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## Architectural Peculiarities of the Wooden Minarets in Balkans Region: Examples of Montenegro

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Article Info	Abstract
Received: 04/06/2023 Accepted:27/06/2023	Since the region of Balkans was seized by the Ottomans during the 14th century, providing a proper praying spaces, particularly mosques, was among important tasks. Thus, lively images of the settlements were assembled by the commonly seen elements including mosques too. It was common to build mosques with wooden minaret, in areas rich with wood, within the residential
Keywords	neighborhoods, while the corpus of the mosques could have been made of different buildings materials or even fully made of wood. This study aimed to define the peculiarities of the wooden
Architectural Heritage, Conservation, Wooden Minarets, Balkan, Montenegro	<ul> <li>minarets in Balkan. Referring to the wooden minarets as the most distinguished element of residential areas four types of these mosques were documented within the Balkans and Rhodes. This study showed the main peculiarities and parts of the wooden minarets, which could be considered as the main characteristic elements according to which also the mosque typology was distinguished, and accordingly, the architectural characteristics of the wooden minarets in the Balkan. While defining the typology, two main headings were determined. In the first, the relationship between the mosque and the minaret are used as main reference, and in the second, it is classified according to the characteristics of the minaret as their most prominent architectural elements.</li> <li>Further on, defined criteria (founders, materials, shape, dimensions, position of minarets etc.) were used to compare wooden minaret mosques in Monte Negro, which was selected as case study area for this research. This study contributes to the knowledge about mosques with wooden minarets in the Balkan region. General physical peculiarities are discussed as well as the intangible character of mastering in constructing wooden minarets. Also, clarification is done about minaret peculiarities.</li> </ul>

#### **1. INTRODUCTION**

The word minaret, which is derived from the word "*nur*" as a word meaning, has been widely used in the sense of "*the place where light or fire comes out*" or "*luminous maqam*" [1]. Generally, it is accepted to be defined as an element of the mosque used to call for a pray according to its purpose.

Hillebrand (1994) mentioned as the first minaret the one constructed in Basra under the caliph Mu'awiya in c.45/665 at the instance of his governor in Iraq, Ziyad b. Abihi. Afterwards the minaret was added to the mosque built in Fustat in 673 in the name of Amr bin As [2]. There are also studies which elaborates origin of minaret considering them as a form of tower [3]. The support of this ideas is found in its symbolic meaning as an emphasis of new power and dominance of Islam as new religion. There are also scholars who found minarets similarly as the Christians bell towers. Also, word etymology is one of roadmap for discovering the origin of the minarets and its purpose.

In the early Islamic periods, the shape of the minaret varied and most common one was squared or even spiral [4]. However, its architectural formation is based on a different origin in every Islamic society and culture [5], [6]. Therefore, the minaret, which was recognized as a complementary element of the mosque has different characteristics in terms of position, material, form and decoration comparing to those seen in

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a very wide geography from the Iberian Peninsula to India. Integration with the building in terms of delicacy, function and proportion, which is the most important feature of the classical Ottoman minaret type, also determined the characteristic of the minarets. It started with the Edirne Üç Şerefeli Mosque in 1437 and this approach reached its most mature level in the classical Ottoman period [1].

Due to its strong image, it was used not only in mosques but also in different structures such as madrasahs. The minaret was used as a sign of Friday mosques in the early Muslim Turkish societies, which mostly led a nomadic life, and became a more prominent architectural element than a mosque in the vast steppes [7]. With the eagerness to use the minaret in the building, different techniques were applied in the construction of the minaret. In addition, there have been different applications in the construction technique, materials, shaping and decoration that change in different geographies. One of them is wooden minarets. This type of mosques and their minarets are sample of the "modest works of the past which have acquired cultural significance with the passing of time, which is important issues for considering structure as historic monuments" [8]. In this study, the subject of wooden minarets has been discussed in order to contribute to the research of Islamic architecture and aesthetics along with the understanding of "Conservation of cultural heritage in all its forms and historical periods rooted in the values attributed to the heritage" [9]. The aim of this study was to show the peculiarities of the local wooden minarets in Balkan, which have an important place in the treasury of Ottoman architecture. Referring to the Nara document on authenticity [9], here is to mention craftsmanship and skills in structuring wooden minarets. Their authenticity is linked to the experience and knowledge of local masters who built them carrying intangible aspects of values.

So far, researches about the minarets predominantly include examples of masonry minarets. However, the minarets made of stone and brick have lost much of their authenticity for many reasons, especially in the upper parts. In contrary, studies on wooden minarets are quite limited. Among the main reasons for this are the weak patronage effect on wooden minarets, their general thought as a temporary solution, their wide distribution in geography, and the neglect of the local effect until now.

Some of the significant researches about minarets are done by Gottheil (1910), Hartmann (1910) in which minarets are for the first time discussed from an orientalist point of view [5], [6]. These studies are focusing its Islamic origin and relationship with the tower structures built before it. Furthermore, Creswell (1926) is focusing the minarets typology in Egypt while Hutt (1977) is focusing the minaret form in Central Asia [2], [7]. Likewise, in Turkey, Çetintaş's (1942) article "*Minarelerimiz*", Arseven's (1950) "*Minare*" article, Esin's (1978) "*Türk Minaresinin Orta Asya'daki Öncüleri hakkında*" articles are focusing on minarets development and how changed its form in the different places with different materials in Turkish-Islamic architecture [10], [11], [12]. Bakırer's "*Anadolu'da XIII. Yüzyıl Tuğla Minarelerin Konum, Şekil, Malzeme ve Tezyinat Özellikleri*" (1971) is the first study focused on minarets [13]. Another remarkable study is done by Kulaç's (1979) in his doctoral thesis in which the analysis of the minaret structure with two and three in Edirne and Istanbul [14].

In regard to the specific focues on wooden minarets typological study was prepared by Eyice (1963) in his work "*İstanbul'da Bazı Cami ve Mescid Minareleri*" [15]. Also, Yardimci's (1996) work "*Geçmişin Sessiz Tanıkları Tahta Minareler*" is another valuable contribution as a general introduction about the wooden minarets [16]. The most comprehensive study focusing on wooden minarets was prepared by Becirbegovic (1990) in her book "*Džamije sa drvenom munarom u Bosni i Hercegovini*" In this study, the typological features of wooden minaret mosques in Bosnia and Herzegovina are explained [17]. Apart from these, Bağbancı (2018) examined the geometrical properties of wooden minarets in Sakarya region. In addition, in terms of construction technique has been revealed between wooden minarets and stone / brick minarets. There are also several master theses related to the wooden minaret mosques in Turkey such as those with valuable case studies of Konya and Sivas [18], [19].

When it is about Balkan region, recent contribution was given by Jahic, as an overview of the restored mosques with wooden minarets in Tuzla, Bosnia and Herzegovina. It is stated that result of the undertaken interventions resulted in changed authentic appearance of these mosques [20]. Also, mosques were

compared in terms of congregation place, minaret form and minaret top cover. Regarding minarets of these four mosque Jahic explained that the two of the mosques are clad with plain vertically set planks (*taraba*) while other two are cladded with herringbone pattern (*šašavci*) [20]. Also, Jahic gave comparative list of mosques with wooden minaret providing information for 28 examples across Bosnia which include name, period of construction, type of mosque regarding gallery (porch with or without gallery), dimensions of praying rooms, porch and gallery [21]. Beside these, Foco in his master thesis also included wooden minaret mosques with brief update on these types which were previously detected by Becirbegovic in her book [22].

In final, findings of this study attempt to contribute to the knowledge about mosques with wooden minarets of Balkan region, as a type of historic vernacular building which throughout time didn't gain much attention. However, with this paper not only physical peculiarities are to be discussed but also intangible character embedded such as the knowledge or mastering in constructing wooden minarets, from structure toward details.

#### 1.1. Purpose / Scope

Findings of this study attempt to contribute to the knowledge about mosques with wooden minarets of Balkan region, as a type of historic vernacular building which throughout time didn't gain much attention. However, with this paper not only physical peculiarities are to be discussed but also intangible character embedded such as the knowledge or mastering in constructing wooden minarets, from structure toward details. This research focuses on the wooden minarets built within the Balkans, which were especially common type of mosques built in Sandžak<sup>1</sup> (in particularly Montenegro) and in Bosnia and Herzegovina (in particularly northern part of the country known as Bosnia). Considering their values to go beyond solely physical appearance, they were characterized as a significant contributor to the picturesque historic cultural landscapes of the whole Balkan region.

#### 1.2. Method

The analysis of this particular research started with seeking to understand the historic background about emergence of this mosque type within the settlement settings as well as their importance and role within the built environment. Further on, their form and mastering in constructing these types of minarets, the relation of the minarets with the corpus of the mosque, their architectural characteristics and setting are peculiarities according to which several types are distinguished. While defining the typology, two main headings were determined. In the first, the relationship between the mosque and the minaret are used as main reference, and in the second, it is classified according to the characteristics of the minaret as their most prominent architectural elements. Under the first heading, the mosque's founder, its location in relation to its environment, its structural material, the condition of the mahfil, the porch place and the location of the minaret were analyzed. In the second heading, the base, the shaft plan, the architectural form of the minaret balcony (serefe) and the upper cover elements of the minaret were examined.

For better understanding case studies from Montenegro are selected to be compared in term of the basic characteristics. Building on the previous research on this subject and taking into consideration available information and on-site inspections, several key factors were taken into account to define their peculiarities, in particular relevant physical attributes, their founders and the foundation (vakfiye / endowment). Examples included in this study are the preserved mosque with satisfying level of integrity and while authenticity is at different level. It is also detected that beyond examples found in the Montenegro there are also the three more type of these structures in B&H, Bulgaria and one from Rhodes, each located in one of these countries.

<sup>&</sup>lt;sup>1</sup> Sancak(Tr.), Sandžak (Bs.) is a historical geo-political region in Serbia and Montenegro. The name Sandžak derives from the Sanjak of Novi Pazar, a former Ottoman administrative district founded in 1865.

### 2. WOODEN MINARETS MOSQUES OF BALKANS

Looking at different type of the mosques built across the Ottoman Empire, one of the distinguished types are mosques with wooden minaret characteristic for the area where the wood was broadly applied as a construction material. Thus, similarly after the conquest of Balkans by the Ottomans since the 14th century, among a number of mosques built across the Balkans those with wooden minarets were among most common type for the wood rich area. After the conquest, new settlements were established while developing existing one. To assure proper place for praying there was a need for more mosques to be built, especially after significant increase of Muslim populations. This also included neighborhood mosques with wooden minarets which were rather modest by its character, intended to be used predominantly by local inhabitants.

The form of the wooden minarets mosques usually hasn't been built in a grandeur manner. They were built by the local masters and they have rather subtly marked the gathering place and in a way emphasized the center of a settlement or more likely a micro center of residential neighborhood called "*mahala*". The whole Balkan showed quite same approach. Form of the wooden minaret mosques emerged from the tradition of residential architecture built as a simple cube with hipped roof. Thus, these types of mosques became part of historical landscape perfectly incorporated into the approach of developing residential neighborhoods, which included following aspects: to follow the terrain morphology, to use in situ materials, to respect human scale, and to preserve vistas and to provide enough sun for each house. Furthermore, this type of mosques was usually built as beneficiary of different founders mostly ordinary citizens while there are some instances which can be related to the highly ranked officials.

Among the Balkans countries Bosnia and Herzegovina leads in the number of constructed mosques with wooden minarets. Becirbegovic, mentioned old statistic which indicated that 70% of all 1120 built mosques were type with wooden minarets [10]. However, by the time many of the once exiting mosque haven't survived especially situation is even more changed after the 1992-1995 war. So far, no comprehensive work was launched on this issue. Foco, in his master thesis reconsidered condition after the war of the mosques fully constructed by wood which Becirbegovic detected, stating that some of them are not present anymore [22]. Also, referring to the work of Foco, Commission for National monuments of Bosnia and Herzegovina [23] mentioned four of them to be still standing. In other countries situation is quite different as there was less detected mosques with wooden minarets comparing to Bosnia and same is today. So far it is known that there are still standing two mosques in Macedonia, sixteen in Montenegro, three in Bulgaria.

Following previous researches and available information on still standing mosques it is possible to distinguish typology, in accordance to the building material of the body of mosque, the layout and according to the position of the minaret (Table 1).

			Typology by Mosque						
Founder	Typology by Environment		Structural Material	Mahfil		Porch Place		Position Minaret	of
Sultan	Rural	Wide Courtyard	Stone	One floor (along one, two or three)	There is	Ground floor	Open	Integrated the roof	to
Woman Sultan	Urban: Neighborhood / Mahala	Small Courtyard	Brick	Upper mahfil		Width upper floor	Closed	Atteched to mosque	the
Pasha	Urban: Bazaar / Quarter		Wooden		Null			Mianret projection	as
Reyah			Mixed (Stone and Conc.)					Deatached f the mosque	

Table 1. Typology of wooden minaret mosques in Montenegro

Thus, regarding main building material of the mosque except of minaret it is possible to see usage of stone, wood, bricks and adobe. The least applied were mosques completely maid of wood. According to the Becirbegovic (1990) there were such examples in Bosnia and in Bulgaria (*Yedi kizlar* mosque in Podkova village near Kircaali).

Layout of the mosque: According to the layout of the mosques with wooden minarets it is possible to define differences which appeared in general organization of the praying space (*harim*). Thus, plan which is mostly rectangular or squared (more rarely) could contain porch or else to be totally closed (some cases got closed porched over time) while inner space is distinguished as single space which according to Becirbegovic (1990) vary according to the *mahfil* arrangement as single space with no *mahfil*, or *mahfil* along one, two or three walls and those which have also gallery or *mahfil* in two levels. Interior of the main *harim* are equipped as usually with *mihrab* (niches indicating direction), *member/minbar* (pulpit), *çurs/kursi* (pulpit) and *mahafil* (divided area usually for female) which are also in many cases made of wood. In almost all cases both porch and *harim* is under single pitched roof, in particularly hipped type or pyramidal hipped. In the porch section roof is usually supported with the columns or extended walls. Porch could be built only at ground floor or else they could also have upper floor. Main entrance to the porch and mosque as well is set symmetrically in the middle. Porch also contain spaces called sofa which are used as praying spaces. In regard to the position of minaret the majority was built with the minaret appearing from the roof body, rarely attached or next to the mosque or else as a console. So far example of minaret as projection section was not found within the Balkan, and only in Rhodes there is such example.

# **3.** WOODEN MINARETS OF THE BALKANS: SPECIFICITIES / CHARACTERISTIC / ARCHITECTURAL PECULIARITIES

During the Ottoman period across the Empire variety of the materials (stone, brick, or timber) have been used for constricting minarets, and similarly the minaret shape is distinguished as cubic, cylindrical, or polygonal. Furthermore, Classical Ottoman minarets may be assumed to be the final stage of the Turkish minarets with slim, cylindrical, polygonal shafts, and conical roof [23]. Wooden minarets in the Balkans were built with a characteristic formation in regions with dense Bosnjak population. Wooden minarets seen in Skopje, Rhodes and different settlements of Bulgaria had not shown a prevalence in their regions. The position of minaret the majority was built with the minaret appearing from the roof body, rarely attached or next to the mosque or else as a console. So far example of minaret as projection section was not found within the Balkan, and only in Rhodes there is such example.

While classical masonry minarets are composed of a foundation, base (*kaide*), transition element shoe (*pabuç*), cylindrical body/shaft (*gövde*), balcony (*serefe*), upper part, spire, and ornament and stairs, wooden minaret are rather more simplified in line with the possibilities of wood to be used in structuring slim structure and therefore shorter than masonry one. (Figure 2). There is no upper part, and almost no ornaments are visible. Also, most of the cases the lower part is absent as they are mostly built as integrated with the roof. Generally, referring to the wooden minarets, there are four types of mosques with wooden minarets distinguished within the Balkans and Rhodes (Table 2, Figure 1)

	Peculiarities	Examples			
Rectangular layout	wooden minaret	Bulgaria (Wooden minaret divided from the mosque)			
	attached to the mosque	Montenegro and Bosnia & Herzegovina			
	wooden minaret	Montenegro, Bosnia & Herzegovina			
	integrated with to the roof	Bulgaria, Bosnia & Herzegovina (The mosque and the minaret fully made of wood)			
Squared layout	Min. integrated with to the roof	Montenegro and Bosnia & Herzegovina			
Protrusion Minaret	mosque with min. as protrusion	Rhodes			

Table 2. Four types of wooden minarets mosques



Figure 1. Different type of wooden minarets in order to Montenegro, Bosnia and Hercegovina, Bulgaria and Rhodes

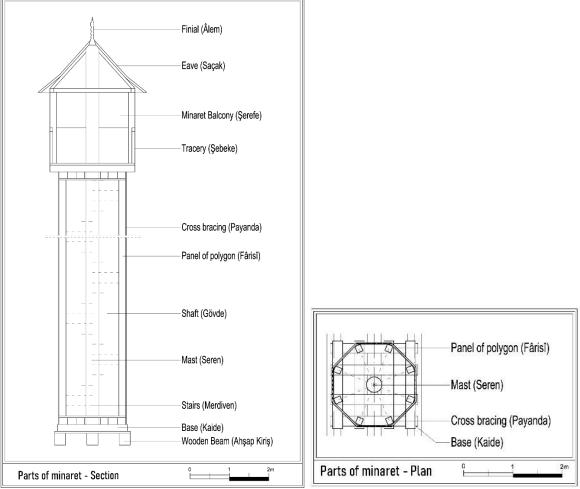


Figure 2. Minaret parts: section and plan

Wooden minarets have the same thickness along its whole height together with timber core as posture (mast) which is standing as a single peace from the bottom till the top. Serefe or balcony is slightly enlarged comparing to the main minaret body. Generally, wooden minarets do not have a base (kaide) and transitional part shoe (pabuç) sections as in masonry minarets if they are arousing from the roof unless they are attached to the mosque and their lower part is made as masonry one.

An upper body of shaft is not found. However, in some examples there are only openings without any emphasized given to the balcony (with no protrusion). Opening of minaret vary from narrow and small toward wide one. In case of minaret with balcony there could be seen some of o decoration- ornaments rather than muqarnas. Furthermore, outer wall of minaret is usually seen as straight plank with emphasized corners of polygonal shape or fishbone pattern cladded with small planks. The classification prepared according to these features is shown in the Table 2.

Table	3.	Minaret	typology
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Minaret Position	Base	Shaft Plan	Balcony (Şerefe)	Openings of the <i>Serefe</i>	Cover
				the şereje	
In harim / integrated with roof	Pedestal	Octagon	None	Wide	One sloped hood
At the mahfil / integrated with rf.	Stone wall	Polygonal	Wide protrusion	Middle size	Two sloped hood
Porch / integrated with roof	Wooden wall		Small protrusion	Small	Three slop. hood
Outer wall / integrated with roof					Flat hood
Adjoining to wall					

In case where minaret is integrated with the roofs, they are usually set toward outer wall where it is on right and entrance toward the porch. Base of minaret is composed by grid of beams set on the ceiling beams (under roof) or it is intersecting entrance wall. On the base of minaret (beam grid) the central posture mast (*seren*) is set and edge pillars which are stiffened by rings (bracing elements). Mast is used as a core and anchoring the staircase with pillars. As the staircase rise by rotating around the mast its outer circumference also forms the shaft (*gövde*). Shaft is made as polygonal form (eg. 8,10,12,13 or 16 sides in Sarajevo (Becirbegovic, 1990). Beside this generally applied technique of structuring minaret there is also type without edge beams whose outer wall is maid only with planks and in some cases, they are additionally stiffened by roof beams and rings. The shaft extends to the cheer section (balcony or gallery called şerefe) where the azan is read. Balcony of the minaret is the most ornamented part of the minaret. The upper cover consists of the part that functions as the roof, the ornamental element and the parts of the finials (âlem) to which symbolic value is attributed (**Figure 3**).

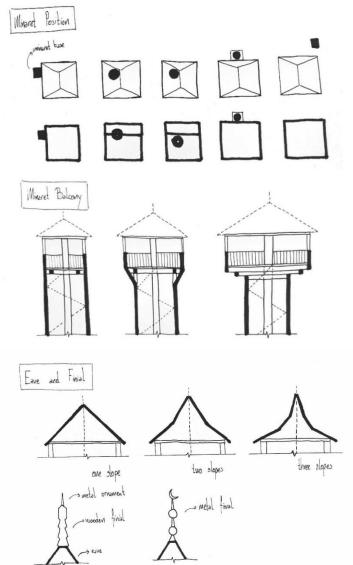


Figure 3. Different types of minaret position according to mosque, minaret balcony, eaves and finials

# 4. CHARACTERISTICS OF THE WOODEN MINARET MOSQUES OF MONTENEGRO: COMPARISON AND DISCUSSION

Currently there are only 10 mosques with wooden minarets still present on the site, while there are 18 more detected once to be standing with wooden minarets, before than they were replaced with newly constructed one, in a new manner and with no reference to the original structure. In the region *Old Mosque* (Tuzi), *Donjum Muriçima Mosque* (Bar), *Byelo Mosque* (Herzeg Novi), *Rosuljama Mosque* (Pljevlja), *Hadzidanuşa / Çarşijska Mosque*, *Haznadar-agina Mosque* (Bijelo Polje); *Ali Paşa Mosque*, *Loznoj Mosque*, *Gubavcu Mosque* (Kolashin), *two mosques* in Berana, *two mosques* an *Martinovçima Mosque* in Gusinje, *a mosque*, *Sultan Murat IV Mosque*, *Bişevu Mosque* in Rozaj, *a mosque* in Baç are wooden minarets mosques that have not survived today (**Figures 5**).

This study includes 10 of still standing mosques classified according to the anticipated typology ahead. For better comprehension the peculiarities are summarized in the **Table 3**, according to which it's possible to do detailed comparison of these examples and extract the common features. Mosques with wooden minarets detected to be still preserved in Montenegro are dating back to the periods 17-19th century. They have been built with stone masonry walls, with corpus of the whose dimensions vary from 5 (4,95m) - 8 (8,26m) by 7.5m - 9 (9.58m) with height of 4,3-7,2m while most common are between 4,2-4,8m. There is an exceptional case of the Hajdar Selim Pasha mosques as the biggest one whose dimensions are 13m x 15m with height of 7,25m.

According to the analyzed mosques of Montenegro, it is evident that they all are set within the three distinguished groups (according to the minaret position in relation to the mosque). Predominantly they are set in the group of rectangular plan with integrated minaret except the two that have attached masonry minarets rectangular layout with attached wooden minaret *Hadzi Alija Mosque* (Pljevlja, Taşlıca) and *Haydar Selim Pasha Mosque* (Berane, Petnjica), rectangular layout with integrated minaret *Kucanska Mosque* (Rozaj), *Haso Ferovic / Sabovica Mosque*, *Hünkâr / Careva Mosque*, *Redzepagica Mosque* (Plav), *Mahmut Pasha Busatli / Vezirova Mosque*, Čekića / *Cekajve Mosque* (Gusinja) and squared layout with integrated minaret *Djonbaljica Mosque* and *Celjaj Mosque* (Gusinje, Donje Vusanje). In final it should be mentioned that within the Montnegro there was no detected mosque with wooden minaret as protrusion as the one found in Rhodes<sup>2</sup> or fully made of wood<sup>3</sup> which is detected to be constructed in Bosnia and Herzegovina nor rectangular layout with wooden minaret divided from the mosque as the one found in Bulgaria.

The founders were mostly from Rayah (members of community) but there is also case where the founder were Sultan and Aga (highly ranked officials), even though this was rare and one woman a member of rich family (daughter of highly ranked official). Also, this was due to the fact that these types of mosque were built to provide place for praying rather than to also express level of cultural architectural economic and other level of the society. Among inspected mosques it is detected to have been built in both urban and rural environments as central or neighborhood mosques (as most common type).

All the mosques are built by stone and they have porch except mosque of *Haydar Selim Pasha Mosque* (Berane, Petnjica). This mosque has several unique peculiarities and it is the only three storeies` mosque in Montenegro. Among still standing wooden minarets mosques of Montenegro there are those which are built on the masonry base while upper part of the shaft is typical for wooden minarets. Further on, most commonly minarets are constructed with slightly emphasized minaret balcony (*serefe*) which is

<sup>&</sup>lt;sup>2</sup> Hafiz Mehmet Aga Mosque in Rhodes has unique features in terms of structure and form. The mosque was built by Haci Mehmet Aga in H. Muharrem 1235 / M. 1819. The mosque was built of wood over stone maid ground floor. The minaret body expands from the upper eaves and turns into a closed balcony. According to documents and endowment records, the mosque underwent extensive repairs in 1820, 1875 and 1948. Last repair was done in 2004 [24].

<sup>&</sup>lt;sup>3</sup> The mosque in Priluk, near Tuzla (north of Bosnia) is one of the rare examples fully made of wood. According to the inscription on the mosque it was built in 1148. (1735/36) by Sejh Mustafa and Sejh Hasa. Over time span some changes were applied such as roof tiles (since 1927), enlarged openings (during restoration in 1963), porch was closed, and minaret got rounded shape rather than polygonal as it used to be. Interior of the mosque have preserved authenticity in particularly main portal that used to be main entrance to the mosque, mihrab and mimber with decoration and column [17].

predominantly with small openings. Here is to mention example which has no emphasis of the gallery and it is integrated with the shaft of the minaret as the one seen in Gusinje Gnojbalaj. Shaft of the minaret is seen to have eight sides and sixteen sides. Comparing to wooden minarets in other parts of region here there is none preserved example with open gallery (eg. example in B&H in mosque Lipa in Gracanica).

Place	Name	Date	Founder	Typology by Environment		Material	Width cm	Length cm	Height cm
Berane, Petnijca	Haydar Selim Pasha	16th century	Governor	Rural	Neighborhood	Stone	1311	1583	725
Plav	Haso Feroviç	1880	Reaya	Urban	Neighborhood	Stone - Concrete	826	1091	440
Plav	Hünkâr Mosque	1471	Sultan	Urban	Quarter	Stone	822	958	464
Plav	Fatıma Hanım	1774	Governor Woman	Urban	Neighborhood	Stone - Concrete	653	790	480
Gusinje	Mahmut Paşa	1765	Governor	Urban	Quarter	Stone	1058	1264	475
Gusinje	Çekiça	1687	Reaya	Urban	Neighborhood	Stone	787	1316	424
Gusinje	Xhanbolaj	1910	Reaya	Rural	Neighborhood	Stone	765	925	440
Plevlje	Hacı Ali	1763	Reaya	Urban	Neighborhood	Stone	755	755	525
Rozaj	Kuçanska	1830	Governor	Urban	Quarter	Stone	495	841	432
Gusinje	Çeljaj	1710	Reaya	Rural	Neighborhood	Stone	834	946	435

Table 4. Wooden minarets mosques in Montenegro classified table

Minarets are cladded with fishbone pattern small planks while corners of polygonal shafts are emphasized except *Hadzi Alija Mosque* (Pljevlja, Taşlıca) which has only straight planks. None of them is found to have muqarnas while in few examples there are decoration as wooden ornaments set in the transition towards *serefe* in most of them. Also, opening of the *serefe* are very simply constructed as small rectangular openings, or arched openings. Regarding the state of conservation and the level of their authenticity and integrity, the analyzed mosques are detected to be in a different condition ranging from those to have highly preserved architectural elements. (e.g. Pljevlja - Hadzi Alija Mosque) or with excessive changes of authentic values.



Figure 5. Some important cities in Montenegro

Hadzi Alija Mosque (Pljevlja, Taşlıca) architectural elements are preserved to a large extent. A small wooden porch was added after the last repair on 1998. Haydar Selim Pasha Mosque (Berane, Petnjica) which was originally made of stone on the lower floor and wooden on the upper floor, was enlarged in the early 1900s and gained its present appearance. Finally, a comprehensive repair was carried out in 2005. (Meshihat of Islamic comunity in Monte Negro) The new minaret was constructed in 1967 made of stone and brickes, and after demolished and replaced by wooden. Agovic mentioned restoration of wooden elements in 1984, but it is not mentioned if the minaret was constructed in this year [25]. Kucanska Mosque (Rozaj) has the original local architectural features of the mosque are in largely preserved. Haso Ferovic / Sabovica Mosque (Plav) has recently undergone an extensive restoration during which a new reinforced concrete structure was built around the main walls while original stone walls remained inside. Also, mahfil was extended to half of the harim. In front of the entrance door of the mosque, a three-domed porch is built using reinforced concrete and shorter than the main front façade. Hünkâr / Careva Mosque's (Plav) the wooden mahfil of the building, which has largely preserved its originality, has been recently renovated. Redzepagica Mosque (Plav) was repaired several times and recently extensive restoration was done. In this repair, the L-shaped concrete mahfil was added. Mahmut Pasha Busatli / Vezirova Mosque (Gusinja) has a small courtyard, has largely preserved its authentic architectural elements. Čekića / Cekajve Mosque (Gusinja) was built in 1687 as one of the oldest mosques in the area that has survived to the present day. It has in largely lost its original architectural value. The current wooden roof of the mosque is covered with sandwich panels. Currently the mosque and roof got a new colour which is out of context and endanger values of the mosque. The wooden minaret, which is the most original architectural element of the mosque, sits on the wall separating the harim and the porch. The newly made metal finial is three-sphered and is finished with an ornamental tug at the top. Djonbaljica Mosque (Gusinje, Donje Vusanje) is not in use today and in the same town *Celjaj Mosque* lost authentic appearance (Figure 6 and Figure 7)

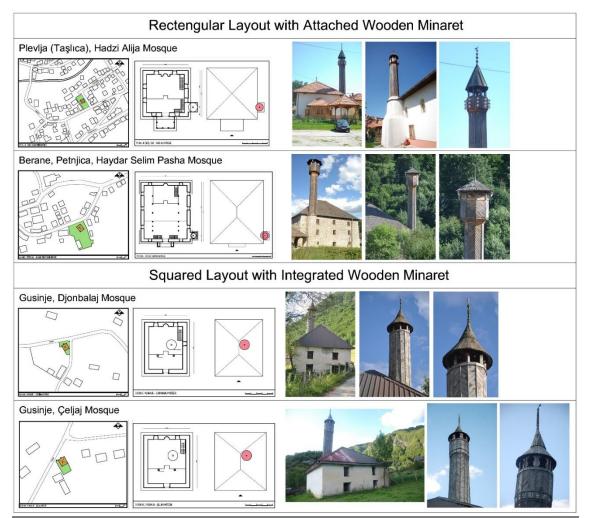


Figure 6. Wooden minaret mosques in Montenegro, Type 1 and type 2

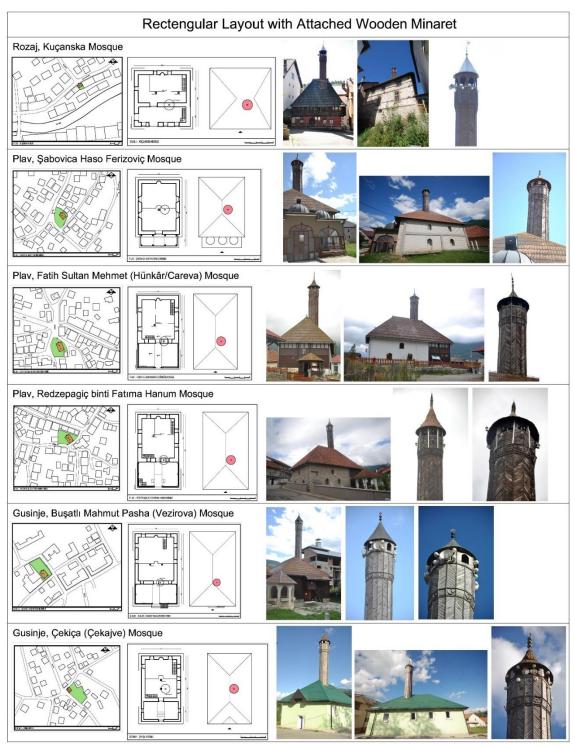


Figure 7. Wooden minaret mosques in Montenegro: Type 3

### 4. CONCLUSION

Within the frame of the Balkans settlements developed since the 14the century onward, when the Ottoman period started in the Balkans, neighborhood mosques are perfectly fitting into the applied principles. It is easy to comprehend their simplicity with no emphasis nor attention paid to the monumentality. The only slightly accented element was the minaret, with purpose to call for pray and therefore even the minarets were perfectly integrated into the images of the Ottoman neighborhoods.

Having in mind main that the purpose of these mosques was exclusively to serve as places for performing praying they have been made in a simplest manner, which include applying local materials and knowledge of local masters. Thus, it can be concluded that it was most logical approach of structuring mosques with wooden minarets within neighborhood in the area rich with wood. It is found that mosques with wooden minarets could be classified in several groups according to the minaret's peculiarities and its position (integrated with mosque or attached to it). Also, to avoid the confusion in regard to the terms used in Turkey for parts of minarets the same are defined and represented in both English and Bosnian language as well as indicating peculiarities of each part after knowledge is summarized from existing literature and inspecting example on site. Further on, the paper indicated the two main way of structuring these minarets with pillars and/or only with planks. Also, it is found that finishing of the minarets are in the form of planks or as fishbone pattern cladding.

Mosques with wooden minarets analyzed in this paper are still standing examples from Monte Negro, particularly the limited number of preserved one, with satisfying level of authenticity and integrity. They have served to define architectural peculiarities of this type of structures arranging their characteristic according to the defined parameters including beneficiaries, setting, position of minarets, dimensions, building materials, type of minaret according to the type of base, shaft shape, characteristics of gallery's elements-protrusion, hood, banister etc.

However, it is also found that very limited examples are still present in other countries of the region, except in Bosnia and Herzegovina where in fact they have been most common type but there is also significant decrescent in number of authentic structures. Today mosques with wooden minarets are vulnerable category of heritage. Current condition indicates that in addition to the damages during war time (case of B&H) also in a recent time in entire Balkans lack of attention and knowledge about this type of structure caused also loss of many of them, and recently many of them are replaced by newly designed mosque with no reference to the authentic one.

The results of this paper will be used as base for further research about mosques with wooden minarets in the Balkans, as well as during any further work on their protection, as there is a need to increase awareness about their values. This paper indicated among its findings that the values of these mosques are beyond solely in architectural elements and they include associated values such as mastering in constructing wooden minarets (traditional building techniques) as well as the setting within neighborhood as a meaningful component without which the image of urban or rural ensembles are not complete. Therefore, mosques with wooden minarets have inherent bond with its surrounding environment as contribution to the overall historic landscape.

#### REFERENCES

- [1] Ayverdi, E.H. (1985). Osmanlılarda Minare, İstanbul: İstanbul Fetih Cemiyeti.
- [2] Creswell, C. K. A. (1926). The Evolution of the Minaret, with Special Reference to Egypt. *Burlington Magazin*, (48):134-140.
- [3] Hillebrand, R. (1994). Islamic architecture, Form, function and meaning. Edinburgh: Edinburgh University press.
- [4] Grabar, O. (1996). The formation of Islamic Art. Conneticut: Yale University press.
- [5] Gottheil, R. J. H. (1919). The Origin and History of the Minaret. *Journal of American Oriental Society*, (30):132-154.
- [6] Hartmann, R. (1919). Manara=Minaret, Memnon, (3): 220-223.
- [7] Hutt, A. (1977). The Central Asian origin of the eastern minaret form. *New series VIII* (Old series XLIV), 157-162.
- [8] ICOMOS. (1964). International Charter For The Conservation And Restoration Of Monuments And Sites (The Venice Charter). Retrieved December 10, 2022, from: https://www.icomos.org/charters/venice\_e.pdf
- [9] ICOMOS. (1994). Nara document on authenticity. Retrieved December 10, 2022, from: www.icomos.org/en/179-articles-en-francais/ ressources/charters-and-standards/386-the-naradocument-on-authenticity-1994
- [10] Çetintaş, S. (1942). Minarelerimiz. Güzel Sanatlar, (4):57-74.
- [11] Arseven, C.E. (1950). Sanat Ansiklopedisi, İstanbul: Milli Eğitim Basımevi.
- [12] Esin, E. (1978). Türk minaresinin Orta Asya'daki öncüleri hakkında. *Atatürk Üniversitesi Edebiyat.* Fak. Araştırma Dergisi-Albert Louis Gabriel Özel Sayısı, 104-147.
- [13] Bakırer, Ö. (1971). Anadolu'da XIII. Yüzyıl Tuğla Minarelerinin Konum, Şekil, Malzeme ve Tezyinat Örnekleri. *Vakıflar Dergisi*, (9):337-365.
- [14] Kulaç, Ü. (1979). Untersuchungen der türkischen Minarette aus Naturstein und Ziegeln unter besonderer Berücksichtigung der Wendeltreppenformen und-konstruktionen. Berlin:doctoral thesis.
- [15] Eyice, S. (1953). "İstanbul'da Bazı Cami ve Mescid Minareleri". Türkiyat Mecmuası, 10, 247-268.
- [16] Yardımcı, M. (1996). Geçmişin Sessiz Tanıkları Tahta Minareler. Kültür ve Sanat, (30):62-64.
- [17] Becirbegovic, M. (1990). Dzamije sa drvenom munarom u Bosni i Hercegovini. Sarajevo: Veselin Masleša.
- [18] Çeşnial, H. (2022). Sivas Camileri'nde Ahşap Minareler, unpublished Master Thesis. Antalya:Akdeniz Üniversitesi.
- [19] Sündüs, M.A. (2018). Konya Mescidlerinde Ahşap Minareler ve Ezanlıklar, unpublished master thesis. Konya:Selçuk Üniversitesi.

- [20] Jahic, E. (2019). The Neighbourhood Mosque With Wooden Minaret In Bosnia And Herzegovina From 16th And 17th Century: Four Examples Of Restoration In Tuzla Region, *METU Journal of Faculty of Architecture*, 36(11):1-22.
- [21] Jahic, E. (2021). Extended galleries above the porch in two mosques: Qualitative analysis of mosques with wooden minaret in Bosnia and Herzegovina. *Heritage and Sustainable Development*, 3(2):78–88.
- [22] Foco, M. (2012). Upotreba drveta u tradicionalnom graditeljstvu smjernice za vrednovanje i zaštitu, Unpublished Master Thesis. Sarajevo:Faculty of Architecture, University of Sarajevo.
- [23] Commission. (2013). Commission for National monuments of Bosnia and Herzegovina. Odluka. Retrieved December 10, 2022, from: <u>http://aplikacija.kons.gov.ba/kons/public/uploads/odluke\_bos/Zivinice\_Drvena%20dzamija%20Priluk%20kompl%20BOS.pdf</u>
- [23] Bağbancı, B.M. & Köprülü Bağbancı, Ö. (2018). The Effects of Construction Techniques and Geometrical Properties on the Dynamic Behavior of Historic Timber Minarets in Sakarya, Turkey. Shock and Vibration. Article ID 9853896.doi:10.1155/2018/9853896.
- [24] Economides, R. (2007). Mehmet Aga Mosque. Historical and Architectural Documentation. *Proceedings of The International Symposium, 15 Years of Restorations in the Medival Town of Rhodes,* 147–162.
- [25] Bajro, A. (2001). Dzamije u Crnoj Gori. Podgorica: Almanah.