2015/2302 on package travel and linked travel arrangements. Official Journal of the European Union.
11. European Parliament and Council (2011) Directive (EU) 2011/83 Council on consumer rights
12. European Commission (2019) The European Green Deal. 640 final, Brussels.
13. Council of Ministers of Bosnia and Herzegovina (2019) Programme of Reforms of Bosnia and Herzegovina for EU Intergration. Sarajevo.
14. European Union and Bosnia and Herzegovina (2008) Stabilisation and Association Agreement between the European Communities and their Member States and Bosnia and Herzegovina. Official Journal of the European Union.
15. United Nations World Tourism Organization. (2017). UNWTO Framework Convention on Tourism Ethics. Madrid: UNWTO.

# CONSIDERATION OF TOURISM DEVELOPMENT AND ENVIRONMENTAL DEGRADATION IN THE SANICA RIVER VALLEY (NORTHWEST BOSNIA AND HERZEGOVINA)

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DOI: 10.35666/25662880.2025.11.163

UDC: 338.48:502(497.6-16)

**Abstract:** In recent years, Bosnia and Herzegovina has experienced a significant increase in the number of tourists. Many of the main tourist attractions are associated with rivers, particularly those in karst areas characterized by waterfalls and cascades. In tourism promotion, rivers are often presented as unique, untouched, and wild environments. However, increasing environmental degradation has been observed, primarily as a result of uncoordinated spatial planning, hydrotechnical interventions, and weak institutional control in river corridors that are simultaneously promoted as tourist attractions. On many rivers, despite representing primary tourism resources, riverbanks and riverbeds have been severely degraded within a relatively short period. This issue is especially evident along rivers such as the Una and Pliva, where environmental activists have initiated actions aimed at their protection, although other watercourses have also experienced significant degradation.

This paper focuses on the Sanica River, located in the municipalities of Ključ and Sanski Most, whose course has been exposed to strong anthropogenic pressure in recent years. In certain sections, large retaining walls and embankments have been constructed, weekend houses built, artificial dams erected, trees removed, and illegal waste disposal sites formed. The aim of this paper is to highlight the consequences of uncoordinated spatial management and inconsistent environmental policies, as well as their implications for tourism development and the degradation of major tourist attractions. The purpose is to encourage all relevant stakeholders and institutions to take greater responsibility for environmental protection and to promote a more balanced and sustainable development of tourism. The research methodology includes remote sensing and repeat photography, among other methods. The first part of the paper provides an overview of previous research and outlines the specific characteristics of the Sanica River, while the second part focuses on tourism development and environmental degradation.

**Keywords:** tourism development, environmental degradation, karst, tufa, Sanica River, Bosnia and Herzegovina

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## INTRODUCTION

In recent years, global interest in tourism has been increasing, particularly in forms of tourism related to nature. Bosnia and Herzegovina is recognized as a country of great natural diversity and rich cultural and historical values that attract a growing number of tourists. Considerable effort is being invested in promoting tourist destinations and developing tourism infrastructure, and tourism has been recognized as a strategic branch of the economy in many regions. However, due to the absence and ineffective implementation of tourism development plans—beyond a declarative level—uncoordinated and ad hoc spatial development is taking place, in which individual actors play a dominant role and often use space and natural resources in ways that are not aligned with broader public interests. In addition to limiting economic benefits for public institutions, such practices result in environmental degradation and contribute to the creation of a negative image of tourist destinations.

Some of the most important tourism resources, particularly rivers—especially those in karst areas characterized by cascades, waterfalls, and rapids—are exposed to strong anthropogenic pressures. These pressures are primarily associated with uncoordinated spatial management, hydrotechnical interventions, weak institutional oversight, and non-compliance with environmental regulations. As a result, numerous examples of riverbank encroachment, riverbed degradation, and deterioration of water quality have been recorded. Due to insufficient institutional response, as well as irresponsible actions by individuals, accelerated degradation is occurring, posing a risk of the loss of the natural and environmental values for which these rivers are recognized as important tourism resources.

The most pronounced problems have been observed on the Pliva and Una rivers, whose preservation and protection have been the subject of intensive environmental campaigns. This paper presents the main forms of environmental degradation and provides a critical review of official narratives on tourism development and environmental protection, which are often inconsistent with the actual situation in the field. Special focus is placed on the example of a smaller karst river in northwestern Bosnia and Herzegovina—the Sanica River—whose protection has received limited attention despite clear and increasing threats to its natural values, even though it represents an exceptionally important natural and landscape resource.

## SOME CHARACTERISTICS AND VALUES OF THE SANICA RIVER

The Sanica River is located in northwestern Bosnia and Herzegovina, within the territories of the municipalities of Ključ and Sanski Most. Due to its water discharge, the morphological specificities of its valley and course, as well as the length of its flow, it is considered the most important tributary of the Sana River. It is approximately 22 km long, with an average discharge of about 14.8 m<sup>3</sup>/s. The river springs at the foothills of Mount Grmeč, at the contact with the Sanica Basin, from three powerful karst springs situated at elevations between approximately 220 and 240 meters above sea level. The springs are located at the contact between Jurassic–Cretaceous limestones and Permo-Triassic clastic rocks, which form the basal and lateral hydrogeological barrier and condition the discharge of underground water accumulations from the areas of Mount Grmeč and Bravsko Polje, which largely constitute the catchment of these springs. In terms of water quantity, the most significant spring is Pećina (more commonly known as the Sanica Spring, the main source). Upstream from this spring are large periodic springs, Jasenak and the Sanica Lake. In the upper course near Donji Budelj, the Korčanica River flows into the Sanica; it also originates from several springs, and due to the proximity of its sources to those of the Sanica, as well as the appearance of the spring zones and springs themselves, the Korčanica spring area is considered part of a wider spring zone of the Sanica. The Korčanica contributes a significant amount of water, which also originates from the areas of Mount Srnetica and Bravsko Polje. In addition to the Korčanica, there are numerous smaller tributaries—the Sanička River, Trebunj, Biljanska River, and Glibaja (Temimović, 2009; Temimović & Džaferagić, 2016.)

Due to the gentle longitudinal gradient, a large part of the river course is impounded, and the Sanica exhibits characteristics of a lowland river. Only a smaller section of the course through the Sanica Basin, up to the settlement of Donji Budelj, shows features typical of upper-course streams— a narrow channel, dominant vertical erosion, and predominantly bedload sediment transport. The middle and lower courses, from Donji Budelj to the confluence of the Sanica with the Sana near Vrhpolje, are characterized by an alternation of valley widenings—basins—and constrictions—gorges and canyons. In the lower course, the riverbed is wide and features numerous tufa barriers, behind which the water is impounded. Moreover, these tufa barriers host numerous cascades and waterfalls, giving this part of the river special landscape values and making the Sanica a typical tufa-forming karst river.

Hydrological, hydromorphological, hydrogeological, and hydrobiological studies conducted to date indicate characteristics and specificities typical of karst watercourses. One such specificity is the large fluctuation in discharge. Maximum recorded discharges (around 330 m<sup>3</sup>/s) exceed average—and especially minimum—discharges (0.8 m<sup>3</sup>/s) by several tens of times (Projekat zaštite izvorišta vode za piće Sanica, 2005; Hidrološki godišnjak: knjiga 1, 2017). Another specificity is the high proportion of dissolved magnesium in the river water, due to the presence of dolomitic rocks in the catchment, which is considered one of the key factors for tufa deposition in the riverbed.

Tufa itself is another distinctive feature, particularly because in the lower course it occurs in large masses, forming numerous cascades and playing an ecological role in regulating water levels (Spahić et al. 2000). The cascades and rapids formed on tufa give the watercourse special landscape values that greatly contribute to the tourism value of the Sanica, while the ecological role—through the regulation of water levels and discharge, i.e., the impoundment of the river course—is reflected in the provision of favorable conditions for plant and animal life during dry summer periods. Another specificity of the Sanica's course and valley is the presence of relict and endemic plant and animal species in its valley (the spring zone, gorges, and within the river itself).

Its natural values have attracted many visitors, particularly anglers engaged in fly fishing. National fly-fishing championships are regularly held on the Sanica and Korčanica rivers, and it is important to note that the Sanica has repeatedly served as a venue for the Premier League of Bosnia and Herzegovina in fly fishing, as well as hosting the World and European Fly Fishing Championships in 2010.

## **RESEARCH METHODOLOGY AND DATA SOURCES**

The research methodology includes the collection, analysis, and critical evaluation of the results of previous studies. These are mainly related to projects on the sanitary protection of water sources, periodic reports on the chemical and biological quality of water, meteorological and hydrological observations of discharge and river water temperature, scientific articles, and especially expert works of a synthetic character covering broader geographical and thematic units.

As the focus of this paper is on recording hydromorphological changes (since these are the most visible, directly affect tourism values, and contribute to environmental degradation), the methods of remote sensing and repeat photography were applied. The remote sensing method involved the use of satellite imagery from the Google Earth service available for the period from 1985 to August 2023. It was used to monitor the destruction of tufa barriers, i.e., tufa waterfalls.

The repeat photography method refers to the comparison of photographs taken during field surveys of the river and was also used to assess the destruction of tufa waterfalls as well as the riverbed in certain sections of the course. Furthermore, GIS technology was used for data storage and spatial organization. In addition, in order to consider official governmental positions on tourism and the environment and to compare them with the actual situation, an analysis of strategic documents from different levels of government was included. These included water management plans, statistical yearbooks, statistical data from angling associations, cadastral land records, population bulletins, economic development strategies, and laws on water, the environment, agricultural land, spatial planning and construction, etc.

In the context of monitoring hydromorphological changes as well as environmental policies, media articles related to activists' opposition to hydrotechnical works and river regulation were also used, particularly those concerning the regulation of the Sanica River channel from the settlement of Vrelo to the settlement of Donji Budelj during 2021.

## **RESULTS AND DISCUSSION**

### **Tourism Development**

Official statistics do not record the number of tourists, the duration of their stay, or the motives for their visits, and therefore it is not possible to confidently speak about quantitative indicators of tourism development. However, based on indicative indicators—including field observations, conversations with local residents and owners of hospitality establishments, and the number of one-day fishing permits issued by fishing associations—there is a noticeable increase in the number of tourists in the Sanica River valley.

Indirect indicators also include an increase in accommodation capacities and the number of hospitality establishments. During the summer, four to five restaurants operate periodically in the Sanica valley, along with several bungalows and weekend accommodation facilities for tourists. Most tourists are foreigners from Central and Western Europe, as well as visitors from the countries of the former Yugoslavia. The main motive for visiting is fishing, primarily fly fishing on the Sanica River. For this purpose, fishing areas have been established, and the local authorities of the Ključ municipality have recognized the Sanica as one of the main tourist attractions.

Overall, it can be said that the number of tourists in the Sanica valley has noticeably increased over the past few years. Accordingly, there has also been an increase in

accommodation and hospitality capacities. Tourism activities are primarily focused on fishing and river-related activities.

Although there is growth in tourism activities, observed environmental degradation limits the tourist potential of the Sanica River. Construction of facilities, riverbed regulation, and other interventions affect the natural environment and reduce the quality of the visitor experience. These findings indicate the need for coordinated tourism planning and the protection of natural resources.

### **Environmental Status**

The assessment of the environmental status of the Sanica River includes hydromorphological changes, flow variations, water quality changes, and other indicators. In this study, the focus is limited to hydromorphological changes, as they are the most visible and directly related to the river's tourism value.

Research indicates that at 25 locations between 2010 and 2025, significant changes were recorded in the riverbed and along the banks, including concrete embankments, deepening and narrowing of the riverbed, construction of small dams, disposal of municipal waste near the banks, and increased erosion due to tree cutting. Larger works, including riverbed regulation and the construction of embankments, are particularly visible along the stretch from the settlement of Vrelo to Donji Budelj (Fig. 1.). The impact of individual activities, although limited to smaller areas, significantly degrades the riverbed and surrounding environment due to the number of affected locations. One example of individual impact on riverbed degradation is the construction of stone walls and the destruction of the waterfall along the right bank of the Sanica River, between Vrhpolje and Hrustovo (Fig. 3. and 4.). Similarly, the middle course of the river is affected by large deposits of municipal and construction waste, particularly at the Kordići site (Fig. 2.).



- Fig. 1.** (top left): Riverbank embankments on the Sanica River near the settlement of Donji Budelj;
- Fig. 2.** (top right): Municipal and construction waste dump at the Kordići site, located directly along the Sanica River;
- Fig. 3.** (center left): Stone wall and damaged part of the waterfall on the Sanica River near the settlement of Vrhpolje;
- Fig. 4.** (center right): Position of the riverbank (yellow line) and the stone wall in the Sanica riverbed (red line), according to cadastral data from the Federal Geodetic Administration;
- Fig. 5.** (bottom left): Waterfall at the mouth of the Sanica into the Sana with approximate position (yellow line) before collapse. Photographed in summer 2025;
- Fig. 6.** (bottom right): Changes in the morphology of the waterfall from 2011 (before the downstream Sana riverbed regulation) to 2025, based on Google Earth satellite images.

These findings indicate that tourism activities themselves are not the primary drivers of hydromorphological degradation, but rather that tourism is affected by the consequences of poorly planned hydraulic engineering works and inadequate institutional governance.

Anthropogenic hydromorphological changes are most often associated with hydraulic engineering works aimed at regulating the flow, preventing floods, providing easier access to the river, or expanding parcels. Expert and scientific opinions indicate that most of these changes lead to environmental degradation. Some segments of the local population perceive these works positively, particularly when the riverbed is channeled and concreted, which highlights the need to raise awareness about the ecological values of the river. Examples of significant changes include the regulation works on the Sana River in Tominsko Polje (2013), which led to altered hydrodynamics and accelerated deep erosion, causing the deterioration of the travertine barrier and waterfall at the mouth of the Sanica (Fig. 5. and 6.). These works also included the construction of retaining walls and the illegal disposal of waste by local residents, further contributing to environmental degradation.

These results indicate that responsibility for hydromorphological changes was partially borne by both individuals and institutions in charge of water management. The lack of coordination and oversight resulted in interventions that, although technically justified, had a negative impact on the natural values of the river.

### **Environmental Impact on Tourism**

It is a logical and well-known fact that the degradation of the riverbed and travertine barriers reduces the tourist value of the river. Since rivers generally represent complex and complementary tourist attractions, it is clear that river degradation also affects the value of other attractions.

The connection between the environment and tourism is evident in the following way: while tourism depends on a preserved natural environment, unplanned and degrading interventions reduce the attractiveness of the destination. The findings indicate the need for an integrated management strategy for the Sanica River, which includes planning and monitoring hydraulic engineering works, controlling waste disposal, and educating the local population about the importance of preserving natural values. This chapter confirms that sustainable tourism development cannot exist without the protection of natural resources, especially in travertine-forming rivers such as the Sanica.

## CONCLUSION

The analysis of the relationship between tourism and the environmental status of the Sanica River shows that the local population largely lacks awareness of the river's ecological value, while inspection services often fail to sanction improper waste disposal and illegal construction within the riverbed.

Although tourism is often perceived as a pressure factor, the results of this study show that the main drivers of environmental degradation in the Sanica River valley are hydrotechnical interventions and institutional shortcomings, while tourism largely suffers the consequences of these processes. Official positions of actors at all levels of government are focused on tourism development and positioning tourism as a strategic economic sector. However, intensive negative anthropogenic activities lead to river degradation, which calls into question the objectivity and effectiveness of these positions and intentions.

By comparing various data sources, official narratives, and the actual situation in the field, it can be concluded that the Sanica River is experiencing accelerated environmental degradation through negative hydromorphological changes. In practice, this means a reduction in the river's tourist value, which contradicts the official narratives portraying the Sanica as one of the main tourist attractions in the municipalities of Ključ and Sanski Most.

The main causes of negative environmental impacts are:

- unplanned construction of buildings directly along the river and, consequently, poor solutions for flood management (deepening of the riverbed, construction of embankments),
- non-compliance with nature protection regulations in the use of concession rights for fish farms (deepening and changes in the riverbed),
- institutional negligence and actions that contradict the objectives established in strategic documents.

A particular problem is the lack of awareness of the natural values of the watercourse, which is evident in the planning of river regulation works solely from a hydraulic engineering perspective, without considering the ecological and other values of the river.

It is concluded that tourism development and environmental protection must be aligned. Examples of the degradation of the Sanica River, resulting from non-enforcement of laws and irresponsible institutional actions, should serve as a warning and incentive for all actors to consistently apply existing laws and plans. The Sanica River represents a complex and complementary tourist resource that, with appropriate protection measures and sustainable development, can bring significant economic and ecological benefits.

## REFERENCES

### Literature:

1. Spahić, M., et al., 2000. Sedra rijeke Une i Una bez sedre. Bihać: Privredna komora Unsko-Sanskog kantona – Društvo “Unski smaragdi”.
2. Lučić, I., 2023. K bosanskom oceanu: Kratki ogledi o percepciji prirode u Bosni i Hercegovini. Zagreb-Sarajevo: Centar za krš i speleologiju – Synopsis doo.
3. Milašinović, Z., Zovko, D. & Lukić, I., 2010. Sanacija korita i vodopada na rijeci Plivi u Jajcu. *Građevinar*, 62(8), pp.723-729.
4. Rudarski institut, 2005. Projekat zaštite izvorišta vode za piće Sanica, općine Bosanski Petrovac i Ključ. Tuzla: Rudarski institut.
5. Temimović, E., 2009. Rijeka Sana – potamološka studija. Ključ: Goldprint.
6. Temimović, E. & Džaferagić, A., 2016. Reljefna obilježja sliva rijeke Sanice. *Acta geographica Bosnia et Herzegovinae*, 3(6), pp.53-67.
7. Temimović, E. & Džaferagić, A., 2017. Hidrogeološka kategorizacija terena u slivu rijeke Sanice. *Acta geographica Bosniae et Herzegovinae*, 4(8), pp.47-62.

### Sources:

1. Federalni hidrometeorološki zavod, Agencija za vodno područje rijeke Save & Agencija za vodno područje Jadranskog mora, 2020. Hidrološki godišnjak: knjiga 1: hidrologija. Sarajevo: Federalni hidrometeorološki zavod.
2. Općina Sanski Most, 2005. LEAP - Local Environmental Action Plan Sanski Most. Sanski Most: Općina Sanski Most.
3. Federalni zavod za statistiku, 2024. Statistički godišnjak/ljetopis Federacije Bosne i Hercegovine: 2024. izdanje. Sarajevo: Federalni zavod za statistiku.
4. Općina Ključ, 2021. Strategija razvoja općine Ključ 2014-2023: Revidirana strategija razvoja općine Ključ 2021-2027. Ključ: Jedinostveni općinski organ uprave općine Ključ.
5. Razvojna agencija Unsko-Sanskog kantona, 2020. Strategija razvoja Unsko-Sanskog kantona 2021-2027. Bihać: Razvojna agencija Unsko-Sanskog kantona.
6. Federalni zavod za statistiku, 2024. Unsko-Sanski kanton u brojkama. Sarajevo: Federalni zavod za statistiku.

7. Službene novine Federacije BiH, 2006. Zakon o vodama, br. 70, pp.7624-7653.
8. Službene novine Federacije BiH, 2021. Zakon o zaštiti okoliša, br. 15, pp.109-134.

Online sources:

1. CZZS, 2023. Čuvari Sanice i Korčanice ne smiju ostati usamljeni. [online] Available at: <https://czzs.org/cuvari-sanice-i-korcance-ne-smiju-ostati-usamljeni/> [Accessed 15 Dec. 2025].
2. Impulsportal, 2021. Ekološki aktivisti: investitor nema dozvolu za radove na Sanici. [online] Available at: <https://impulsportal.net/zivotna-sredina/ekoloski-aktivisti-investitor-nema-dozvolu-za-radove-na-sanici> [Accessed 15 Dec. 2025].
3. BHRT, 2025. Sanica – selo velikog turističkog potencijala. [online] Available at: <https://www.bhrt.ba/sanica-selo-velikog-turisticko-potencijala> [Accessed 15 Dec. 2025].
4. Katastar.ba, n.d. Orthophotos and cadastral data. [online] Available at: <https://www.katastar.ba/> [Accessed 15 Dec. 2025].
5. Slobodna Bosna, 2025. Zločin nad prirodom: u strahu za vodopad i sedru rijeke Plive, Jajčani hitno traže inspekciju zbog radova na obalama Plive. [online] Available at: [https://www.slobodna-bosna.ba/vijest/349122/zlochinnadprirodomustrahu\\_zavodopad\\_iseдру\\_rijekeljajchanihitnotrazeinspekcijuzbogradovanaobalamplivefoto.html](https://www.slobodna-bosna.ba/vijest/349122/zlochinnadprirodomustrahu_zavodopad_iseдру_rijekeljajchanihitnotrazeinspekcijuzbogradovanaobalamplivefoto.html) [Accessed 15 Dec. 2025].
6. Žurnal, 2021. Uređivali rijeku zbog poplava pa uništili floru i faunu. [online] Available at: <https://zurnal.info/clanak/uredivali-rijeku-zbog-poplava-pa-unistili-floru-i-faunu/24515> [Accessed 15 Dec. 2025].

# BETWEEN TRADITION AND TOURISM: THE ROLE OF BJELAŠNICA'S CULTURAL HERITAGE IN SHAPING THE TOURISM SUPPLY

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DOI: 10.35666/25662880.2025.11.174

UDC: 338.48-44:398.1(497.6 Bjelašnica)

**Abstract:** Bosnian-Herzegovinian mountains are primarily recognized for winter mountain tourism, yet selective forms such as eco and rural tourism are becoming increasingly significant, especially during the summer season, with local communities playing a key role in their development. In addition to the natural advantages of the mountain area, creating a distinctive and competitive tourism product requires consideration of the anthropogenic segment of the tourism attraction base – the specific architectural and cultural heritage, as well as traditional manifestations that shape the identity of the area.

This paper focuses on Bjelašnica and Igman as a mountain area where cultural-historical heritage and traditional ways of life represent a significant but insufficiently valorized potential for sustainable tourism. Special attention is given to the elements of local culture and everyday life (traditional costumes, gastronomy, stories, legends, and customs of the local community), which are still rarely used for tourism promotion and development.

Within the area of Bjelašnica and Igman, six sites originating from different historical periods have been identified, among which the necropolis with stećci at Dolovi, inscribed on the UNESCO World Heritage List, stands out. Numerous local legends and traditional costumes, particularly in the Bjelašnica villages, form an important part of the region's identity. To enable their inclusion in the tourism supply, segments of the anthropogenic attraction base that are accessible and possess aesthetic and/or curiosity value have been analyzed and assessed for tourism valorization. The main obstacles to the more intensive development of rural and cultural tourism include weak promotion, lack of cooperation between households and destinations, insufficient knowledge of foreign languages, and limited investments.

**Keywords:** cultural heritage, Bjelašnica, rural tourism, tourism supply

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## INTRODUCTION

Among economic activities, tourism stands out for its complex interconnection with natural and cultural heritage (Coccosis, 2016), with cultural heritage having long represented a key attraction factor (Conti, 2015) and one of the most widespread resources in global tourism (Timothy, 2014). Tourism and culture are closely linked due to the growing interest in culture as a bearer of local identity in the context of globalization, the intensive development of tourism, and the increased accessibility of cultural assets and experiences (World Tourism Organization, 2018).

Cultural tourism refers to tourism activities in which visitors consume various forms of culture. It includes acquiring knowledge and exploring cultural heritage through visits to monuments, sites, museums, theatres, cultural events, and performing arts, as well as experiencing everyday lifestyles, gastronomy, traditions, and customs (Richards, 2018; Panzera et al., 2021). Tangible elements, such as monuments, buildings, and archaeological sites, and intangible assets, including oral traditions, customs, social practices, rituals, and knowledge and skills transmitted from generation to generation (UNESCO Institute for Statistics, 2009), are perceived in tourism as interconnected and mutually complementary (Esfehani, Albrecht, 2019). These heritage elements can stimulate the economy at the local, regional, and national levels and support the development of tourism and cities (Fatorić, Egberts, 2020; Lopes, Simões, 2020; Halkos et al., 2024).

Focusing on culture as an attraction of tourist interest enables the strengthening of the relationship between cultural heritage and tourism through processes of heritage conservation, the stimulation of economic growth, the improvement of tourism infrastructure, and the generation of social benefits for local communities (Cano et al., 2013; Álvarez-García et al., 2019). Tourist interest can contribute to the preservation of arts, crafts, dances, rituals, and legends that younger generations practice less frequently (World Tourism Organization, 2001). Given the great potential of cultural heritage and the fact that cultural tourism represents one of the fastest-growing segments of the tourism market (Zeppel, Hall, 1991), many destinations worldwide have launched initiatives to develop and support this field as an important component of their service economies (Timothy, 2014). Four out of ten tourists choose their travel destination based on its cultural offer (Panzera et al., 2021).

Tourist travel to mountain areas shows a continuous growth trend, as an increasing number of tourists are attracted by unspoiled natural environments, clean air, as well as authentic local traditions and culture. These travel motivations are increasingly recognized as key factors of tourism demand in contemporary mountain destinations.

The aim of this research is to identify and typologically inventory the social segment of the attraction base of the Bjelašnica and Igman mountain area, with particular emphasis on determining the most significant, that is, the most valuable cultural and

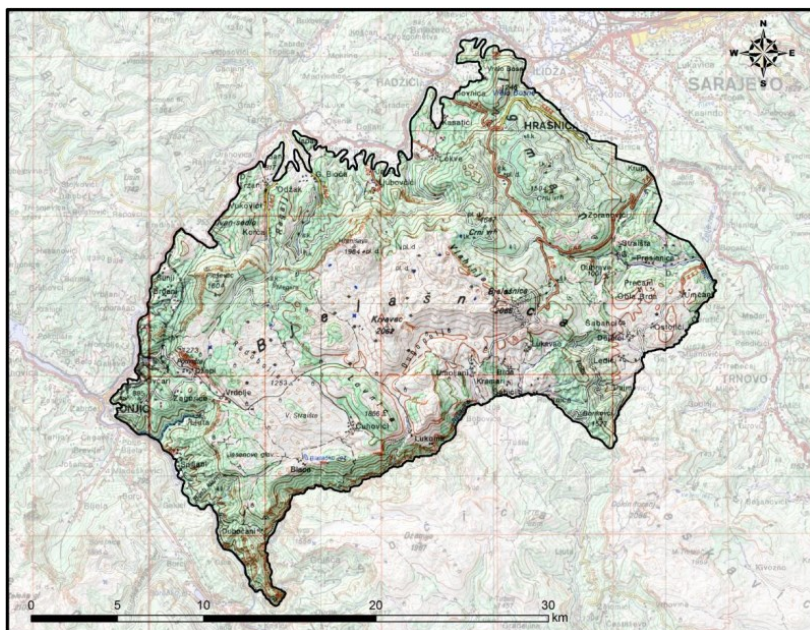
historical monuments, events, and elements of the culture of life and work. Furthermore, their role and importance in the formation and enhancement of the tourism offer of this mountain area are analyzed

## **STUDY AREA**

The mountainous area of Bjelašnica and Igman is located in the zone of the central Dinarides, that is, in the western part of the Mediterranean zone of young fold mountains. From the lowlands of the Sarajevsko polje, the northeastern, “main” part of Bjelašnica stands out clearly, although this extensive mountain massif extends continuously toward the southwest as far as Prenj, from which it is separated by the Neretva River valley (Popović, 1935).

The study area comprises two morphological units – Igman (Crni Vrh, 1,504 m) and Bjelašnica (Zvezdarnica Peak, 2,066 m above sea level) – which are interconnected by the morphodepressions of Malo and Veliko Polje, situated at elevations between approximately 1,150 and 1,300 m. According to Lepirica (2013), Igman represents a foothill step of the high-mountain massif of Bjelašnica. The northern boundary of Bjelašnica and Igman is formed by the course of the Zujevina River. On the northwestern side, the area is connected via the Ivan Saddle to Mount Bitovnja, while to the south and southeast it continues toward Visočica and Treskavica. It is partially separated from Visočica and Treskavica by the canyon of the Rakitnica River, while the western and southwestern boundaries are defined by the Neretva River valley (Fig. 1).

The highest peak of the mountain is known by several names: Bjelašnica, Zvezdarnica, and Opservatorija, after the meteorological station located at this site. Igman extends parallel to the main ridge of Bjelašnica in a southeast–northwest direction, and its plateau lies at elevations between 1,100 and 1,300 m (Mihčić, 1984).



**Fig. 1.** Geographical position of the mountain area of Bjelašnica and Igman

## **CULTURAL-HISTORICAL HERITAGE OF BJELAŠNICA**

In addition to the natural advantages of the mountain area, in order to support tourism development and create a distinctive and recognizable tourism product, it is necessary to analyze the valuable anthropogenic segment of the tourism attraction base, namely the specific architectural and cultural heritage, as well as events that shape the identity of the studied area. Particular attention should also be paid to the culture of everyday life and work of the local population (traditional costumes, gastronomy, stories, legends, and customs), which, unfortunately, is used to a very limited extent for the promotion and development of tourism in the analyzed mountain areas.

Anthropogenic elements of cultural heritage play a significant role in preserving local identity and represent an important potential for the development of selective forms of tourism, especially rural and cultural tourism. Intangible aspects of cultural heritage and traditional ways of life stand out in particular as resources with strong symbolic and interpretative value, but also as elements that remain insufficiently valorized within the contemporary tourism offer of mountain areas.

Based on the available literature, as well as decisions of the Commission to Preserve National Monuments of Bosnia and Herzegovina relating to the analyzed case studies, the monumental heritage of the Bjelašnica mountain area has been identified. Its classification was carried out in accordance with the documents of the aforementioned

state Commission, as well as relevant spatial planning documentation addressing the studied mountain areas (Tab. 1).

Table 1 clearly indicates that the studied mountain area is characterized by a rich cultural heritage originating from different historical periods. However, despite their cultural and historical value and the fact that they hold the status of legally protected national monuments, field research has revealed that some sites are neglected and damaged. As such, they are unable to fully meet the requirements of the contemporary tourism offer or to be adequately represented in the tourism promotion of this area.

**Tab. 1.** National monuments in mountain area of Bjelašnica and Igman

<b>National monument</b>	<b>Municipality/City</b>
Group of Monuments Dedicated to the Igman March	Trnovo, FBiH
<b>Lukomir Village</b> (Gornji Lukomir)	Konjic, FBiH
Umoljani Mosque	Trnovo, FBiH
Necropolis of Stećci (Medieval Tombstones) and Remains of a Medieval Structure at Dolovi, Umoljani Village	Trnovo, FBiH
Necropolis of Stećci at Han Site, Šabići	Trnovo, FBiH
Necropolis of Stećci at Kapova Selišta (Borija), Ledići Nekropola sa stećcima na lokalitetu Kapova selišta (Borija) u Ledićima	Trnovo, FBiH
Necropolis of Stećci at Ravnice, Dubočani	Konjic, FBiH
Necropolis of Stećci (Kaursko Cemetery), with Old Nišans and Remains of Walls, Prečani	Trnovo, FBiH
Necropolis of Stećci at Zlatarić, Ledići	Trnovo, FBiH
Necropolis with Stećci and Nišans, Blace Settlement	Konjic, FBiH

Events held in the Bjelašnica and Igman area are generally not sufficiently well known or popular among tourists. A large number of these events lack continuity in their organization, which further limits their tourism potential. Sports and cultural events are the most common types and attract the largest number of visitors.

One of the increasingly popular cultural events on Bjelašnica is the Javorwood Festival, which has been held since 2015 at the Javorov Dol site. This three-day festival takes place in August and plays a significant role in activating the summer tourism season in the mountain area. Its primary aim is to connect various forms of artistic expression, including painting, sculpture, theatre, pantomime, puppetry, and music, through the organization of exhibitions, performances, concerts, and outdoor events. The festival has gained growing popularity among artists and visitors from the region, as well as from the wider European area.

At the Veliko Polje site, a traditional gathering marking the commemoration of the Igman March is organized annually; in 2025, it was held for the 83rd time. As part of this event, a march is organized from Hadžići to Veliko Polje on Igman, followed by the laying of flowers at the memorial site.

Intangible cultural heritage includes stories and legends that need to be researched, documented, and thus preserved from oblivion. They are often conveyed to tourists in mountain villages, which is why they should be systematically incorporated into the tourism offer. In the mountainous area of Bjelašnica, a number of well-known legends are present, among which the legend about the origin of the names of the villages of Umljani and Studeni Potok stands out in particular.

Traditional folk costume is an important element of identity for the inhabitants of the Bjelašnica villages, especially among the Bosniak population. Women's attire, in both winter and summer variants, was worn for daily life as well as special occasions, with festive costumes being more richly decorated and complemented with a greater number of jewelry items. In the mountain villages, particularly in Lukomir, the isolation of the area has allowed life to remain largely in accordance with tradition and old customs. Traditional attitudes, especially regarding the role of women in society, are still present. The older population remembers the time when folk costumes were worn daily and when the community functioned according to traditional beliefs and practices.

## IDENTIFICATION AND TOURISM RELEVANCE OF KEY HERITAGE ELEMENTS

For the purpose of their inclusion in the tourism offer and presentation, particular attention was given to those segments of the anthropogenic tourism attraction base (cultural-historical heritage and elements of the culture of everyday life and work) that are accessible, possess aesthetic and/or curiosity value, and can be valorized for tourism purposes. The final selection of cultural-historical heritage to be included in the tourism offer was developed through an analysis of tourism promotional materials, as well as through discussions with tourists, excursionists, members of the local community, and tourism employees.

A total of six sites from different historical periods have been identified in the Bjelašnica and Igman area, all of which hold potential for tourism development. In addition to four designated national monuments, the war-time mosque and the ski jumping hills on Igman are also considered significant tourism assets.

### Necropolis of Stećci (Medieval Tombstones) and Remains of a Medieval Structure at Dolovi, Umoljani Village

Near Umoljani village lies the necropolis at the Dolovi site, which was declared a national monument in 2009. Since 2016, this necropolis has been inscribed on the UNESCO World Heritage List. The necropolis comprises 53 stećci (medieval tombstones), 11 old tombstones (nišani), and the remains of a building's foundations, spread across several locations. The stećci are shaped as slabs, chests, and sljemenjaci (gabled tombstones). Decorations are found on 12 monuments, with the most common motifs being stylized and Latin crosses, shields, swords, circles, and similar designs.<sup>4</sup> Most stećci are oriented north–south. Patsch (1902) noted that there was a church at the Crkvina site near Umoljani. Later research by Bešlagić (2004) identified the foundations of an uninvestigated building which, in his view, could have been a church. This necropolis is known to tourists and visitors due to its location, being less than two kilometers from the entrance to Umoljani village. However, there is no tourist signage, so most visitors stop out of curiosity when they see the stećci on the hill above the road or after first obtaining information about the site (Fig. 2 and Fig. 3). Unfortunately, there is no designated area for stopping vehicles along the road, and apart from an informational board installed by the Commission, no additional information is provided (Banda, 2020).

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<sup>4</sup> <https://e-trnovo.com/spomenici/> (accessed: 10 December 2025)



**Fig. 2, 3.** Dolovi Necropolis and Its Position in Relation to the Road Network  
*(Source: Photograph by Amra Banda, May 2016)*

#### Group of Monuments Dedicated to the Igman March

The area of Mount Igman played a significant role during the Wars of national liberation, as evidenced by a number of memorials located in this area. Among the most prominent are the memorial pyramid at Veliko Polje in the Municipality of Trnovo, the monument at Veliko Polje in the Municipality of Hadžići, the memorial ossuary and memorial obelisk at Brezovača in the Municipality of Hadžići, as well as the memorial obelisk at Veliko Polje within the Municipality of Hadžići. The architectural ensemble – the group of monuments dedicated to the Igman March – was proclaimed a national monument in 2014 (Commission to Preserve National Monuments of Bosnia and Herzegovina, 2014).

The most renowned memorial at Veliko Polje was erected in 1984 on the right side of the Igman–Hadžići road, at the site where, on 28 January 1942, following the Igman March, the First Proletarian Brigade broke through. The monument is designed as a retaining wall, with six stone panels embedded in its central section, the largest of which bears a commemorative inscription. The panels are rectangular in shape and made of massive, finely crafted blocks of Jablanica granite, while the central panel features a Latin-script inscription dedicated to the Igman partisans (Banda, 2020).

#### Lukomir Village

Lukomir village, situated at an elevation of 1,495 m above sea level, is the highest permanently inhabited settlement in Bosnia and Herzegovina (Hadrovic, 2022). It is also the most isolated village in the country, remaining without permanent residents for up to six months each year due to heavy snowfalls that prevent access.

Administratively, it belongs to the City of Konjic in the Herzegovina-Neretva Canton and is located approximately 50 km from Sarajevo.

The village lies between the mountain peaks of Lovnica (1,856 m) and Obalj (1,896 m), on the cliff above the canyon of the Rakitnica River (Azinović, 2023). Lukomir is one of the most recognizable tourist symbols of Bjelašnica, and what makes it distinctive and unique is its vernacular architecture.

Vernacular architecture, a form of regional building shaped by geography, available materials, climate, tradition, and culture, developed through knowledge transmitted and refined over generations of non-professional builders (Pardo, 2023).



**Fig. 4. Lukomir Village**  
(Source: Photograph by Amra Banda, May 2016)

Owing to abundant natural resources, such as water, arable land, and extensive pastures, as well as its considerable distance from larger settlements and main transport routes, the village has retained its distinctive and authentic characteristics, which have largely been preserved to this day (Hadrovic, 2022). The cultural landscape of Lukomir, declared a national monument in July 2009, consists of 96 structures (46 residential buildings, 49 livestock barns, a mosque, and a former school building), as well as two necropolises of stećci located at the sites of Vlaško Groblje and Jezerine (Municipality of Trnovo, 2018). These medieval tombstones testify to the continuity of life in this area.

In the Bjelašnica region, rural architecture has specific features and is characterized by a distinctive type of village house known as the “house with a *čardak*.” The tourism value of these buildings lies in the fact that this form of rural residential architecture

has almost completely disappeared and represents the traditional architecture of the sub-Bjelašnica villages, preserved exclusively in Lukomir.

The houses are specific to this area, and their appearance and construction methods primarily reflect the characteristics of the terrain as well as the needs of the local community (Fig. 4) (Banda, 2020).

In the southwestern part of the village, on a hill known as Vlaško Groblje, there is a necropolis consisting of 18 *stećci*, including 17 chest-shaped tombstones and one gabled tombstone. Six monuments are decorated with relief motifs such as a stylized cross, swords, a shield, and a swastika. The necropolis is divided into two parts by a fence belonging to the active Muslim cemetery. Approximately 100 meters northwest of this site lies the Jezerine locality, which contains nine chest-shaped *stećci*. The origin of these necropolises dates to the late Middle Ages, specifically to the second half of the 14th century and the first half of the 15th century.<sup>5</sup>

#### Umoljani Mosque

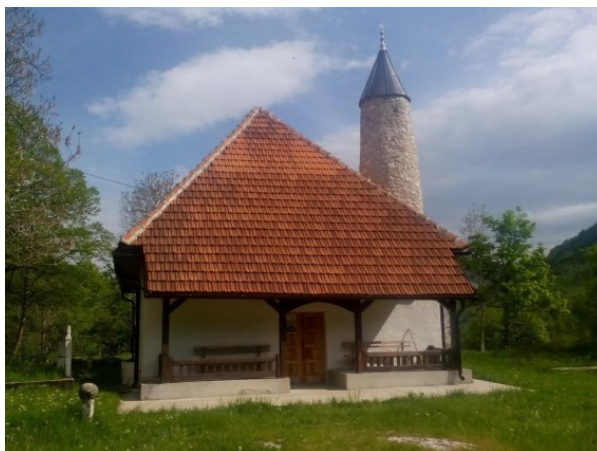
There are no preserved written records concerning the construction of the mosque in Umoljani, nor have any documents related to its endowment (*vakufnama*) or other sources survived that would allow the precise determination of the time of its establishment. It is believed that the first wooden mosque on this site was built approximately 200 years ago, while the present structure most likely dates from the early 20th century.<sup>6</sup> The mosque is constructed of stone and, following restoration, is in good condition (Fig. 5). A traditional event held in Umoljani during the summer months, in July and August, is the recitation of the *mevlud*. On these occasions, several thousand people visit the village to attend this religious ceremony. This and similar events significantly contribute to the preservation of tradition and the promotion of the ethnic and cultural values of the area (Banda, 2020).

According to one legend, during the Second World War the Sarajevo Haggadah, a Jewish illuminated manuscript from medieval Spain, was hidden in the Umoljani mosque. During the most recent war, in August 1993, almost all villages in the Bjelašnica area were completely destroyed, while the mosque in Umoljani remained intact (Babić, 2021). In 2008, the Commission to Preserve National Monuments declared the Umoljani Mosque and its *harem* with the cemetery a national monument of Bosnia and Herzegovina (Commission to Preserve National Monuments of Bosnia and Herzegovina, 2008).

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<sup>5</sup> <https://www.konjic.ba/ba/opcina-konjic/nacionalni-spomenici/62-kulturni-krajolik-selo-lukomir.html> (accessed: 4 December 2025)

<sup>6</sup> <https://dzamije.ba/info.php?id=dzamija-u-umoljanima-19> (accessed: 10 December 2025)



**Fig. 5.** The Mosque in Umoljani  
(Source: Photograph by Amra Banda, May 2016)

### The War-time Mosque

The war-time mosque is located on Mount Igman, at the crossroads of the Kabalovo–Hrasnički Stan roads, and administratively belongs to the Municipality of Ilidža. It was built because members of the Army of the Republic of Bosnia and Herzegovina needed a place to perform their religious duties during the war. Construction took place between November 1993 and February 1994, based on a design by Osman Smječanin (*Historijski vodič opkoljenog Sarajeva 1992–1995*, 2023). The Memorial Fund has been entrusted with the use, protection, and maintenance of the War Mosque on Mount Igman, which has been proclaimed a heritage asset (*Official Gazette of Sarajevo Canton*, 2018).

### Ski Jumping Hills on Igman

The complex at Malo Polje, built for the XIV Winter Olympic Games, consists of a large ski jumping hill with a critical point of 112 m (K-112) and a smaller hill with a critical point of 90 m (K-90) (Fig. 6). In addition to these structures, a landing slope, cable car, judges' tower, ski center, and facilities for rest and accommodation were constructed. The chief designer of this complex was the Slovenian civil engineer, architect, and structural designer Janez Gorišek (*Nadilo*, 2013). Due to damage sustained during the 1992–1995 war, the ski jumping hills are no longer in use. Administratively, they belong to the Municipality of Hadžići.



**Fig. 6.** Ski Jumping Hills  
*(Source: Photograph by Belma Durmišević, May 2025)*

### **Intangible Cultural Heritage**

Two folk traditions are associated with the name Umoljani. According to one, the village name derives from the Humljani, shepherds from Herzegovina who permanently settled this area during their summer pastures. The other legend, better known to tourists, tells of an aždaha (a dragon or monster) that emerged from the Rakitnica Canyon and passed through Studeni Potok with the intention of destroying the village. The villagers, noticing the danger, retreated to Pošijak Hill and prayed to God for salvation. Their prayers were answered (they “pleaded” Him), the aždaha was turned to stone, and a formation resembling a “petrified monster” is visible in the rock of Pošijak Hill (Fig. 7). A legend of wedding guests is also associated with the stećak necropolis at Dolovi near Umoljani, according to which the stećci represent the tombstones of wedding guests who clashed at that site and met a tragic fate.



**Fig. 7.** “The Petrified Dragon”  
 in the Rock on Pošijak Hill near Gradina,  
*(Source: Photograph by Amra Banda, April 2018)*

This deeply rooted tradition also influences their approach to tourism. For example, in Umoljani and Lukomir, older generations perceive tourists as guests and interact with them according to their customs, striving to be good hosts without expecting financial gain. In Bjelašnica, the local population conveys to tourists what daily life on the mountain used to be like, including customs related to communal meals and traditional livestock farming. Local gastronomic products and handicrafts are particularly highlighted (Banda, 2020; USAID, 2024).

Livestock farming, especially sheep breeding, is a traditional activity. Sheep are milked twice a day, and the milk is used to prepare butter, buttermilk, cheese, and kajmak (a type of clotted cream). Uštipci (fried dough pastries) were considered a “good dish” and were most often prepared for guests. Today, dairy products, uštipci, and pies are the most popular components of the gastronomic tourism offer. Vegetables were rarely eaten, except for crops such as cabbage, while meat was historically a rarity, usually reserved for guests, which was considered a great honor. From the traditions of the mountain villages, numerous indigenous products have emerged that can be branded within the tourism offer as protected local souvenirs, representing significant economic potential for the benefit of the local population. Particularly important are wool products, made within households by female members, both for domestic use and for the tourist market. In the Bjelašnica villages today, visitors can find hand-knitted socks, pape (slippers), sweaters, and pullovers, sold at relatively affordable prices for such handcrafted items (Fig. 8) (Banda, 2020).



**Fig. 8.** Woven Handicrafts by the Women of the Lukomir Village  
(Source: Photograph by Amra Banda, May 2016)

## **CURRENT STATE OF CULTURAL HERITAGE AND HERITAGE-BASED TOURISM PRODUCTS**

After a brief overview of the basic characteristics of the selected cultural and historical heritage sites, it is necessary to analyze their current condition in order to assess their potential for tourism development.

The ambient ensemble of Blatačko Lake with its stećci necropolises represents a valuable example of monumental heritage; however, it is very rarely promoted within the tourism offer of this area. One possible reason lies in the fact that the lake is not included in the tourism offer of the Bjelašnica villages. Access to Blatačko Lake and the stećci is easiest from the direction of Konjic, namely from the village of Džepi, which is also a popular hiking route. Continuing the route further toward Lukomir and other Bjelašnica villages represents a significant physical challenge, despite the trail not being technically demanding.

The village of Ledići, where the Zlatarić necropolis is located, is today almost abandoned and was the site of suffering of both Orthodox and Muslim populations during the most recent war. To this day, the infrastructure has not been fully restored, as a large part of the population (mostly Orthodox) never returned. Ledići represents a distinct ambient ensemble, and there was an idea to develop an ethno-village at this location. In addition to cultural and historical heritage, the area also features the Ledički Waterfall and the Senabot springs. The mosque in Umoljani is part of the local jamaat serving the Muslim population of the Bjelašnica villages. As an active place of worship, it is regularly maintained and in good condition. The area of the War Mosque on Igman is also regularly maintained and, like the Umoljani mosque, is frequently visited by excursionists and tourists due to its favorable location. The War Mosque is an important element of the culture of remembrance related to the events of the 1992–1995 war. The ski jumps on Igman are an important part of the Olympic heritage; however, despite an initiative launched in 2006 by the Municipality of Hadžići for their reconstruction, this has not yet been realized. Tourists, particularly foreign visitors, frequently visit the site, but there are no organized tours by responsible institutions, nor is regular maintenance ensured.

There is significant potential for the development and creation of cultural tourism products in the mountain area of Bjelašnica. In addition to economic benefits for the local community, this form of tourism could contribute to the preservation and revitalization of cultural and historical heritage, particularly livestock herders' huts (katuns), which represent a specific segment of traditional architecture. Rural holiday tourism is becoming increasingly popular in Western European countries, especially among residents of large urban centers who have limited contact with everyday rural life.

In this context, tourists would likely be attracted by the opportunity to stay in mountain areas and participate in food production activities and other daily tasks within rural households. Visitors could also taste and purchase traditional products such as milk, cheese, and various handicrafts. In addition, outdoor activities such as walking, cycling, hiking, and mountaineering should form an integral part of these tourism arrangements. Excursions, as well as various educational programs and interpretative content aimed at presenting specific mountain areas, should also be included in the tourism offer. All of these activities would contribute to the incorporation of traditional ways of life into an authentic tourism product.

These concepts have already been partially implemented through several initiatives in the Bjelašnica area, which represent examples of good practice in linking cultural heritage, the local community, and sustainable tourism.

Several recent initiatives on Bjelašnica illustrate how cultural heritage and local traditions can be integrated into sustainable tourism products. These examples demonstrate a growing synergy between local communities, authentic experiences, and the natural environment.

#### Socks of Umoljani

A thematic hiking tour combining cultural heritage, traditional crafts, and gastronomy. Visitors explore the village of Umoljani, learn about the legend of the Dragon of Umoljani, and observe the traditional wool-knitting process preserved by local women. The experience concludes with a homemade meal in a rural household, providing insight into everyday mountain life.

#### “Bjelašnica Jewels” / Rural Avantourism

This initiative highlights the cultural and architectural heritage of Umoljani and Šabići through guided tours that connect stećci necropolises, the mosque in Umoljani, old mills, and traditional cuisine. It promotes the revitalization of rural settlements and the interpretation of everyday culture as part of the tourism experience.

#### Rural Route Bjelašnica (2023–2024)

Developed with local and donor support, this project mapped 23 local facilities, including restaurants, family farms, accommodation units, cultural landmarks, and natural sites such as the Rakitnica Canyon and Blatačko Lake. Through digital maps, QR codes, and marked trails, it creates an integrated eco-cultural tourism route that strengthens local entrepreneurship and enhances the visibility of rural and cultural assets.

## CONCLUSION

In the mountain area of Bjelašnica and Igman, natural tourism potentials continue to dominate the overall tourism offer, while cultural and historical heritage, despite its value, has not been sufficiently recognized by the responsible institutions. Although national monuments testify to the rich history and tradition of the areas in which they are located, a large proportion of them are neglected and poorly maintained, and thus insufficiently integrated into contemporary tourism development processes. Frequently, even members of the wider local community are not aware of the existence of certain sites, which is why they are neither presented to tourists nor used as part of the tourism offer.

By integrating cultural and historical monuments—particularly those inscribed on the UNESCO World Heritage List—the tourism offer would be significantly enriched, creating conditions for attracting new segments of tourism demand and extending the tourist season. In this context, Bjelašnica and Igman stand out as mountain areas of exceptional cultural and historical value, where traces of traditional architecture, sacred sites, oral traditions, legends, and rural ways of life further enrich the natural landscape.

Positive steps toward integrating cultural heritage into sustainable tourism development are evident through certain initiatives that represent examples of good practice in linking the local community, tradition, and the tourism offer. Nevertheless, despite these initiatives, there remains considerable room for improvement, particularly in the interpretation of cultural heritage, its promotion, and the strengthening of cooperation among local households, tourism stakeholders, and destination management.

The main obstacles to the more intensive development of rural and cultural tourism in the Bjelašnica area include insufficient promotion, weak cooperation among tourism actors, a lack of foreign language skills, and limited financial investment. Overcoming these challenges represents a key prerequisite for cultural identity to become a central element of Bjelašnica's tourism development and the foundation of the long-term sustainability of this mountain destination.

## REFERENCES

1. Álvarez-García, J., Maldonado-Erazo, C. P., Del Río-Rama, M. D. L. C., Castellano-Álvarez, F. J. (2019). Cultural heritage and tourism basis for regional development: mapping of scientific coverage. *Sustainability*, 11(21), 6034.
2. Azinović, L. (2023). *Lukomir-posljednje bosanskohercegovačkoselo*. (Bachelor's thesis, Prirodoslovno-matematički fakultet Sveučilišta u Zagrebu). Retrieved from <https://zir.nsk.hr/theses/pmf:11568/show-file/0>
3. Babić, B. (2021). *Umoljanska džamija na Bjelašnici*. Retrieved from <https://bracobabic.com/2021/05/07/umoljanska-dzamija-na-bjelasnici/>
4. Banda, A. (2020). *Atrakcijska osnova planinskog prostora Bosne i Hercegovine kao podloga za razvoj selektivnih oblika turizma*. (Doctoral dissertation, University of Sarajevo – Faculty of Science)
5. Bešliagić, Š. (2004). *Leksikon stećaka*. Sarajevo: Svjetlost.
6. Cano, M., Garzón, E., Sánchez-Soto, P.J. (2013). Preservation and conservation of rural buildings as a subject of cultural tourism: A review concerning the application of new technologies and methodologies. *J. Tour. Hosp.*, 2, 1–23.
7. Coccossis, H. (2016). Sustainable development and tourism: Opportunities and threats to cultural heritage from tourism. *Cultural tourism and sustainable local development*, 65-74. Routledge.
8. Commission to Preserve National Monuments of Bosnia and Herzegovina (2008). Odluka. Retrieved from [http://aplikacija.kons.gov.ba/kons/public/uploads/odluke\\_bos/Trnovo\\_dzamija%20Umoljani%20kompl%20BOS.pdf](http://aplikacija.kons.gov.ba/kons/public/uploads/odluke_bos/Trnovo_dzamija%20Umoljani%20kompl%20BOS.pdf)
9. Commission to Preserve National Monuments of Bosnia and Herzegovina (2014). Odluka. Retrieved from [http://aplikacija.kons.gov.ba/kons/public/uploads/odluke\\_bos/Sarajevo\\_spomenici%20Igmanskom%20marsu%20kompl%20BOS.pdf](http://aplikacija.kons.gov.ba/kons/public/uploads/odluke_bos/Sarajevo_spomenici%20Igmanskom%20marsu%20kompl%20BOS.pdf)
10. Conti, A. L. (2015). Cultural heritage and tourism: possibilities of a sustainable relationship. *Technical Transactions (Czasopismo Techniczne)*.
11. Esfehiani, M. H., Albrecht, J. N. (2019). Planning for intangible cultural heritage in tourism: Challenges and implications. *Journal of Hospitality & Tourism Research*, 43(7), 980-1001.
12. Fatorić, S., Egberts, L. (2020). Realising the potential of cultural heritage to achieve climate change actions in the Netherlands. *Journal of Environmental Management*, 274, 111107.
13. Hadrovic, A. (2022). Two examples of the Bosnian Chardaklia house in the Lukomir village on Bjelasnica (Bosnia and Herzegovina). *International Journal of Scientific Engineering and Science*, 6(3), 1-9.
14. Halkos, G.E., Koundouri, P.C., Aslanidis, P.S.C., Plataniotis, A. (2024). Evaluating the tangible and intangible parameters of cultural heritage: an economic meta-analysis in a global context. *Discover Sustainability*, 5(1), 187.

15. Historijski vodič opkoljenog Sarajeva 1992-1995 (2023). Retrieved from [https://mbp.ks.gov.ba/sites/mbp.ks.gov.ba/files/2023-08/ratni\\_vodic\\_opkoljenog\\_sarajeva\\_opt\\_0.pdf](https://mbp.ks.gov.ba/sites/mbp.ks.gov.ba/files/2023-08/ratni_vodic_opkoljenog_sarajeva_opt_0.pdf)
16. Lepirica, A. (2013). *Geomorfologija Bosne i Hercegovine*. Sarajevo: Sarajevo Publishing
17. Lopes, E.R., Simões, J. (2020). Cultural Tourism and Museum Activity(s). *Journal of Tourism and Heritage Research: JTHR*, 3(4), 107-119.
18. Mihić, Lj. (1984). *Bjelašnica i Igman planine XIV Zimske Olimpijade*. Mostar: SOUR APRO Hercegovina Odbor za programiranje razvoja.
19. Municipality of Trnovo (2018). *Dodijeljena sredstva za očuvanje i zaštitu autentične slike sela Lukomir*. Retrieved from <https://www.trnovo.ba/2018/06/21/dodijeljena-sredstva-za-ocuvanje-i-zastitu-autenticne-slike-sela-lukomir/>
20. Nadilo, B. (2013). Vremena slave i ponosa - Borilišta zimske Olimpijade u Sarajevu. *Građevinar*, 65 (2013) 2, 176-181.
21. Official Gazette of Sarajevo Canton (2018). *Odluku o davanju saglasnostio statusnoj promjeni fonda Kantona Sarajevo za izgradnju i očuvanje grobalja šehida i poginulih boraca, memorijalnih centara i spomen obilježja žrtava genocida*. Broj 28 - Strana 272. Retrieved from [https://skupstina.ks.gov.ba/sites/default/files/2024-08/odluka\\_osnivanje\\_ju\\_memorijalni\\_centar.pdf](https://skupstina.ks.gov.ba/sites/default/files/2024-08/odluka_osnivanje_ju_memorijalni_centar.pdf)
22. Panzera, E., de Graaff, T., de Groot, H.L. (2021). European cultural heritage and tourism flows: The magnetic role of superstar World Heritage Sites. *Papers in Regional Science*, 100(1), 101-123.
23. Pardo, J. M. F. (2023). Challenges and current research trends for vernacular architecture in a global world: a literature review. *Buildings*, 13(1), 162.
24. Patsch K. (1902). Rimska mjesta u konjičkom kotaru. *Glasnik Zemaljskog muzeja*, sv. 3, 303-333.
25. Popović, J. (1935). *Kroz planine Bosne i Hercegovine*. Sarajevo: izdanje planinarskih društava u Sarajevu.
26. Richards, G. (2018). Cultural tourism: A review of recent research and trends. *Journal of hospitality and tourism management*, 36, 12-21.
27. Timothy, D.J. (2014). Contemporary cultural heritage and tourism: Development issues and emerging trends. *Public Archaeology*, 13(1-3), 30-47.
28. UNESCO Institute for Statistics. (2009). *UNESCO framework for cultural statistics (FCS)*. United Nations Educational, Scientific and Cultural Organization. Retrieved from <https://unstats.un.org/unsd/statcom/doc10/Bg-FCS-e.pdf>
29. USAID (2024). *Između zelenih dolina i snježnih vrhova: Bjelašnica, Igman, Treskavica, Visočica*. Retrieved from [https://turizam.ba/wp-content/uploads/2024/10/bjelasnica-igman-treskavica-visocica-park-prirode\\_usaid-turizam.pdf](https://turizam.ba/wp-content/uploads/2024/10/bjelasnica-igman-treskavica-visocica-park-prirode_usaid-turizam.pdf)
30. World Tourism Organization (2001). *Cultural Heritage and Tourism Development*. Madrid: World Tourism Organization.
31. World Tourism Organization (2018). *Tourism and Culture Synergies*. Madrid: World Tourism Organization.

32. Zeppel, H., Hall, C.M. (1991). *Selling art and history: Cultural heritage and tourism*.
33. <https://e-trnovo.com/spomenici/> (accessed: 10 December 2025)
34. <https://www.konjic.ba/ba/opcina-konjic/nacionalni-spomenici/62-kulturni-krajolik-selo-lukomir.html> (accessed: 4 December 2025)
35. <https://dzamije.ba/info.php?id=dzamija-u-umoljanima-19> (accessed: 10 December 2025)
36. <https://www.trnovo.ba/wp-content/uploads/2019/11/Nekropole-ste%C4%87akaaa.pdf> (accessed: 10 December 2025)
37. <https://www.konjic.ba/ba/opcina-konjic/nacionalni-spomenici/60-kulturni-pejzaz-blatacko-jezero.html> (accessed: 25 November 2025)

# TOURISM DEVELOPMENT OF SARAJEVO'S OLYMPIC MOUNTAINS - A TOURISM AREA LIFE CYCLE PERSPECTIVE

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**DOI:** 10.35666/25662880.2025.11.193

**UDC:** 338.48-31"324"(497.6 Sarajevo)

**Abstract:** Sarajevo Olympic mountains, Bjelašnica, Igman, Jahorina, and Trebević represent a valuable physical-geographical and tourism resource of Bosnia and Herzegovina, characterized by winter tourism. Their development has been shaped by complex historical, political, and social processes, with the 1984 Winter Olympic Games marking the culmination of infrastructural and tourism prosperity, followed by wartime devastation and post-war institutional fragmentation that resulted in prolonged stagnation. This paper applies Butler's Tourism Area Life Cycle (TALC) model to examine the evolution of tourism function in these mountain areas. Through a combination of historical-geographical approach and qualitative sources, this paper analyzes spatial and functional changes, as well as challenges related to sustainability, management, and institutional coordination. The Sarajevo Olympic mountains do not represent a textbook example of the TALC model, as their development has not followed a linear path; instead, growth phases were often interrupted by external factors such as war, political-administrative structure, and climate change. A particular challenge lies in the inconsistency of statistical data, which complicates precise identification of developmental stages. Although the mountains share similar patterns of exploration, growth, stagnation, and decline, each has followed a specific development path determined by infrastructural, socio-political, and economic conditions. The findings indicate that the future tourism development of the Sarajevo mountains should be oriented towards sustainability, rational use of natural resources, and the development of selective tourism products, supported by improved institutional coordination and more consistent statistical records.

**Keywords:** tourism development, tourism area life cycle, Olympic mountains

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## INTRODUCTION

Sustainable tourism can be described as a form of tourism that is developed and maintained in a specific area in such a way and to such an extent that it remains viable over an unlimited period of time, without causing degradation or significant change to the human and natural environment, nor jeopardizing the development and well-being of other activities and processes (Butler, 1993). The UNWTO has emphasized that sustainable tourism should: make optimal use of environmental resources that are key to tourism development, while preserving essential ecological processes and protecting natural heritage and biodiversity; respect the socio-cultural authenticity of host communities, safeguard their cultural heritage and traditional values, while promoting intercultural understanding and tolerance; and ensure long-term sustainable economic operations by providing fairly distributed socio-economic benefits to all stakeholders, including stable employment, income-generating opportunities, and social services, thereby contributing to poverty reduction (UNWTO, 2013).

Mountain areas, traditionally characterized by depopulation and lower levels of development, particularly in developing countries, have increasingly recognized tourism as a key development opportunity in recent years. In these areas, sustainable tourism enables the development of tourism activities that do not endanger fragile environments or local communities (Karim, 2022), whose unique culture and intangible heritage constitute a crucial part of the tourism supply, contributing to the preservation of authentic customs and everyday practices while simultaneously enhancing the value of the natural environment (Sgroi, 2020).

Bosnia and Herzegovina possesses strong potential for the development of sustainable tourism due to its natural assets, diverse landscapes, and rich biodiversity. In this regard, high-mountain and rural areas stand out as particularly important elements of tourism valorization (Lugonja, 2014). Bjelašnica, Igman, Jahorina, and Trebević, together with the city of Sarajevo, hosted the XIV Winter Olympic Games in 1984, which further highlighted their infrastructural importance and symbolic value.

Bobsleigh and luge competitions were held on Trebević, ski jumping, cross-country skiing, and biathlon on Igman, men's alpine skiing events on Bjelašnica, and women's alpine skiing events on Jahorina. After the Olympic Games, Bjelašnica retained a key role in the development of winter sports, hosting a number of international competitions under the auspices of the FIS (Hadrović, 2020).

The development of the Sarajevo mountains (Bjelašnica, Igman, Jahorina, and Trebević), from a period of great popularity through the challenges brought by wartime events and post-socialist transition processes, reflects the dynamism and

complexity of this area, while simultaneously highlighting contemporary efforts toward revitalization and the preservation of tourism and cultural potential. Despite their unique natural characteristics and rich cultural-historical heritage, the resources of the Olympic mountains have still not been fully valorized. Their sustainable development is threatened by processes of apartmentization and uncontrolled urbanization, which lead to excessive construction and spatial degradation, as well as by climate change, which reduces the reliability of snow cover and threatens the future of winter tourism. At the same time, mass tourism creates additional pressure on ecosystems and infrastructure. Nevertheless, with strategic planning and a careful balance between economic development and the preservation of natural and social frameworks, these mountains have significant potential for the development of selective and year-round forms of tourism.

In the context of these complex development processes and patterns, the aim of this research is to analyze the tourism development of the Sarajevo Olympic Mountains using Butler's Tourism Area Life Cycle (TALC) model. Special attention is given to the historical phases of development, interruptions in tourism growth, and challenges related to spatial planning and the management of these mountain areas.

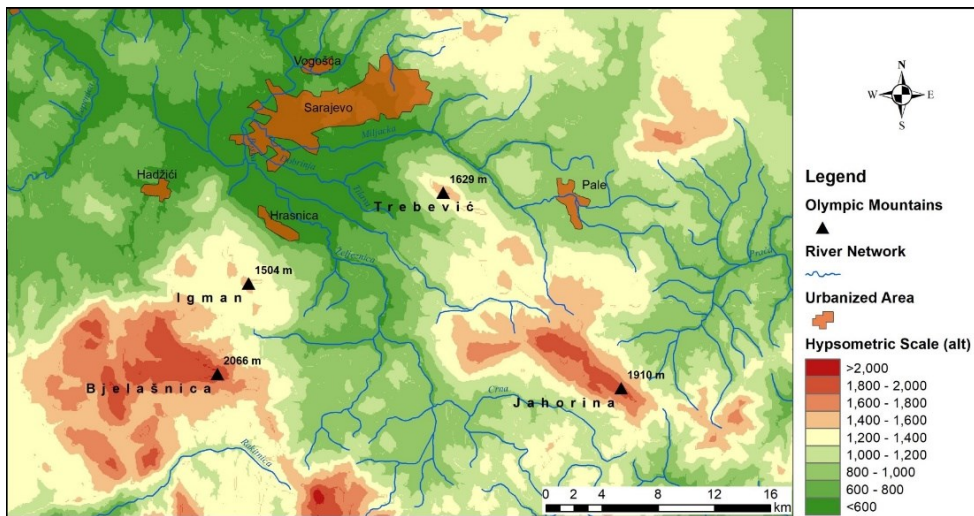
## **STUDY AREA**

The mountain area of Bjelašnica (highest peak: Zvezdarnica, 2,066 m a.s.l.) and Igman (Crni Vrh, 1,504 m a.s.l.) is located in the central part of the Dinarides, which belong to the western sector of the Mediterranean zone of young fold mountains. These two morphologically distinct units are connected by the morphodepressions of Malo and Veliko Polje. Bjelašnica extends southwest of Sarajevo toward the Prenj massif, from which it is separated by the Neretva River. Its boundaries are defined by the Sarajevo Plain along the Zujevina River to the north; the Željeznica River and the eastern part of the Sarajevo Plain to the east; Mount Hojta to the southeast; the deep canyon of the Rakitnica River to the south; and the Neretva River valley to the southwest.

From the southern and southwestern sides, this mountain complex is sharply delimited by the canyons of the Rakitnica and Neretva rivers, while to the northwest it is connected via the Ivan Saddle to Mount Bitovnja, and to the southeast, across Hojta, it links with Mount Treskavica (Mihic 1984). Mount Igman represents the northeastern branch of the Bjelašnica massif and is characterized by an undulating, gently rolling surface aligned with the Dinaric direction, with an average elevation of 1,300 to 1,400

meters. On its northern side, it descends steeply toward the Sarajevo Plain, and on the western side toward the valley of the Zujevina River.<sup>4</sup>

The mountain area of Jahorina together with Trebević is located southeast of the Sarajevo Basin. Geomorphologically, the Jahorina massif consists of three units: Gola Jahorina, Ravna Planina, and Trebević. Trebević and Jahorina do not constitute a fully unified morphogenetic area, partly due to the indistinct boundaries between these mountains. A high mountain plateau with the peaks Mali and Veliki Stupanj and Mali and Veliki Crni Vrh marks the boundary between the mentioned massifs (Popović, 1935), while Mount Ogorjelica (1,916 meters) represents the highest point of Jahorina. To the north, the branches of Jahorina gradually descend via Ravna Planina into the Pale Basin, which separates the massif from Romanija (Golijanin, 2010). From the northwestern side, the Jahorina massif connects with Trebević, whose slopes continue toward the Sarajevo Plain through the areas of Miljevići and Lukavica (Mihčić, 1987).



**Fig. 1.** Geographical location of the Sarajevo Olympic Mountains

<sup>4</sup> <https://www.dinarskogorje.com/igman.html>

## METHODOLOGY

The methodological framework of the research is based on the application of Butler's Tourism Area Life Cycle (TALC) model as a conceptual framework, which was used to identify the developmental stages of the mountain tourism destinations of Bjelašnica, Igman, Jahorina, and Trebević. According to Butler (1980), the tourism life cycle consists of six stages: exploration, involvement, development, consolidation, stagnation, decline, or rejuvenation.

However, it is important to emphasize that the model cannot be applied in a strictly linear manner; rather, it represents an analytical lens for examining long-term spatial and functional changes, while taking into account key political, socio-economic, and structural transformations, as well as changes in tourism demand patterns. A similar approach has been applied in numerous other studies, such as Berry (2000), Zhong et al. (2008), Šulc (2016), Banda (2020), Ramón-Cardona and Sánchez-Fernández (2024), and Banda et al. (2026), which further confirms the relevance and applicability of the TALC model.

This research adopts a historical–geographical approach, combining qualitative analysis of secondary sources with a comparative interpretation of tourism development trajectories on the Sarajevo Olympic Mountains. Due to the scarcity and incompleteness of tourism statistics, particularly in the post-war period, the definition of TALC phases is primarily based on qualitative indicators, including changes in space and infrastructure, governance structures, the intensity of investments, and the significance of tourism in the local and regional economy. Available statistical data were used as supportive evidence rather than as decisive factors in determining the phases.

Although the Sarajevo Olympic Mountains share similar geographical characteristics and a common Olympic legacy, their post-war development has differed significantly. In order to analyze similarities and differences in the development of individual mountain areas, the method of comparative analysis was employed, taking into account the shared geographical and historical context, with particular emphasis on key historical events such as the XIV Winter Olympic Games in 1984 and the war of 1992–1995.

Field research was conducted on Bjelašnica, Igman, Jahorina, and Trebević, involving data collection through direct observation and photo documentation, with a particular focus on the condition of existing infrastructure, accommodation capacities, and the construction of new facilities.

## RESULTS

### *Development phases of Sarajevo's Olympic mountains*

Although more detailed analyses of the life cycles of the studied mountain destinations are not possible due to the lack of statistical data, the development of the tourism function of the Sarajevo Olympic Mountains has been interpreted in the scientific literature through various periodizations. In this paper, the periodization of mountain area development defined by Banda et al. (2026) is adopted as the reference framework:

- Phase I – from 1878 (the arrival of Austro-Hungarian administration) to 1939 (the outbreak of the Second World War);
- Phase II – from 1945 (the end of the Second World War) to the hosting of the Winter Olympic Games in 1984;
- Phase III – from 1985 to 1992 (the onset of the war period, 1992–1995);
- Phase IV – from 1996 to 2000 (the post-war period);
- Phase V – from 2001 (the contemporary period);
  - Sub-phase I (2001–2010);
  - Sub-phase II (from the 2010s to the present).

The characteristics of the developmental phases of the studied mountain areas are presented in Table 1.

**Tab. 1.** Characteristics of the developmental phases of the studied mountain areas

<b>Development phase</b>	<b>Phase characteristics</b>
<b>Phase I</b>	<ul style="list-style-type: none"> <li>- The initial phase of organized recreational and tourism movements in mountain areas during the period of Austro-Hungarian administration</li> <li>- Intensification of the construction of transport and mountaineering infrastructure, alongside the parallel development of mountaineering and tourism literature and cartography</li> <li>- Mountaineering societies as key institutional actors in shaping the early recreational offer and organizing excursion activities</li> <li>- Predominance of summer recreational activities, driven by low costs of stay and preferential conditions in railway transport</li> <li>- Gradual activation of mountain areas in the vicinity of urban centers as dominant recreational zones</li> <li>- The beginnings of winter recreational and tourism activities through the emergence of skiing, the organization of events, and the construction of the first mountaineering facilities</li> </ul>
<b>Phase II</b>	<ul style="list-style-type: none"> <li>- War destruction during the Second World War and the post-war reconstruction of mountaineering infrastructure (1946–1952), including mountain lodges, trails, and basic communal facilities</li> <li>- Quantitative growth in visits and overnight stays in mountaineering facilities, particularly on Bjelašnica and Igman, indicating the strengthening of the recreational and tourism function of the mountains</li> <li>- Development of recreational and competitive skiing from the late 1950s, accompanied by the organization of local competitions, courses, and events</li> <li>- Differentiation of development trajectories among the mountains: Jahorina emerges as an organized winter center (involvement phase according to Butler), while Bjelašnica and Igman lag behind in infrastructural terms</li> <li>- Gradual improvement of transport, technical, and tourism infrastructure, alongside the beginnings of spatially unplanned weekend-house construction</li> </ul>

	<ul style="list-style-type: none"> <li>- The Winter Olympic Games as a key development impulse, creating the infrastructural foundation for more intensive development of winter mountain tourism and the expansion of the contractive zone</li> </ul>
<b>Phase III</b>	<ul style="list-style-type: none"> <li>- The Winter Olympic Games as a key development catalyst, which in the early 1980s significantly transformed the landscape and the economic role of the Olympic mountains</li> <li>- The establishment of the Bjelašnica–Igman Olympic Center and the profiling of the mountains as developed winter tourism destinations, alongside the gradual introduction of selective summer forms of tourism</li> <li>- Diversification of the tourism supply through sports-recreational, congress, and training-related sports activities, accompanied by an extension of the tourist season and increased visitation</li> <li>- Differentiated development patterns: Jahorina enters Butler’s expansion (development) phase, while Bjelašnica and Igman transition from the involvement phase toward the development phase, with identified spatial and functional shortcomings</li> </ul>
<b>Phase IV</b>	<ul style="list-style-type: none"> <li>- During the war period of 1992–1995, mountain tourism infrastructure suffered extensive destruction, with the complete devastation of facilities on Bjelašnica and Igman, partial damage on Jahorina, and landmine contamination of the Trebević area.</li> <li>- In the post-war period (1996–2000), partial reconstruction of key infrastructure and ski facilities on Bjelašnica–Igman began, accompanied by a slow and uneven recovery of Jahorina and Trebević, as well as limited use of these areas due to security and technical constraints.</li> </ul>
<b>Phase V</b>	<p><b>Sub-phase I</b></p> <ul style="list-style-type: none"> <li>- Dominance of winter tourism in the first sub-phase, characterized by pronounced seasonality, limited diversification of activities, and a high dependence of seasonal performance on snowfall</li> <li>- Infrastructural and functional constraints (inadequate ski slopes, traffic congestion, climatic conditions, and competition from regional centers) slowing the recovery</li> </ul>

	<p>of Bjelašnica, Igman, and Jahorina</p> <ul style="list-style-type: none"> <li>- Complex and fragmented institutional and governance models (ZOI '84 and OC Jahorina) hindering coordinated development and the formation of a unified “Olympic Mountains” destination</li> <li>- Increasing pressures from apartmentization, urbanization, and unplanned development, accompanied by a growing need to balance tourism development with the preservation of natural values</li> <li>- Unreliability of official tourism statistics (unregistered accommodation, day visitors, non-categorized facilities) complicating a realistic assessment of tourist flows and the economic effects of tourism</li> </ul>
	<p><b>Sub-phase II</b></p> <ul style="list-style-type: none"> <li>- Intensive infrastructure investments and growth in tourist traffic, particularly on Jahorina, which has been reaffirmed as the leading ski resort in Bosnia and Herzegovina</li> <li>- Reaffirmation of Trebević after 2018 through the reconstruction of the cable car, the development of recreational facilities, and the valorization of cultural and historical heritage</li> <li>- Gradual infrastructural and promotional advances on Bjelašnica and Igman, accompanied by an increase in apartment-type accommodation and growing interest from foreign visitors</li> <li>- Attempts to diversify the tourism supply (summer activities, events, rural and event tourism), while maintaining a dominant orientation toward winter tourism</li> <li>- Pronounced development challenges: uncontrolled apartmentization, urbanization, pressures from mass tourism, and climate change</li> </ul>

Source: authors, based on the research of Banda and Opačić (2017) and Banda (2026).

*Interpretation of development phases through the Tourism Area Life Cycle (TALC) model*

The combination of a favorable geographical position (proximity to the capital city), the valorization of natural attraction resources, and the development of transport and tourism infrastructure, along with an increase in accommodation capacity, enabled the Olympic mountains to pass through most of the stages of Butler’s Tourism Area Life Cycle over a multi-decadal period (Table 2). In this study, the stages of Butler’s model are treated as interpretative, meaning that development phases are not viewed as a strictly linear sequence, but rather as a process characterized by regressions, prolonged stages, and interruptions conditioned by external factors. Consequently, these mountain areas do not represent textbook examples of Butler’s destination life cycle, particularly with regard to the clear delineation of individual development stages. In this context, no consolidation phase was identified in the development of the studied mountain areas, as the incompleteness of tourism statistics prevents a reliable assessment of whether accommodation capacity or the capacity of tourism attraction resources has been exceeded.

**Tab. 2.** Comparison of development phases with Butler’s TALC stages

Development phase	Bjelašnica–Igman	Jahorina	Trebević
<b>Phase I</b>	○	○	○
<b>Phase II</b>	△	△→	△→
<b>Phase III</b>	▲	▲	▲
<b>Phase IV</b>	≈	≈	≈
<b>Phase V (I)</b>	↓	≈→	↓ (2001–2017)
<b>Phase V (II)</b>	↑	↑	↑ (2018–)

Source: adapted by the authors

Legend:

○ exploration; △ involvement; ▲ development; ≈ stagnation; ↓ decline; ↑ rejuvenation; → arrow indicates transitional characteristics toward the subsequent TALC stage.

The tourism development of the Olympic mountains to date has been the result of the interaction of both external and internal factors. The most important external factors include the war events of 1992–1995, the political–administrative division into entities, and increasingly evident climate change. The emergence of competing destinations with similar tourism offerings should also be highlighted (Banda et al., 2026).

The war events of 1992–1995 represent a turning point in development. The consequences of the war, including the presence of landmines, caused severe damage to the tourism infrastructure of the Olympic mountains and led to the stagnation of these destinations. Post-war reconstruction proceeded slowly, which further contributed to the obsolescence of the tourism product. In the cases of Jahorina and Trebević, the political–administrative division into entities additionally complicated destination management in the contemporary period. Such development disruptions indicate that, in the case of the Sarajevo Olympic Mountains, transitions between the phases of Butler’s model do not occur in a continuous manner, but are instead characterized by abrupt regressions and prolonged retention in stages of stagnation and decline.

Bjelašnica and Igman are characterized by a relatively typical development trajectory, encompassing an exploration phase in the late 19th and early 20th centuries, followed by phases of involvement and intensive development, which culminated during the XIV Winter Olympic Games in 1984. These phases were succeeded by periods of stagnation and decline caused by war-related destruction and prolonged insufficient investment. Only after 2010 did a phase of revitalization begin, marked by investments in ski infrastructure, hotel facilities, and additional sports and recreational amenities.

By contrast, Jahorina stands out as the mountain destination with the most dynamic development pace. In the period from 1945 to 1984, it transitioned from the involvement phase to the development phase, driven by the expansion of winter ski tourism and intensive infrastructural investments. Following the Olympic development peak and wartime devastation, the destination remained in a phase of stagnation during the 2001–2010 period, albeit with clear tendencies toward revitalization (Table 2). Since 2010, a new investment cycle has triggered the modernization of cable car systems, the expansion of accommodation capacities, and the development of new tourism facilities, thereby consolidating Jahorina’s position as the leading ski resort in Bosnia and Herzegovina.

Trebević exhibits the most distinctive development pattern. Until 1992, its trajectory largely mirrored that of the other Olympic mountains, progressing through the

exploration and involvement phases and into the development phase, which reached its peak with the construction of the bobsleigh track for the XIV Winter Olympic Games in 1984. However, war-related destruction and long-term security issues, including landmine contamination and infrastructure abandonment, resulted in a prolonged phase of decline that lasted until 2017. A turning point and the beginning of revitalization is identified in 2018, when the Trebević cable car was reconstructed and reopened, symbolically and functionally marking the mountain's return to Sarajevo's active tourism offer (Banda et al., 2026).

Within the framework of Butler's model, this development process can be interpreted as a phase of partial revitalization, largely limited to excursion and recreational activities. The portion of Trebević located within the Federation of Bosnia and Herzegovina has held protected area status since 2014, which has further directed the mountain's development toward outdoor tourism. The renewed connection with the urban core has resulted in an increase in visitor numbers, improvements in tourism infrastructure, and the expansion of the gastronomic and hospitality offer.

Sub-phase II (from the 2010s to the present) represents the current stage of development of the analyzed mountain destinations. In this context, Jahorina clearly stands out due to strong investment activity, which has enabled its positioning as an international tourism destination. In contrast, Bjelašnica and Igman record a more moderate pace of development, predominantly characterized by the growth of apartment-type accommodation and a stronger reliance on the domestic market, while Trebević, owing to the reconstruction of the cable car and the improvement of excursion areas, functions primarily as a destination for day trips and short-term visits. At the same time, in the part of Trebević that administratively belongs to the Republika Srpska, a more intensive development of apartment and other accommodation capacities has been recorded, indicating spatially differentiated tourism development as well as a lack of cooperation and a shared development vision among the responsible authorities.

The common development challenges faced by all analyzed mountains relate to pronounced urbanization, the seasonality of tourism demand, and the insufficient valorization of summer and year-round forms of tourism. Differences in the intensity and directions of development suggest that the Sarajevo Olympic Mountains, although situated within the same temporal framework, occupy different positions within Butler's Tourism Area Life Cycle, further confirming the heterogeneous and non-linear nature of their tourism development.

The challenges of tourism development in the Olympic mountains are multiple and complex. Insufficient integration of tourism products and services into

multidestination packages, along with the limited use of existing natural and cultural resources, negatively affects their market competitiveness. An additional problem is pronounced seasonality, given that the largest share of tourist traffic is generated during the winter ski season. Although detailed statistical data on the average length of stay in the mountains are not available, field observations indicate that Jahorina attracts longer stays during the winter season, while Bjelašnica, Igman, and Trebević primarily function as destinations for shorter and weekend visits.

## **DISCUSSION**

To accelerate the revitalization of the Olympic mountains and their surrounding areas, development should be more strongly oriented toward selective forms of tourism that can complement the dominant winter tourism offer and extend the length of the tourist season.

On Bjelašnica, further improvements are needed in the network of hiking and excursion routes passing through the mountain villages, while areas such as Kotlovi offer strong potential for the development of adventure tourism. Lukomir and Umoljani are recognized as rural tourism destinations, but they require better organization and promotion, as well as improvements in transport infrastructure. On Igman, Veliko Polje stands out as a traditional excursion area; however, there is a clear need for the development of basic infrastructure, including sanitary facilities, rest areas, and waste disposal facilities.

As part of the broader development framework defined by the Sustainable Development Strategy of the Municipality of Trnovo for the period 2023–2027, a strategic project of the Municipality of Trnovo was implemented in 2024, involving the construction of the Trnovo Business and Sports Center near Babin Do. Within the planning period up to 2027, one of the key infrastructure improvement and development projects of the Municipality of Ilidža is the construction of a cable car linking the settlement of Hrasnica with the Olympic mountain Igman (Development Strategy of the Municipality of Ilidža for the period 2022–2027, 2023).

Jahorina also has the potential to further develop a year-round tourism offer through the expansion of excursion zones and additional adventure tourism facilities, while Trebević, as previously noted, has already become a popular excursion destination for both the local population and international visitors, largely due to the operation of the cable car.

Strategy of the Republika Srpska Tourism Development for the period 2021–2027 (2021) defines the Jahorina tourism area, with the Jahorina Ski Center as its core

attraction and complementary tourism attractions such as the Orlovača Cave, the Miljacka Waterfall, the Prača Canyon etc., all of which have the potential to be positioned on regional and international markets.

## **CONCLUSION**

The studied mountain areas are characterized by certain specific features in their development. The Olympic massifs of Bjelašnica with Igman and Jahorina with Trebević, due to the construction of accommodation facilities and tourism infrastructure, had the prerequisites for the development of mass ski tourism, which represented their main development orientation until the outbreak of the war in 1992–1995. The war, as an external factor beyond the control of the destinations, brought about numerous negative changes, and after 1996 these destinations found themselves in an unfavorable position.

The application of Butler's Tourism Area Life Cycle model, although useful, has certain methodological limitations, as development phases in practice do not always unfold linearly nor fully correspond to the theoretical pattern. Nevertheless, the application of Butler's Tourism Area Life Cycle model has proven valuable for the analysis of long-term tourism development in the Sarajevo Olympic Mountains. However, the results confirm that in post-war destinations with complex spatial and political dynamics, the model should be interpreted flexibly, with particular attention to interrupted and non-linear development processes.

For the Sarajevo Olympic Mountains, selective forms of tourism represent an opportunity for revitalization and improved positioning on the tourism market. Selective tourism development implies sustainable tourism, which would have positive effects on the population of mountain areas and contribute to the improvement of environmental conditions.

The conducted research is also subject to certain limitations. The most significant relates to the lack of comprehensive tourism statistics for mountain areas, while the presence of the grey economy further complicates reliable assessments of tourism development stages.

## REFERENCES

1. Banda, A, Opačić, V. T. 2017. Razvoj turizma na olimpijskim planinama Bjelašnici i Igmanu. u: *Zbornik radova Četvrtog kongresa geografa Bosne i Hercegovine*. Nusret Drešković (ur.), Geografsko društvo u Federaciji Bosne i Hercegovine, 810–826.
2. Banda, A. 2020. Atrakcijska osnova planinskog prostora Bosne i Hercegovine kao podloga za razvoj selektivnih oblika turizma, doktorska disertacija, Univerzitet u Sarajevu.
3. Banda, A., Osmanović, M., Durmišević, B., & Ajanović, E. (2026). Historijski razvoj sarajevskih olimpijskih planina: Naslijeđe ZOI '84 i izazovi savremenog turizma (u štampi). *Prilozi za proučavanje historije Sarajeva*, (11).
4. Berry, E. N. (2000). An application of Butler's (1980) tourist area life cycle theory to the Cairns Region, Australia, 1876-1998 (Doctoral dissertation, James Cook University).
5. Butler, R. W. (1980). The concept of a tourist area cycle of evolution: Implications for management of resources. *The Canadian Geographer / Le Géographe Canadien*, 24(1), 5–12.
6. Butler, R.W. (1993). Tourism - an evolutionary perspective. In *Tourism and Sustainable Development: Monitoring, Planning, Managing*, ed. J.G. Nelson, R.W. Butler and G. Wall, pp. 27-44. Waterloo, Ontario: University of Waterloo (Department of Geography Publication 37).
7. Dinarsko gorje <https://www.dinarskogorje.com/igman.html> Accessed on: 20.10.2025
8. Golijanin, J. 2010. *Morfografske karakteristike terena Jahorine u funkciji održivog razvoja*, magistarski rad, Filozofski fakultet Pale.
9. Hadrović, A. 2020. Umoljani Village on Bjelašnica: Life in the Way of Sustainability. *SEE J Archit Des*. 2020 May 11; 10047, 1–9.
10. Karim, R., Raza, W., Malik, A. J., & Nisa, M. U. (2022). Sustainable mountain tourism. *Mountain studies: Understanding and managing mountains for people and nature*, 171.
11. Lagonja, A. (2014). Sustainable tourism chance for development Bosnia and Herzegovina. *Glasnik Srpskog geografskog društva*, 94(2), 31-44.
12. Mihić, Lj. (1987) Jahorina i Trebević planine XIV zimske olimpijade. Pale: Skupština opštine Pale i Vojna ustanova Romanija
13. Mihić, Lj. (1984) Bjelašnica i Igman planine XIV Zimske Olimpijade. SOUR APRO Hercegovina Odbor za programiranje razvoja, Mostar.
14. Ministarstvo trgovine i turizma Republike Srpske (2021) Prijedlog Strategije razvoja turizma Republike Srpske za period 2021-2027. godine, [Strategy of

- the Republika Srpska Tourism Development for the period 2021–2027] <https://url-shortener.me/6AZP>. Accessed on 20.10.2025.
15. Općina Ilidža (2023). Strategija razvoja općine Ilidža za period 2022-2027. godine. 2023 [Development Strategy of the Municipality of Ilidža for the period 2022–2027,] [https://www.sogfbih.ba/sites/default/files/javni\\_dokument/2023-07/Ilid%C5%BEa%20-%20Strategija%20razvoja%202022.-2027.pdf](https://www.sogfbih.ba/sites/default/files/javni_dokument/2023-07/Ilid%C5%BEa%20-%20Strategija%20razvoja%202022.-2027.pdf) Accessed on 20.10.2025.
  16. Općina Trnovo (2023). Strategija održivog razvoja Općine Trnovo, 2023-2027. godine. [The strategy for the sustainable development of the municipality of Trnovo for the period 2022–2027,] [https://www.trnovo.ba/wp-content/uploads/2023/04/Strategija-odrzivog-razvoja-opcina-Trnovo-2023\\_2027\\_compressed.pdf](https://www.trnovo.ba/wp-content/uploads/2023/04/Strategija-odrzivog-razvoja-opcina-Trnovo-2023_2027_compressed.pdf) Accessed on 20.10.2025.
  17. Popović, J. (1935). Kroz planine Bosne i Hercegovine. Sarajevo: izdanje planinarskih društava u Sarajevu.
  18. Ramón-Cardona, J., & Sánchez-Fernández, M. D. (2024). The consolidation stage of the tourism area life cycle (TALC) model: The case of Ibiza from 1977 to 2000. *Tourism and Hospitality*, 5(1), 148-159.
  19. Sgroi, F. (2020). Forest resources and sustainable tourism, a combination for the resilience of the landscape and development of mountain areas. *Science of the Total environment*, 736, 139539.
  20. Skijanje.rs. <https://www.skijanje.rs/istorija/istorija-skijanja-u-bih/pocetci-skijanja-na-jahorini/> Accessed on 01.7.2025.
  21. Šulc, I. 2016. *Modeli razvoja turizma u Južnoj Dalmaciji*, doktorska disertacija, Sveučilište u Zagrebu.
  22. UNWTO, 2013. Sustainable Tourism for Development Guidebook. [https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed\\_dialogue/@sector/documents/publication/wcms\\_216669.pdf](https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_dialogue/@sector/documents/publication/wcms_216669.pdf)
  23. Zhong, L., Deng, J., & Xiang, B. (2008). Tourism development and the tourism area life-cycle model: A case study of Zhangjiajie National Forest Park, China. *Tourism management*, 29(5), 841-856.

# TOURISM POTENTIAL OF POČITELJ AND POLICY CHALLENGES

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DOI: 10.35666/25662880.2025.11.209

UDC: 338.483.11:32(497.6 Počitelj)

**Abstract:** The Old Town of Počitelj represents a unique urban and architectural ensemble of Herzegovina. Its ambient and cultural-historical value is authentic and holds significant tourism potential for Bosnia and Herzegovina. This paper analyzes the approach to authentic cultural heritage through the lens of political discourse, which has an undeniable impact on the valorization of Počitelj as a tourist destination. In this context, attention should be focused on preserving authenticity, protecting the environment, and improving the quality of life of the local population. Special emphasis is placed on the controversies surrounding the construction of the Hercegovina Bridge and the Počitelj–Zvirovići highway, which have raised questions about the balance between infrastructural development and the preservation of the cultural landscape. The research findings indicate persistent challenges in institutional governance, issues of maintenance and protection, and the need for a sustainable tourism model that integrates economic development with the preservation of cultural identity. Despite infrastructural changes, Počitelj has maintained its tourist appeal and continues to record an increase in visitors, confirming its importance as a key cultural and tourism resource of the municipality of Čapljina and the wider Herzegovina region. The paper concludes that the future development of Počitelj depends on an integrated approach to cultural policy, spatial management, and the active involvement of the local community in decision-making processes.

**Keywords:** Počitelj, cultural heritage, sustainable tourism, infrastructural development, political discourse

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## INTRODUCTION

Cultural tourism represents a form of tourism activity in which visitors acquire knowledge, explore, and experience the tangible and intangible cultural attractions of a destination (UNWTO, 2017; Richards, 2018). It includes visits to monuments, museums, and galleries, engagement with local culture and customs (Razović, 2009), as well as elements that reflect the lifestyle of a particular community (McIntosh & Goeldner, 1990). Cultural tourism can also be understood as a socio-cultural interaction in which various actors, ranging from planners, policymakers, and researchers to marketing professionals and travel agencies, play an important role in the promotion and organization of activities (Mousavi et al., 2016). Tangible heritage refers to monuments, buildings, sites, and museum objects and is defined as “material heritage,” while intangible cultural heritage encompasses traditions, oral narratives, performing arts, social practices, rituals, knowledge, and skills transmitted from generation to generation, elements that are not physically tangible but are essential to the identity and culture of a community (UNESCO Institute for Statistics, 2009).

This form of tourism offers opportunities for the development of sustainable practices that contribute to heritage preservation, environmental protection, and the improvement of the quality of life of the local community (Bobanović, 2025). Although practice shows that this is difficult to achieve, a sustainable approach should reconcile the needs of the tourism sector with those of artistic and cultural heritage management (du Cros & McKercher, 2020).

Due to the significant contribution of historical and cultural heritage to tourism development (Ismagilova et al., 2015), cultural tourism has become an important economic activity (Lopes & Simões, 2020), and UNWTO forecasts that interest in this form of tourism will continue to grow (CBI, 2021). The importance of cultural tourism has been particularly recognized by the European Union, which highlights culture as an integral part of a unique tourism experience and as a means of strengthening European values (Neuts et al., 2023), as well as a key motivation for travel (Kurtović, 2007). It is estimated that cultural tourism accounts for approximately 40% of all tourism activities in Europe (European Commission, 2024), and that cultural tourists spend 38% more per day and stay 22% longer than other tourists (CBI, 2021).

Cultural tourism often remains in the background, as priority is frequently given to attractions oriented toward mass tourism (Molinar, 2006). Zhang et al. (2025) note that China’s Ningxia Hui region possesses rich cultural and historical heritage, yet its tourism potential remains underutilized due to economic underdevelopment and uneven spatial distribution. Similarly, Debes (2011) found that Northern Cyprus lacked a clearly defined strategy for planning cultural and heritage-based tourism products.

Comparable observations were made by Yu and Xu (2019), who emphasize that rich cultural heritage may remain unexploited if adequate interpretation and integration into tourism products are lacking. Moliterni et al. (2025) analyzed the role of cultural heritage in rural tourism development, highlighting that the Italian region of Basilicata possesses significant yet still underutilized tourism potential based on its cultural identity and culinary heritage.

A typical example of underutilized tourism potential is Počitelj, one of the most valuable historical and cultural ensembles in Bosnia and Herzegovina. Although it represents an exceptionally well-preserved Ottoman ensemble and offers significant opportunities for the development of cultural tourism, Počitelj faces challenges related to insufficient investment, lack of systematic management, weak infrastructure, and underdeveloped tourism services. Key challenges include political influence, privatization of heritage properties, and the absence of institutional management. Therefore, the aim of this research is to highlight the inadequate approach to cultural heritage resulting from the lack of coherent management policies and strategic development, with an emphasis on preserving authenticity, protecting the environment, and improving the quality of life of the local population.

In Bosnia and Herzegovina, there are several locations capable of meeting the demands of contemporary tourists; however, numerous problems persist, ranging from an unorganized tourism sector and insufficient financial support to limited care and investment by responsible institutions. This situation demonstrates that, in the absence of a clear tourism policy and strategy at all levels of governance, the country's rich cultural and historical heritage and other tourism assets remain underutilized and self-serving, rather than attracting and retaining visitors (Kurtović, 2007). Bosnia and Herzegovina has made certain efforts to integrate its rich cultural and natural heritage into tourism development; however, the framework for enhancing natural and cultural heritage within tourism remains at an early stage of development. The complex governance and institutional structure requires significantly greater human and financial resources compared to other economies in the region, while partnerships with stakeholders at the state level remain relatively weak (Pobrić & Osmanović, 2024).

## **METHODOLOGY**

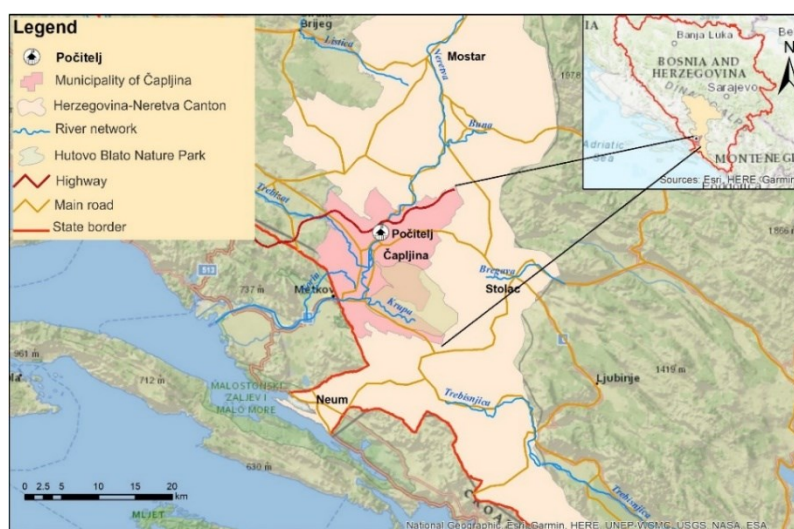
This study employs a research approach based on a combination of qualitative research methods, field observations, and an analysis of available professional and scientific literature on Počitelj, its tourism development, and challenges related to spatial management. Through the systematization of relevant sources including scientific studies, planning and strategic documents, UNESCO reports, and publications on cultural-historical and natural heritage, key theoretical perspectives on tourism marginalization, spatial degradation, socio-political challenges, and the development potential of Počitelj were identified.

Field observations conducted during the summer of 2025 provided insight into the condition of cultural-historical buildings, tourism infrastructure, the quality of access roads, communal maintenance, and environmental pressures. A particularly important component of the research involved the collection of information from local residents, tourism service providers, vendors of local products, and visitors.

These interactions were conducted as informal, experience-based conversations rather than through a formally structured questionnaire, with a focus on perceptions of tourism development in Počitelj, feelings of neglect by decision-makers at both local and higher levels of governance, and the identification of key problems and development potentials. The combination of these methods enabled a comprehensive understanding of Počitelj as a space in which cultural-historical values intersect with challenges of institutional governance and sustainable tourism development.

## STUDY AREA

Počitelj is located on the left bank of the Neretva River, approximately 3–5 km south of Čapljina and about 30 km south of Mostar, along the main transport corridor Sarajevo–Mostar–Metković. Its position on a natural terraced slope above the river creates a distinctive amphitheatrical landscape setting. The location of Počitelj is the result of its pronounced military and geostrategic function in the past. The fortress, as its principal landmark, protected the entrance to the lower Neretva Valley, primarily serving to control the Drijeva–Blagaj routes, which were crucial for medieval trade flows. This transport route constituted the basis of the fortress’s urban intensity, and the early urbanization of Počitelj was therefore strongly influenced by political dynamics at the broader regional level (Kurtović, 2014).



**Fig. 1.** Geographical position of Počitelj

Source: adapted by the authors

The first written reference to Počitelj dates back to 1444, in a charter issued by the Aragonese–Neapolitan King Alfonso V, in which it is mentioned as the property of the prominent Bosnian noble family Kosača. Počitelj later served as a military stronghold during the conflicts between the Kingdom of Hungary and the Ottoman Empire. Following the Ottoman conquest in 1471, the fortress underwent extensive expansion, accompanied by the development of the lower settlement. The Ottoman period of Počitelj’s development was marked by the formation of an Oriental urban core consisting of a čaršija (bazaar), residential mahale, and public buildings, including a mosque, madrasa, hammam, clock tower, and han (inn). During this period, Počitelj gradually acquired a distinctive Oriental–Mediterranean architectural identity, and in the 18th and 19th centuries it functioned as the seat of a kadiluk and a captaincy (Kurtović, 2014).

Počitelj represents a unique “open-air amphitheatre city” (Hadrović, 2023) characterized by an exceptionally authentic Ottoman urban structure. It is a small town in which public spaces, residential zones (mahale arranged along the slopes), and a fortification complex located at the highest point are clearly distinguished. This fortification constitutes a significant component of the cultural-historical urban landscape; however, despite its value, many structures are currently deteriorating due to long-term neglect.



**Fig. 2.** Urban structure of Počitelj

Source: <https://bljesak.info/magazin/religija/zapoceto-proces-rekonstrukcije-i-revitalizacije-medrese-u-pocitelju/483851> (accessed: 1 December 2025)

The geographical location, historical development, and urban genesis of Počitelj constitute the basis for understanding its spatial structure and ambient values. With the aim of identifying elements of the greatest cultural-historical, landscape, and tourism significance, as well as those particularly exposed to processes of degradation, an inventory of the key ambient and architectural–urban values of Počitelj was conducted.

### Fortress

It has not been reliably established who built the first fortification at this site or when the earliest settlement emerged (Čelić, 1959). It is, however, known that the fortress of Počitelj (the Gavrankapetanović Tower) was constructed between the 15th and 18th centuries, with occasional interruptions (UNESCO, n.d.). During the conflicts between the Kingdom of Hungary and the Ottoman Empire, Počitelj represented a key strategic point in the lower course of the Neretva River (Kurtović, 2014). The oldest medieval part of the fortress forms its core, within which two construction phases can be clearly distinguished: an older inner fortification consisting of a donjon tower and a small outer ward dating from the late 14th century, and later extensions and reinforcements from the second half of the 15th century. It is assumed that a smaller settlement existed below the fortress during this or an even earlier period. By the late 17th century, the fortress was significantly expanded and strengthened, resulting in a more robust defensive system. At that time, ramparts were constructed enclosing a square tower, two bastions (Mehmed Pasha's and Delibaša's), the Dizdar's house, a granary, a mosque, and a cistern with an entrance area and stairway. During this period, the fortress also featured two large and two small gates (UNESCO, n.d.). Despite periods of neglect, insufficient care in recent decades, and natural deterioration, this unique ambient complex has been largely preserved to the present day (Kurtović, 2014). In recent years, media reports have warned of structural collapse due to neglect, while the partially restored Kulina and Paša Tabija have frequently been targets of vandalism (Hebib, 2020).

### Šišman Ibrahim Pasha Mosque

The Šišman Ibrahim Pasha Mosque, also known as the Hadži Alija Mosque, is one of the most valuable examples of classical Ottoman single-space domed mosque architecture in Bosnia and Herzegovina. According to available sources, the original mosque was built by Hadži Alija in 1562–1563, while Ibrahim Pasha of Počitelj, known in local tradition as Šišman Ibrahim Pasha, erected a monumental mosque with a large dome on the foundations of the earlier structure in the mid-17th century (Mehmedović, 2017).

In its immediate vicinity were other public buildings, including mektebs, an imaret, a madrasa, a hammam, a han (inn), and a clock tower. During the most recent war, the mosque suffered extensive damage; however, subsequent restoration returned it to its original function (UNESCO, n.d.; Fejzić & Fejzić, 2023).

#### Šišman Ibrahim Pasha Madrasa

Although historical sources indicate that Ibrahim Pasha built the madrasa in 1665, featuring one large and five smaller lead-covered domes (Mehmedović, 2017), the travelogue of Evliya Çelebi suggests that the madrasa in Počitelj existed prior to 1664. Similar to the mosque, the madrasa was restored after sustaining damage from shelling during the war (UNESCO, n.d.). As part of the Šišman Ibrahim Pasha Madrasa has collapsed and the structure faces the risk of complete destruction, the Commission to Preserve National Monuments has repeatedly called upon the competent authorities to undertake the necessary protective measures (Commission to Preserve National Monuments, 2021).

#### Hammam

The hammam, an Islamic public bath, holds a dual value within cultural heritage. On the one hand, it represents a valuable historical structure characterized by complex architecture and distinct cultural phases; on the other, it constitutes an important element of socio-cultural heritage (Kolb & Dumreicher, 2008). Hammams were constructed to maintain hygiene for population groups who did not have bathing facilities in their homes, as well as for travelers and for rest and relaxation of wealthier citizens. To date, only three original hammams have been preserved in Bosnia and Herzegovina: the Gazi Husrev-beg Hammam in Sarajevo, the Čejvan-Čehajina Hammam in Mostar, and the Ibrahim Pasha Hammam in Počitelj (Mehmedović, 2017).

Evliya Çelebi's travelogue indicates that the Ibrahim Pasha Hammam in Počitelj was constructed prior to 1664, with the building works carried out by craftsmen sent from Istanbul (UNESCO, n.d.). The structure was built using local limestone and tufa, and the methods of processing and application of these materials testify to the exceptional skill of the builders in working with them (Mujezinović, 2012).

## Šišman Ibrahim Pasha Han

Hans were facilities located within urban areas, constructed to facilitate trade, ensure the safety of travelers, and provide accommodation (Cesaris et al., 2014; Ateş & Oğuz, 2025). The han in Počitelj was built around 1665 as a single-storey structure organized around a central courtyard intended for the accommodation of horses. Only fragments of the original structure have been preserved. During the 1970s, the building was restored and repurposed for catering and hospitality uses (UNESCO, n.d.).

## Clock tower

Clock towers are tall stone structures topped with pyramidal roofs, resembling Romanesque church towers in form, though lacking their characteristic details (Kreševljaković, 1957). The Počitelj Clock Tower, erected in the second half of the 17th century, represents one of the three dominant vertical landmarks of the town and serves as an example of the preservation of Romanesque architectural elements during the Ottoman period (Čelić, 1959). It is a typical example of a Herzegovinian clock tower, shaped under the influence of Mediterranean–Dalmatian architecture (UNESCO, n.d.). The clock tower remained in operation until 1917, when the bell believed to have been brought from Crete following its conquest by the Ottomans was removed (Kreševljaković, 1957).

## Residential architecture

The residential architecture of Počitelj does not conform to any standard typology found elsewhere in Bosnia and Herzegovina. Although based on Ottoman-Islamic architectural principles, the houses were constructed on morphologically and geologically demanding terrain (Aličić, 2013). The buildings combine Mediterranean elements, such as gabled roofs, massive stone walls, and small windows with Oriental features, including hipped roofs, doksats (oriel windows), hajat spaces, and divanhana. Constructed primarily of stone, the houses are characterized by round chimneys and roofs clad with irregular stone slabs, while wealthier residences contained multiple bathing spaces (UNESCO, n.d.). The 1992–1995 war caused catastrophic damage, during which many significant structures were destroyed and the remaining houses suffered severe deterioration (Aličić, 2013). Due to its exceptional historical and cultural value, Počitelj was included in 1996 on the list of the 100 most endangered cultural heritage sites worldwide by the World Monuments Watch (Lučić, 2021).

## Gavrankapetanović house

The Gavrankapetanović residential complex, constructed during the 16th and 17th centuries, represents the most significant example of residential architecture in Počitelj. The complex consists of two smaller and one larger building, organized according to the traditional division into selamluk (male/public quarters) and haremluk (female/private quarters). Particularly distinctive are the arched windows on the western façade (UNESCO, n.d.). By the mid-20th century, the complex had fallen into neglect and was in poor condition. Adaptation began in 1961 and was completed in 1975, when the complex was repurposed as the Počitelj Art Colony, an important institution of the Association of Fine Artists of Bosnia and Herzegovina (Federal Ministry of Culture and Sports, 2010). During the war, the complex suffered severe damage, particularly to the haremluk and the wooden structural elements and cladding. Restoration within the framework of the Programme for the Permanent Protection of Počitelj enabled the complex to regain its function as an artists' colony (UNESCO, n.d.). The Gavrankapetanović House forms an integral part of the protected ensemble of Počitelj's historic core, which was proclaimed a National Monument of Bosnia and Herzegovina by the Commission to Preserve National Monuments in 2003 (Hadrović, 2023).

## RESULTS AND DISCUSSION

Despite the distinctive importance of Počitelj as an authentic urban ensemble in Herzegovina, the town was for a long period left to informal care by its residents, without an official managing authority or an adequate system of maintenance. Major problems included improper waste disposal in public spaces, neglected walls of cultural-historical structures, inadequate public lighting, and the absence of appropriate tourist signage<sup>3</sup>. Local residents, most notably Jadranka Dizdar, representing the Počitelj Tourism Association, and the academic painter Safet Zec, have for years warned the competent institutions about the urgent need to protect cultural heritage and improve the town's tourism image. Their long-term advocacy was primarily focused on preventing the deterioration of Počitelj's tourism integrity, particularly in the context of the planned construction of a bridge on the Corridor Vc.

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<sup>3</sup> <https://www.hercegovina.info/hercegovina/pocitelj-urbana-hercegovacka-carsija-sve-vise-propada/181628/> (accessed: 01 October 2025)

The construction of the bridge and the Počitelj–Zvirovići motorway subsection, later renamed the Hercegovina Bridge and Tunnel<sup>4</sup>, which were opened to traffic in 2024, resulted from strategic decisions made by JP Autoceste of the Federation of Bosnia and Herzegovina and the Federal Ministry of Transport and Communications. Through decisions regarding the project's name and route alignment, the authorities sought to emphasize the importance of large-scale infrastructure projects for the wider Herzegovina region, with strong support from the Government of the Federation of Bosnia and Herzegovina and international financial institutions, including the European Investment Bank, the European Bank for Reconstruction and Development, and the European Union. During the construction phase, the local population of Počitelj expressed concerns that the new route bypassed the historic town, potentially leading to reduced tourist inflows and lower sales of local products. These concerns reflected fears of traffic-related marginalization, shaped by earlier experiences following the construction of the Stolac–Neum road.

The decision on the motorway alignment generated profound local and cultural controversies. As early as 2008, nearly 1,000 residents of Počitelj, led by the renowned artist Safet Zec, advocated relocating the bridge further north of the town in order to protect the ambient and visual values of the historic core, which has been designated a National Monument of Bosnia and Herzegovina<sup>5</sup>. While this civic initiative resulted in partial modifications to the project design, it simultaneously led to the cancellation of the planned motorway rest area near Počitelj, thereby reducing its visibility and accessibility as a stopover destination.

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<sup>4</sup> <https://hms.ba/hms-doznaje-most-i-tunel-pocitelj-preimenovani-u-most-i-tunel-hercegovina-uskoro-nastavak-gradnje-autoceste-od-juga-ka-sjeveru-mostara/> (accessed: 30 September 2025)

<sup>5</sup> <https://www.slobodnaevropa.org/a/1352919.html> (accessed: 30 September 2025)



**Fig. 3.** Hercegovina bridge near Počitelj

Source: <https://storage.radiosarajevo.ba/image/811529/1180x732/most-hercegovina-most-kod-pocitelja-pocitelj-most-autocesta-koridor-5c-16.jpg> (accessed: 4 December 2025)

Institutional decisions regarding the routing of the motorway in the vicinity of Počitelj clearly reflect an insufficient level of state responsibility and commitment in the implementation of strategic development projects. A lack of understanding of the interests of the local population of Počitelj is evident, as well as the absence of measures aimed at creating preconditions for tourism development and the improvement of everyday living conditions. Despite official narratives emphasizing the importance of the motorway for integrating Herzegovina into European transport corridors, the local community stresses that the construction of the bridge and its opening to traffic have led to a decline in visitor numbers and have threatened the livelihoods of residents engaged in tourism, hospitality services, and the sale of local products.

However, research conducted in 2025 indicates that Počitelj continues to attract visitors<sup>6</sup>, including tourists from Turkey, Poland, and Italy. A significant ongoing challenge remains the retention of visitors and the extension of their length of stay, which requires additional investment in tourism infrastructure, promotion, and the rehabilitation of historical buildings.

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<sup>6</sup> <https://www.hercegovina.info/vijesti/bih/most-hercegovina-nije-zaustavio-turiste-pocitelj-i-dalje-atraktan-za-posjetitelje/243105/> (accessed: 01 October 2025)

Tourists particularly organized tour groups often remain in Počitelj for only a few minutes, frequently without entering hospitality or craft establishments. As a result, the local economy, largely based on small-scale retail, the sale of local products, and service activities, records declining revenues. In the absence of an active tourism offer and strategically planned infrastructure designed to prolong visitor stays, continued neglect places the local community at risk of Počitelj becoming an unsustainable tourism destination.



**Fig. 4.** The neglected state of the Gavrankapetanovic fortress

Source: <https://friendsofpocitelj.org/saving-pocitelj-urgent-challenges/> (accessed: 4 December 2025)

In addition to the challenges related to infrastructural changes, inadequate management of cultural heritage represents a significant issue. The deterioration of cultural-historical structures such as the Gavrankapetanović Tower, whose roof, walls, and internal structure are in a neglected condition and pose a risk to both local residents and visitors reflects the absence of institutional engagement in planned conservation measures. The restoration of the fortress, which was partially initiated in the early 2010s, was discontinued shortly after 2014 due to a lack of funding. Moreover, the value of some restored elements has been compromised by acts of vandalism, indicating deficiencies in supervision, maintenance, and overall heritage management.

Additional challenges related to spatial management, protection, and use arise from problematic privatization processes. According to statements by local residents, in early 2009 a private investor acquired a significant number of buildings and land parcels within the historic core of Počitelj at low prices, including areas of public importance such as the space surrounding the water reservoir. This privatization of

space resulted in the physical restriction of access for tourist buses through the installation of barriers, thereby creating infrastructural constraints for organized visitor groups and negatively affecting accessibility and visitor circulation within the site.

Despite the aforementioned challenges, recent years have witnessed positive examples in the field of cultural heritage restoration, indicating the presence of tangible potential for the revitalization of Počitelj. In early 2024, the reconstruction of the Šišman Ibrahim Pasha Madrasah was initiated following the return of waqf property, previously alienated through privatization processes, to the Islamic Community. The involvement of local residents and the religious community in restoration activities demonstrates that the local community is willing to assume a more active role in heritage preservation when adequate institutional support is provided.



**Fig. 5.** The process of reconstruction and revitalization of the Madrasah in Počitelj  
Source: <https://bljesak.info/magazin/religija/zapocao-proces-rekonstrukcije-i-revitalizacije-medrese-u-pocitelju/483851> (accessed: 4 December 2025)

## CONCLUSION

Počitelj represents a spatially and typologically unique ambient ensemble, whose authenticity is reflected in the clear differentiation of public and residential zones and in the architectural synthesis of medieval, Oriental, and Mediterranean influences. Despite its status as a National Monument of Bosnia and Herzegovina, its inclusion on the UNESCO Tentative List, and its rich cultural-historical heritage and exceptional tourism potential, Počitelj faces a series of challenges that threaten its position on the regional tourism map. Spatial and developmental processes in Počitelj are characterized by challenges related to large-scale infrastructure projects, the lack of systematic heritage management, economic dependence on tourism, and pressures arising from privatization.

Although Počitelj continues to attract a significant number of visitors, the key challenge remains the extension of visitor stays, along with the improvement of tourism services and supporting infrastructure. The restoration of degraded structures and the establishment of a clear cultural heritage management model, one that integrates the local community, public institutions, and the private sector, require a well-defined strategic framework. Only through the combination of these approaches can the sustainable revitalization and long-term protection of this unique cultural-historical site be ensured.

## REFERENCES

1. Aličić, A. (2013). Metodologija rekonstrukcije starog grada Počitelja, Naše starine – XXII, 55-58. Sarajevo: Federalno ministarstvo kulture i sporta - Zavod za zaštitu spomenika
2. Ateş, D. K., & Oğuz, G. P. (2025). The Impact of Trade on Architecture During the Seljuk-Ottoman Period: A Study on Caravanserais and Khan Structures in the Southeastern Anatolia Region. *ICONARP International Journal of Architecture and Planning*, 13(1), 145-166. 10.15320/ICONARP.2025.319
3. Bobanović, R. (2025) *Održivi turizam posebnih interesa na zaštićenim lokalitetima svjetske baštine*. Završni rad. Sveučilište Jurja Dobrile u Puli, Fakultet ekonomije i turizma „Dr. Mijo Mirković“. Dostupno na: <https://repozitorij.unipu.hr/object/unipu:10256> (30.09.2025.)
4. CBI (2021). The European market potential for cultural tourism. Retrieved from <https://www.cbi.eu/market-information/tourism/cultural-tourism/market-potential>
5. Čelić, Dž. (1959). Počitelj na Neretvi: urbanističko-arhitektonska studija s osvrtom na problematiku održavanja. *Spomenici kulture. Naše starine*, 5-49. Sarajevo: Federalno ministarstvo kulture i sporta. <https://fmks.gov.ba/download/zs/1959-II/1.pdf>

6. Commission to Preserve National Monuments (2021). Saopćenje za javnost u vezi sa urušavanjem Šišman Ibrahim-pašine medrese u Počitelju. <https://kons.gov.ba/publication/read/urusavanje-sisman-ibrahim-pasine-medrese-u-pocitelju?lang=en> [07.12.2025.]
7. De Cesaris, A., Ferretti, L. V., & Osanloo, H. (2014). Iran. Città, Percorsi, Caravanserragli, 1-264. edilstampa.
8. Debeş, T. (2011). Cultural tourism: a neglected dimension of tourism industry. *Anatolia*, 22(2), 234-251. <https://doi.org/10.1080/13032917.2011.593910>
9. du Cros, H., & McKercher, B. (2020). *Cultural Tourism* (3rd ed.). Routledge. <https://doi.org/10.4324/9780429277498>
10. European Commission (2024). Conserving culture and cultural heritage through inclusive and sustainable development. Retrieved from [https://cordis.europa.eu/article/id/449507-cultural-tourism?utm\\_source=chatgpt.com](https://cordis.europa.eu/article/id/449507-cultural-tourism?utm_source=chatgpt.com)
11. Federalno ministarstvo kulture i sporta (2010). Zaštita kulturne i graditeljske baštine: 2003.-2009. <https://www.fmks.gov.ba/download/monografija.pdf>
12. Fejzić, E., Fejzić, I. (2023). O obnovi zidanih munara iz osmanskog perioda u Bosni i Hercegovini, Zbornik radova s okruglog stola “ZNAČAJ OČUVANJA AUTENTIČNOSTI BOSANSKIH DŽAMIJA”, 79-85. Sarajevo: Vakufska direkcija, Institut za islamsku tradiciju Bošnjaka. <https://vakuf.ba/assets/files/1703867833-tradicionalna-bosanskohercegovačka-džamija.pdf>
13. Hadrović, A. (2023): Oriental style city house in Bosnia and Herzegovina: The Gavrankapetanovic family house in Pocitelj near Mostar, *International Journal of Multidisciplinary Research and Growth Evaluation*, 4 (3), p. 877-883
14. Hebib, M. (2020). Počitelj – Sjaj koji blijedi. *Behar*. p. 16. [https://www.academia.edu/44789388/Po%C4%8Ditelj\\_sjaj\\_koji\\_blijedi](https://www.academia.edu/44789388/Po%C4%8Ditelj_sjaj_koji_blijedi)
15. Ismagilova, G., Safiullin, L., & Gafurov, I. (2015). Using historical heritage as a factor in tourism development. *Procedia-social and Behavioral sciences*, 188, 157-162. <https://doi.org/10.1016/j.sbspro.2015.03.355>
16. Kolb, B., & Dumreicher, H. (2008). The Hammām-A Living Cultural Heritage. *International Journal of Architectural Research*, 2, 17-28. <https://s3.us-east-1.amazonaws.com/media.archnet.org/system/publications/contents/5165/original/DPC1902.pdf#page=19>
17. Kreševljaković, H. (1957). Sahat-kule u Bosni i Hercegovini - Prilog za studij konzervacije. *Zbornik za likovne umjetnosti, Naše starine IV*. 17-32. <https://fmks.gov.ba/download/zzs/1957/2-1957.pdf>
18. Kurtović, E. (2014). *570. godina spomena Počitelja (1444–2014)*. Godišnjak Bošnjačke zajednice kulture “Preporod”, 1, 273–277. Dos

19. Kurtović, H. (2007). Kulturna baština Bosne i Hercegovine u funkciji razvoja turizma. *Tranzicija*, 9(19-20), 149-157. Retrieved from <https://hrcak.srce.hr/36275>
20. Lopes, E. R., & Simões, J. (2020). Cultural Tourism and Museum Activity (s). *Journal of Tourism and Heritage Research: JTHR*, 3(4), 107-119. Retrieved from <https://www.jthr.es/index.php/journal/article/view/22>
21. Ložnjak, Ž., Jemrić Ostojić, I., & Cvetinović Vlahović, A. (2023). Razmatranje potencijala storytellinga u razvoju održivog kulturnog turizma: primjer Zagrebačke županije. *ET<sup>2</sup>eR–ekonomija, turizam, telekomunikacije i računarstvo*, (1), 103-112. <https://hrcak.srce.hr/file/427118>
22. Lučić, Z. (2021). Počitelj kao poveznica antike, sadašnjosti i budućnosti. *Bosna Franciscana*, (55), 41-53. <https://www.cceol.com/search/article-detail?id=1008756>
23. McIntosh R and Goeldner C (1990). *Tourism: Principles, Practices, Philosophies* (6th ed.), New York: John Wiley & Sons, Inc.
24. Molinar, C. M. A. (2006). Relaciones entre el turismo y la cultura: turismo cultural y cultura turística en México y en Colima. *Estudios sobre las culturas contemporáneas*, 12(24), 9-33.
25. Moliterni, S., Zulauf, K., & Wagner, R. (2025). A taste of rural: Exploring the uncaptured value of tourism in Basilicata. *Tourism Management*, 107, 105069. <https://doi.org/10.1016/j.tourman.2024.105069>
26. Mousavi, S. S., Doratli, N., Mousavi, S. N., & Moradiahari, F. (2016, December). Defining cultural tourism. In *International Conference on Civil, Architecture and Sustainable Development*, 1(2), pp. 70-75.
27. Mujezinović, N. (2012). Šišman-Ibrahimpasha's hammam in Počitelj: researching, condition analysis and revitalization project, 63-77, Sarajevo: National Committee ICOMOS in Bosnia and Herzegovina. [https://www.icomosubih.ba/pdf/publikacije/FIRDUZ-BEY%20HAMMAM\\_Revitalization%20of%20the%20archaeological%20site.pdf](https://www.icomosubih.ba/pdf/publikacije/FIRDUZ-BEY%20HAMMAM_Revitalization%20of%20the%20archaeological%20site.pdf)
28. Neuts, B., Martins, J., & Ioannides, M. (2025). *Advances in Cultural Tourism Research: Proceedings of the International Conference on Cultural Tourism Advances*, June 2023, Belgium. Springer Nature.
29. Pobrić, A., & Osmanović, M. (2024). COMPETITIVENESS AND SUSTAINABILITY OF THE TOURISM SECTOR OF BOSNIA AND HERZEGOVINA ACCORDING TO OECD. *Revue Roumaine de Géologie / Romanian Journal of Geology*. <https://doi.org/10.59277/rrg.2024.1.05>
30. Razović, M. (2009). Obilježja ponude kulturnog turizma dalmatinskih županija. *Acta turistica nova*, 3(1), 137-162. Retrieved from <https://hrcak.srce.hr/43447>

31. Richards, G. (2018). Cultural tourism: A review of recent research and trends. *Journal of hospitality and tourism management*, 36, 12-21. <https://doi.org/10.1016/j.jhtm.2018.03.005>
32. UNESCO (s.a.). The historic urban site of Počitelj. [https://whc.unesco.org/fr/listesindicatives/5092/?utm\\_source=chatgpt.com](https://whc.unesco.org/fr/listesindicatives/5092/?utm_source=chatgpt.com)
33. UNESCO Institute for Statistics. (2009). UNESCO framework for cultural statistics (FCS). United Nations Educational, Scientific and Cultural Organization. Retrieved from <https://unstats.un.org/unsd/statcom/doc10/Bg-FCS-e.pdf>
34. UNWTO. (2017). Definitions committee on tourism and competitiveness. CTC.
35. Yu, X., & Xu, H. (2019). Cultural heritage elements in tourism: A tier structure from a tripartite analytical framework. *Journal of Destination Marketing & Management*, 13, 39-50. <https://doi.org/10.1016/j.jdmm.2019.05.003>
36. Zhang, S., Hu, T., Zhang, T., Ju, H., & Wang, Y. (2025). Tourism Development of Cultural Heritage Resources Through Conservation Concepts: A Case Study of Ningxia, China. *Land*, 14(1), 201. <https://doi.org/10.3390/land14010201>

## TUZLA – CITY OF URBAN TOURISM

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DOI: 10.35666/25662880.2025.11.226

UDC: 911.37:338.48(497.6 Tuzla)

**Abstract:** With the continuity of population and urban development since the Neolithic, which was dominantly based on the secondary sector and natural resources, Tuzla has developed into a regional centre of successful economic, social and urban development. At the beginning of the 21st century, Tuzla was affected by the transformation of the economic sector, which increasingly relies on tertiary and quaternary activities, including tourism. Thanks to the recognized potential and the newly built tourist infrastructure, Tuzla today records a constant growth in tourist traffic, which is increasingly taking part and even becoming one of the most vital sectors of the economy of this city. Today, Tuzla offers tourists a rich urban, cultural, historical and other tourist content with a built quality tourist infrastructure. The number of tourist accommodation capacities has increased, namely hotels and private apartments, flats and rooms, which can respond to both the number of visitors and the quality of service. The operation of the Tuzla International Airport, with increasingly better opportunities for expansion and opening new lines to numerous European cities, greatly contributes to tourist attendance. In Tuzla today we can talk about two seasons of urban tourism, the summer season in which the salt lakes "Pannonica" play a dominant role, which are part of the urban content, and the winter season, which is somewhat shorter, but still very popular. However, Tuzla is also visited in the off-season, when it becomes a centre for business, congress, educational and other forms of thematic tourism. Some forms of tourism record tourist traffic throughout the year, such as health tourism, for which this city has become very recognizable in the last twenty years.

**Keywords:** tourism, urban development, thematic tourism, urban tourism, Tuzla

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## INTRODUCTION

Urban tourism is one of the thematic forms of tourism, which has become a phenomenon today. Cities with their urban content, cultural and historical motifs and other tourist resources have become attractive destinations for tourists. Existing resources in cities are increasingly used in the function of urban tourism, with the aim of creating positive effects on the economy and overall development. Indicators that point to this are: increase in tourist consumption, increase in income, number of overnight stays, higher employment, but also the extension of the tourist season and numerous other effects. Today, urban tourism is in continuous growth and development, and cities have become an increasingly strong motive for tourism.

With the continuity of population since the Neolithic and urban development, which was dominantly based on the secondary sector and natural resources, Tuzla has developed into a regional centre of successful economic, social and urban development. At the beginning of the 21st century, Tuzla was affected by the transformation of the economic sector, which increasingly relies on tertiary and quaternary activities, including tourism. Thanks to the recognized potential and the newly built tourist infrastructure, Tuzla today records a constant growth in tourist traffic, which is increasingly taking part and even becoming one of the most vital sectors of the economy of this city.

Today, Tuzla offers tourists a rich urban, cultural, historical and other tourist content along with built quality tourist infrastructure. In the last few decades, there has been a significant increase in the number of tourist accommodation facilities, i.e. hotels and private apartments, apartments and rooms, which can respond to both the number of visitors and the quality of service. The operation of Tuzla International Airport, along with better opportunities for expanding and opening new routes to numerous European cities, greatly contributes to tourist attendance. In Tuzla today, we can talk about two seasons of urban tourism, the summer season in which the salt lakes "Pannonica" play a dominant role, which are part of the urban content, and the winter season, which is somewhat shorter, but still very popular. However, the number of visitors to Tuzla is not negligible even in the off-season, when it becomes the centre of business, congress, educational and other types of thematic tourism. Some forms of tourism record tourist traffic throughout the year, such as health tourism, for which this city has become very recognizable in the last few decades.

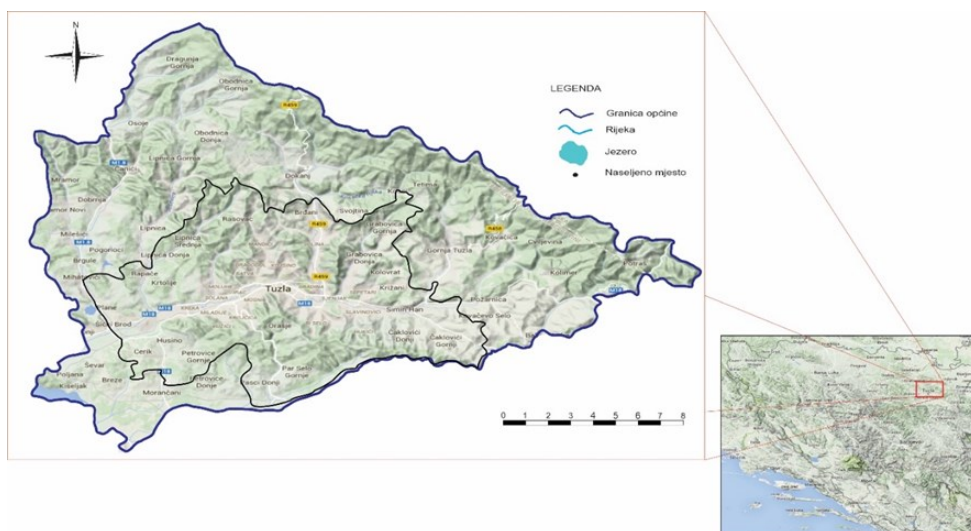
The goal of this work is to contribute to the development of tourism as a major promoter, both in the city of Tuzla, the Tuzla Canton and the country, in the region and beyond. The aim is also to enrich the tourist offer, and to strengthen awareness of the importance of implementing urban and cultural heritage into the tourist offer. Several scientific research methods and procedures were used for the purposes of the

research, starting from the analysis of available sources and information on the research area, field research and surveys of people employed in tourism, direct observation method, the cartographic method, the Adria Topo digital map, etc.

## CITY OF TUZLA

The area of the city of Tuzla is located in the Jala basin, in the region of Northern Bosnia, more precisely in the Spreča-Majeвица with Semberija subregion, in the northeast of Bosnia and Herzegovina. The city of Tuzla is the administrative, economic, cultural and educational centre of Tuzla Canton and the third largest city in Bosnia and Herzegovina (Stjepić Srkalović, et al, 2021). The city of Tuzla has a rich history, a continuity of population that goes far into the past, according to some archaeological traces to the Neolithic, and everything in Tuzla city area is related to rich deposits of salt.

The city experienced urban development under the Ottoman rule, and with the arrival of Austria-Hungary, industry developed, including the hotel industry, as well as some modern forms of tourism, specifically spa tourism. The name of the city of Tuzla comes from the Turkish word tuz (salt), formerly Soli, and the river whose hydronym is Jala flows through the city, the name of which originates from the Greek word yalos, which means salt in a broader sense. Throughout its entire history, the city has been characterized by multi-ethnicity and multi-confessionalism, and an open city (city on whose emblem the gate is symbolically wide open).



**Fig. 1.** Geographical position of city of Tuzla

## TOURISM IN TUZLA

Until 1990, industry and mining represented the backbone of the economic development of the City of Tuzla and its surroundings, with the largest participation in the realization of overall economic effects, namely in employment with about 43% and in the social product with about 50%. In this period, industry was the main driver of the city's economic development. In the last 20 years or so, the economy in the area of the city has experienced a strong transformation, i.e. restructuring, which includes changes in the physiognomy and structure of the company, technological, economic, financial, market and organizational. Today, Tuzla is the city with the most developed tertiary-quaternary sector, where over 70% of the economically active population is employed.

The greatest growth is recorded by the trade function, both in terms of the number of newly registered business entities and the number of employees. Tourism is experiencing exceptional growth, and the offer consists of tourist facilities and localities, mostly located in the city itself, which attract a large number of both domestic and foreign tourists, the most notable of which is the "Pannonica" complex, which has been visited by over 6 million tourists since its inception.

Until the opening of the Pannonica complex, tourism and tourist movement had only negligible numbers and touristic movements. Until 2003 the city had three hotels:

- Hotel "Bristol" and the Slana Banja health resort (opened in 1962, demolished in 2010, where the "Mellain" hotel was built, opened in 2015);
- Tuzla Retirement Home, opened in 1980;
- Hotel "Tuzla", opened in 1985.

The aforementioned hotels mainly provided catering and restaurant services, and accommodation was mainly sought by transit passengers and business travellers.

### Urban tourism in Tuzla

Urban or city tourism includes all forms and services that take place in urban areas. The motives to travel and an interest in getting to know the destination, its history, customs, way of life, art, heritage etc., but also includes sightseeing, visiting museums and galleries, theatres, concerts and parties, visiting for educational reasons, shopping, festivals and events, conferences, congresses and business meetings, visiting restaurants, bars and night clubs (UNWTO, 2022).



**Fig. 2, 3.** Pannonian lakes and Square of Freedom in Tuzla (photo: Željka Stjepić Srkalović)

For the development of the tourist offer of city tourism, investments, protection and maintenance of the cultural and historical heritage and its integration into the tourist offer at the local and regional level are necessary. The cultural manifestations, events, festivals, religious celebrations, concerts, sport competitions, galleries, museums, libraries, archives gather numerous tourists throughout the year, extend the tourist season and contribute to higher tourist consumption and investments in the development of such events would recover the tourism offer of the city of Tuzla (Stjepić Srkalović, et al, 2023).

However, Tuzla recorded tourist traffic much earlier. The construction of the first Hotel Bristol in Tuzla, built during the Austro-Hungarian era in 1908., transformed Tuzla into a centre of urban life, with a European spirit. After decades of stagnation in tourism, today it is justifiable to speak of Tuzla as a tourist destination, especially a destination of urban tourism, whereby during the summer season, the most significant tourist attraction and symbol of the city are the Pannonian Lakes (fig 2).

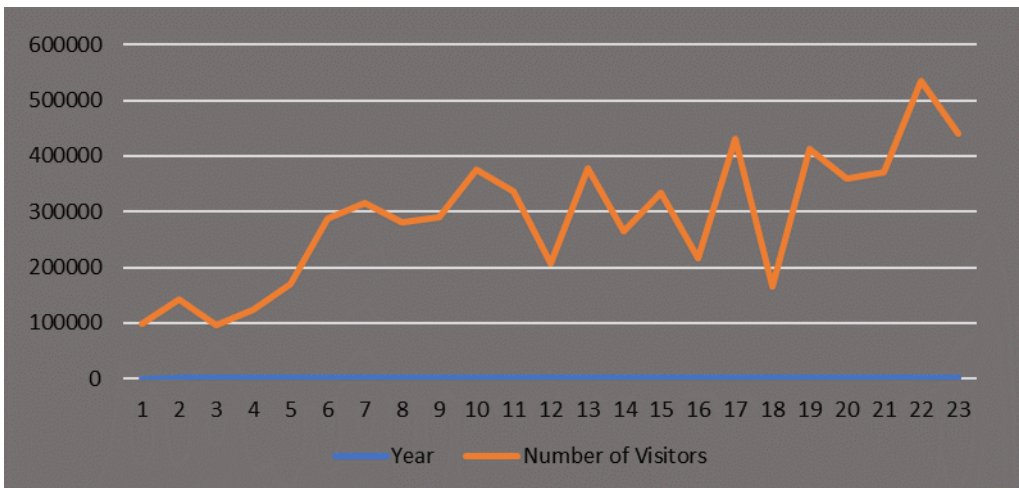
## Pannonian Salt Lakes

The Pannonian lakes, as part of the urban content, have become a unique tourist attraction, as the only salt (artificial) lakes in Europe. They were opened in 2003., and since then the economy of Tuzla has been significantly transformed. The Pannonian Salt Lakes belong to a group of tourist values with pronounced recreational characteristics. Of particular importance for the development of tourism are their aesthetic and medicinal properties, and they are a frequent destination for a large number of visitors to stay there. They stand out as centres of the city's open-air swimming area and represent the basis for the development of tourism in Tuzla (Nezirović, Krdžalić, 2024). Next to the lakes is the Archaeological Park - a Neolithic Settlement - which displays a historical settlement on the water, and the Geological Museum of the Pannonian Sea. The significance of this complex is evident in the table below.

**Tab. 1.** Number of visitors to the Pannonian Salt Lakes in the period 2003-2025.

No.	Year	Number of Visitors	No.	Year	Number of Visitors	No.	Year	Number of Visitors
1.	2003	99000	9.	2011	291000	17.	2019	430000
2.	2004	143000	10.	2012	375000	18.	2020	165000
3.	2005	97000	11.	2013	337000	19.	2021	412000
4.	2006	124000	12.	2014	207000	20.	2022	360000
5.	2007	169000	13.	2015	378000	21.	2023	370000
6.	2008	289000	14.	2016	265000	22.	2024	534000
7.	2009	316000	15.	2017	335000	23.	2025	440000
8.	2010	281000	16.	2018	217000	-	-	-
Total								6634000

Source: The Tourist Board of the City of Tuzla



**Graph. 1.** Number of visitors to the Pannonian Salt Lakes in the period 2003-2025.

In addition to the Pannonica complex, today Tuzla has tourist facilities that also have an independent tourist effect, such as event tourism, Spa and health tourism, and others. There is a large number of other tourist facilities that act in a complex or complementary manner such as: Cultural and Cultural-historical tourism, Congress tourism, Shopping tourism, Educational tourism, Sport tourism, Religious and faith tourism, Industrial tourism, Excursion tourism, Business tourism, Transit tourism, Residential tourism, etc.

#### Manifestations/events as a segment of urban tourism

In addition to the mentioned manifestations that are under the auspices of the City of Tuzla, there are numerous manifestations in the city supported by the Government of Tuzla Canton and manifestations supported by the Federal Government. The following table only lists the events that are supported directly by the City of Tuzla.

**Tab. 2.** Manifestations/events in the city of Tuzla in 2024.

No	Name	Location and date	No	Name	Location and date
1.	Napredak days	Franciscan monastery St. Peter and Paul Tuzla, February /March 2024.	19.	Tuzla bicycle ride	Tuzla, August 2024
2.	Independence Day of B&H	Tuzla, 1.3.2024.	20.	Moto meetings of the Moto club " Gear grinder "	Tuzla, August 2024.
3.	Tuzla Youth Days	Bosnian cultural centre (BKC) Tuzla March/ April 2024.	21.	Festival " Theatre without Borders "	Tuzla, Summer Garden of the National University Tuzla theatre, August/ September 2024.
4.	Spring in Tuzla	Square of freedom Tuzla, April and May 2024.	22.	Honey Fair and bees of the product "MEDENA TUZLA"	Tuzla, September 2024.
5.	Coffee Fair and chocolates	Tuzla, Croatian Cultural centre (HKC), May 16 – 18, 2024.	23.	Bike Fest " Pannonica "	Complex Pannonian Lakes, September, 2024.
6.	Tuzla Wine Fest (TZWF 2024)	Hotel " Salis" Tuzla, 08.06.2024.	24.	Underground Music Festival	Tuzla, September 2024.
7.	Festival of Contemporary women	Tuzla Theatre (and others locations in the city Tuzla), June 2024.	25.	Agricultural Fair	Breške, October 2024.
8.	Opening summer tourist seasons on Pannonian lakes	Complex Pannonian lakes (June 2024)	26.	INTERBIFEP	International gallery portrait " Tuzla", Every 2 years, September / November 2024.
9.	Astronomy Days	House of flame and peace, Tuzla June/ July 2024	27.	Celebrating Liberation Day Tuzla – October 2	Square of freedom, Tuzla, October 2, 2024.
10.	International choral "Lege Artis" championship Tuzla	Bosnian cultural Centre (BKC) Tuzla, June 2024.	28.	International literary "Cum Grano Salis" meetings	Tuzla, October 2024.
11.	<b>Summer in Tuzla</b>	<b>Tuzla, June - August 2024.</b>	29.	Tuzla Film Festival (TFF)	Tuzla, Bosnian cultural centre (BKC) Tuzla, October 2024.
12.	Tuzla Youth Festival	Tuzla, July – September 2024.	30.	Theatrical days	Tuzla, Public University Tuzla Theatre, October - November 2024.

13.	Dzumbus Festival	Zlatarska street, Tuzla, July – August 2024.	31.	Festival " Sevdalinko u srcu te nosim"	Tuzla, Bosnian cultural centre (BKC) Tuzla, November / December 2024.
14.	Tuzla Guitar Week – Week of guitars	Tuzla, International gallery portrait and Ismet Mujezinović Studio, June / July 2024.	32.	TKT Fest Theater Cabaret	Tuzla, November / December 2024. Chamber scene of Hotel Tuzla
15.	Tuzla marathon	Tuzla, July 2024	33.	Christmas concert	Franciscan monastery St. Peter and Paul, Tuzla December 2024.
16.	International Arts Festival of youth" Kaleidoscope "	Tuzla, Park at Musical school, July 23-27, 2024.	34.	Winter in Tuzla	Square of freedom in Tuzla, December 2024. January 2025.
17.	Concert orchestra BalsiKa ,, Ethno festival"	Tuzla, August 2024.	35.	Children's New Year	Square of Freedom in Tuzla, 31.12.2024.
18.	Art colony "Breske "	Breške , Tuzla, June – July 2024.	36.	Public New Year's Eve and replay	Square of Freedom in Tuzla, 31.12.2024. and 01.01.2025.

Source: The Tourist Board of the City of Tuzla

## Health tourism

Spa tourism includes spas as places that are characterized by pronounced health-recreational functions due to the wealth of natural elements (thermo-mineral springs, noble gases, climatic elements, vegetation, clean air). Treatment in thermal mineral waters, use of mineral springs, drinking water and inhaling the released gases from the water at the source, is an ancient therapeutic method, old almost as much as civilization (Spahić, Temimović, 2014). Previous analyses indicate that in Tuzla SPA tourism, along with bathing tourism, is highly developed, dominant form from which the creation of tourist arrangements begins (Stjepić Srkalović, Srkalović, 2022).

Health and wellness tourists travel to revitalize the body and mind (weight reduction, fitness, anti-stress, etc.), to relax (massages, special treatments), or to perform specialized operations. Therefore, people do not need to be sick to opt for health and wellness tourism, but their motive is to improve and prevent their overall health. Dental tourists travel abroad because of lower prices, as well as better quality and more accessible dentist services (Stjepić Srkalović, et al, 2023).

Health tourism in Tuzla is developing on the basis of centuries-old tradition and unique natural resources, primarily salt water, and highly professional medical infrastructure. Key elements are the Pannonian Lakes, numerous specialized medical

centres, and wellness and spa hotels built in the (central) urban zone of Tuzla (Kudumović Dostović, 2017).

### Cultural motifs as a segment of urban tourism in Tuzla

The cultural heritage of Tuzla includes a rich mixture of religious buildings, industrial heritage, historical buildings and significant movable heritage. Only a few cultural motifs, that are of noticeable interest to visitors to this city are:

- Freedom Square: The largest square in Bosnia and Herzegovina and the centre of city life and historical attractions (fig 3);
- Museum of Eastern Bosnia: Collections of archaeology, ethnology, history and art;
- Baroque Building: Built in 1900, (a replica) is an interesting architectural structure from the Austro-Hungarian period;
- International Portrait Gallery: Collection of Ismet Mujezinović and numerous other valuable works of the gallery;
- National Monuments: The city has numerous monuments from different historical periods, including the Ottoman, Austro-Hungarian, socialist and modern times;
- City parks and green spaces...

### Business tourism

Business tourism and tourists have become an important segment in the tourist services of the Tuzla. The problem is that participants in business trips are omitted from the definition of tourists and these movements are not recorded as touristic. Nevertheless, this group of travellers spends significant funds on tourist facilities and services and spends a large part of their time as a tourist as part of a business trip. Business tourists are characterized by higher consumption than tourists in other forms of tourism, they hold larger gatherings outside the main tourist season and thereby influence the increase in the profitability of accommodation and other capacities in the destination. In addition to the above characteristics, it should also be pointed out that business tourism also represents prestige. The Tuzla needs to develop business tourism capacities that would enable them to develop this form of tourism in order to build an image and a favourable position on the state or regional tourism market.

## Trade in the function of urban tourism in Tuzla

The greatest growth in Tuzla is recorded by the trade function, both in terms of the number of newly registered business entities and the number of employees. As a trade centre with a century-old tradition, Tuzla offers a diverse offer that serves tourists and enriches their experience of the city. From modern shopping centres to traditional crafts (Bingo city centre and central city market).

## Tourist infrastructure – accommodations

Today, Tuzla has great accommodation options, including hotels of different categories, guesthouses, apartments and hostels, which suit different budgets and needs. In addition to hotel facilities, it has a wide range of private accommodation and apartments, ideal for longer stays at reasonable prices. Based on the data presented, there was an increase in the number of accommodation capacities in the city of Tuzla in all 4 basic categories (hotel, motel, B&B and private accommodation), in the last 6 years (2019 - 2024).

The largest increase in the number of registered accommodation capacities was recorded in the category of private accommodation (apartments, studio-apartments, holiday homes and rooms in households), by 770% compared to 2019, and 250% when all types (categories) of accommodation capacities are taken into account, for the same observed period.

**Tab. 3.** Overview of the number of accommodation facilities in the city of Tuzla in the period 2019 – 2024

Category	Year					
	2019.	2020.	2021.	2022.	2023.	2024.
<b>Hotel</b>	14	15	15	15	15	15
<b>Motel</b>	5	5	3	6	6	6
<b>Privat accommodation</b>	9	15	21	56	71	79
<b>B&amp;Bs</b>	2	3	1	5	5	5
<b>Total</b>	30	38	40	82	97	105

Source: The Tourist Board of the Tuzla Canton

**Tab. 4.** Overview of tourist traffic for the city of Tuzla in the period from 2019 to 2025 (I-VI)

<b>Time period</b>	<b>Total number of tourists</b>	<b>Number of domestic tourists</b>	<b>Number of foreign tourists</b>	<b>Total number of overnight stays</b>	<b>Number of overnight stays of domestic tourists</b>	<b>Number of overnight stays of foreign tourists</b>
<b>I-VI 2025.</b>	16.959	9.642	7.317	33.257	21.208	12.049
<b>2024.</b>	38.052	21.485	16.567	76.534	45.723	30.811
<b>2023.</b>	34.528	19.127	15.401	69.277	36.401	32.876
<b>2022.</b>	32.295	18.164	14.131	65.855	34.258	31.597
<b>2021.</b>	24.641	14.501	10.140	48.603	26.347	22.256
<b>2020.</b>	13.207	9.262	3.945	29.861	17.546	12.315
<b>2019.</b>	31.570	18.158	13.412	63.765	31.069	32.696

Source: The Tourist Board of the Tuzla Canton

In 2024, the total number of tourists increased by 10.2%, and the total number of overnight stays increased by 10.5%. Visible increase in the number of domestic tourists by 12.3% and an increase in overnight stays by 25.6% compared to the previous year 2023. Increase in the number of foreign visits by 7.6%, but a decrease in overnight stays by 6.3%. The average length of stay of tourists was 2.1 days. These data show that in 2024, the city of Tuzla recorded the highest number of domestic and foreign tourist arrivals, as well as the number of overnight stays so far! The largest number of tourists came from the following countries: Serbia, Montenegro, Croatia, Slovenia, Austria, Germany and China, and these tourists also achieved the highest number of overnight stays, along with tourists coming from Turkey and the United States of America.

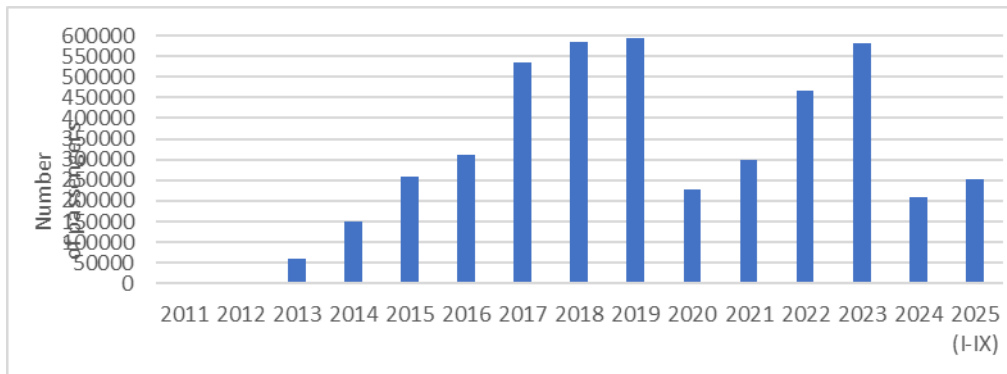
### **Tourist infrastructure –transport**

Due to the insufficiently developed traffic infrastructure (road and rail traffic), Tuzla has a relatively favourable geo-traffic position that enables connections both with other municipalities of Bosnia and Herzegovina and with neighbouring countries (Croatia and Serbia). The operation of the Tuzla International Airport has a particularly positive effect on the geopromotional position (fig 4-7).

**Tab. 5.** Tuzla International airport traffic (2011-2015)

Year	Number of passengers	Year	Number of passengers
2025 (January-September)	251.333	<b>2017</b>	<b>535.596</b>
2024	207.769	2016	311.398
<b>2023</b>	<b>582.336</b>	2015	259.074
2022	466.596	2014	151.353
2021	299.031	2013	61.513
2020	228.603	2012	4.191
<b>2019</b>	<b>593.050</b>	2011	4.527
<b>2018</b>	<b>584.610</b>		

Source: <https://tuzla-airport.ba/>



**Graph. 2.** Tuzla International airport traffic (2011-2015)

According to published reports, the Tuzla International Airport (TZL) records a significant increase in the number of passengers and flights in 2025, and the opening of new lines has also been announced. It currently operates 17 lines to nine countries. During the summer, seasonal charter flights are established to the most attractive summer destinations in Turkey and, if necessary, to other countries.

The international airport in Tuzla has received 284,310 passengers since the beginning of 2025., and the projections until the end of 2025. are such that this number will amount to approximately 300 thousand people. On the other hand, the plans for the next year are very ambitious and it is stated that in 2026., the goal is to have up to 800,000 passengers. The positioning of two base planes is planned along with the introduction of new lines. According to projections, this should contribute to the number of 800,000 passengers in the coming year.

When it comes to new lines, a total of nine of them will be introduced in two cycles. The first four will be available in December 2025. to Cologne, Hamburg, Maastricht and Malmo, and the remaining five will be operational from March 2026., namely Berlin, Frankfurt, Gothenburg, Larnaca and Paris Beauvais. In addition to these, the direct line Tuzla - Bratislava has been confirmed, and flights will be operated four times a week.



**Fig. 4.** International airport „Tuzla“, 2025.

Photo: Mujo Mušić



**Fig. 5.** International airport „Tuzla“, 2023.

Photo: Semir Ahmetbegović



**Fig. 6.** Tourism students - International airport „Tuzla“, 2024.

Photo: Salem Salihbašić



**Fig. 7.** International airport „Tuzla“, 2024.

Photo: Armina Imamović

## CONCLUSION

Tuzla, known as the "city on a grain of salt", attracts visitors with a unique combination of natural attractions and rich history. The tourist offer is highlighted by the Pannonian Lakes, but also offers numerous motifs, cultural sights, and a rich gastronomic offer. Today, Tuzla offers tourists a rich urban, cultural, historical and other tourist content with a built quality tourist infrastructure.

The number of tourist accommodation capacities has increased, namely hotels and private apartments, flats and rooms, which can respond to both the number of visitors and the quality of service. The operation of the Tuzla International Airport, with increasingly better opportunities for expansion and opening new lines to numerous European cities, greatly contributes to tourist attendance.

In Tuzla today, we can talk about two seasons of urban tourism, the summer season in which the salt lakes "Pannonica" play a dominant role, which are part of the urban content, and the winter season, which is somewhat shorter, but still very popular. However, Tuzla is also visited in the off-season, when it becomes a centre for business, congress, educational and other forms of thematic tourism. Some forms of tourism record tourist traffic throughout the year, such as health tourism, for which this city has become very recognizable in the last twenty years.

## REFERENCES

1. Stjepić Srkalović, Ž., Ahmetbegović, S., Kudumović Dostović, F. (2023): Potential Tourism Products of Tuzla Canton, *Journal of Tourism and Hospitality Management*, 8, 128-155.
2. Srkalović D., Stjepić Srkalović Ž. (2021): Način korištenja tla u gradu Tuzla, *Acta geographica Bosniae et Herzegovinae* 15, Sarajevo.
3. Nezirović, S., Krdžalić, D. (2024): pannonian salt lakes in the City of Tuzla as an example of a creative destination in the 21st century tourism, *Journal of Tourism and Hospitality Management*, 10.
4. Spahić, M., Temimović, E., (2014): Termomineralne vode Bosne i Hercegovine u funkciji balneološkog turizma, *Acta geographica Bosniae et Herzegovinae* 2.
5. Stjepić Srkalović, Ž., Srkalović, D. (2023): Balneological tourism in northeastern Bosnia, *Acta geographica Bosniae et Herzegovinae* 18.
6. Kudumović Dostović, F., (2017): Sjeveroistočna Bosna, geografska monografija, Geografsko društvo TK, Tuzla.
7. Strategija razvoja turizma Tuzlanskog kantona za period 2024-29, 2022.
8. Strateške smjernice razvoja i promocije turizma u Općini Tuzla, Tuzla, Novembar, 2007.
9. Turistička zajednica grada Tuzla, <https://tztz.ba/ba/>
10. <https://www.klix.ba/biznis/privreda/ambiciozni-planovi-za-aerodrom-u-tuzli-zele-imati-800-hiljada-putnika-u-2026-godini/251130072>

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