

Mosques of Ottoman Period in Bosnia and Herzegovina: A typological classification of historical forms

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ABSTRACT

At the beginning of the 20th century, more than a thousand mosques originating from the Ottoman period (1463-1878) were recorded in Bosnia and Herzegovina. Some estimates point that the number currently is much smaller. The goal of this study is to establish a typological classification of historical forms that were developed in more than four centuries. The diversity of patterns comes from the mixed influences ranging from the developed Ottoman style to the local material conditions and regional building traditions. This study used a qualitative evaluation of many characteristic examples to identify prevalent features that point to different types and subtypes of mosques. The evaluation of various examples used both firsthand observation and the written sources that are readily available. Thirty-six historical domed mosques were founded in Bosnia and Herzegovina, and their architecture is essentially a reflection of the architectural pattern predominantly from the 16th-century classical repertoire. However, a significantly higher proportion of mosques have sloping roofs where they strongly suggest domestic influences. The paper defines distinctive roofed mosque types where common characteristics predominate. Certain variations from the standard show a clear need for flexibility, adaptability, or improvisation. The study shows that the fundamental concept of the Turkish single-unit mosque, which was developed in Anatolia beginning in the 12th century, underwent a broad interpretation in Bosnia and Herzegovina throughout the Ottoman period, as evidenced by a variety of distinct types of roofed mosques.

Keywords: Bosnia and Herzegovina, Historical mosques, Ottoman architecture, Typology

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1. Introduction

Mosques continue to draw the most attention and are the subject of debate among art historians and professionals, as well as ordinary people and the public. Among the many historical types of buildings, mosques have kept their essential role in today's Muslim environments. In addition to the growing number of modern designs, old mosques still attract the attention not only of the faithful who visit them for prayer but also of others curious about antiquities and heritage. On almost all meridians of the world, the architecture of the mosque shows an exceptional diversity of forms and expressions. It stems from several principal factors, primarily the characteristics of the stylistic period in which they arose but also other influences such as specific cultural and economic circumstances, regional or local artistic tradition, climate, materials, and other specific conditions.

It's worth remembering that Bosnia was the Ottoman Empire's westernmost province. Even though the mosque's concept originated in Anatolia, where aesthetic traits were well established, regional influences throughout the Balkan regions left their imprint, particularly where local traditions were stronger. Even in Bosnia and Herzegovina's relatively small territory, there are impacts, such as the considerable use of wood in Bosnia and Herzegovina and stone in Herzegovina. A few well-known structures were created by architects from the Empire's major cities, but the majority were the work of unknown local builders. In addition to domestic carpenters and masons, foreign stonemasons, particularly from Dalmatia, were often engaged in the building. As a result, many mosques were built in addition to classical Ottoman monuments, showing a variety of solutions and shapes. Mosques in Bosnia and Herzegovina do not have the architectural significance of the Ottoman Empire's overall opus. However, given that this peripheral province of the Empire was often subjected to wars and conflicts, one could claim that the construction activity was extraordinarily fruitful and that the artistic reach was relatively broad.

The architecture of historic mosques in Bosnia and Herzegovina has been elaborated in local literature as part of the overall architectural legacy of the Ottoman period. Interest in the heritage of the Ottoman period in the westernmost province of the empire began during the Austro-Hungarian rule (1878–1918) when some European historians, artists, and writers directly met and wrote about various forms of four centuries of oriental heritage. H. Renner [13] recorded his impressions of the cultural, built, and natural sights of many towns, villages, and regions of Bosnia and Herzegovina. The publication is illustrated with drawings by the German artist Leo Arndt (1857–1945). There are also drawings of smaller and larger mosques on several pages. R. Meringer [18] researches and writes about the people's houses in Bosnia and Herzegovina. At the end of the publication are illustrations of four mahalle mosques in Tuzla. They were valuable during the renovation of the two remaining mosques with a wooden minaret in Tuzla. As early as 1891, Zarzycki, Arndt, and Stratimirović [24] gave a very valuable description of the Aladža Mosque in Foča. However, it was not only foreign authors who noticed the architectural heritage. S. Kemura (1863–1917) made an outstanding contribution to the preservation of the architectural heritage of Sarajevo. In addition to the name of the founder, year, and other data, he records the shape and size, materials from which the mosque was built and renovated, but also other specific features worth noting [14].

After the collapse of the Austro-Hungarian monarchy in 1918, many authors from Bosnia and Herzegovina and beyond explored the Ottoman heritage, including mosques, especially those larger and more artistically valuable. Their publications provide primarily a historical background but also a qualitative presentation of the building. Deeper analyses were done mainly in the case of the most important domed monuments, such as, for example, Gazi Husrev Bey's Mosque in Sarajevo, Aladža Mosque in Foča, and Ferhad Bey's Mosque in Banja Luka [6] [5] [22].

A study of less prominent examples with the aim of analyzing typological characteristics was conducted by M. Bećirbegović, who published her work on mosques with wooden minarets in Bosnia and Herzegovina [4]. It brings a valuable typological division into domed mosques and mosques with a hipped roof and distinguishes the latter according to the type of minaret, stone, and wooden. The publication presents the architectural characteristics of many examples. As mosques with a hipped roof and a wooden minaret are the most numerous, the author considered that they deserved attention to be explored in more detail. Her work shows that these mosques are the result of local builders and domestic tradition.

Knowing that many mosques were built in various forms and architectures across Bosnia and Herzegovina during the Ottoman period (1463–1878), this study aims to set up the classification and characteristic types of historic mosques. It tends to give a clear and concise picture of the types of mosques and their characteristic forms. In earlier works, the architectural heritage from this period is most often presented based on famous monumental buildings from the 16th century, however, they make up only a small number of the total number of mosques. Thus, the values of different examples from the entire period are equally explored here. Although there are nuances and differences in shapes, size, construction, and decoration, it is possible to recognize

common features and set up the characteristic types of mosques from the Ottoman period in Bosnia and Herzegovina. This study was conducted by qualitative research of mosques from the Ottoman period in Bosnia and Herzegovina to set up a typology of historical forms. The method of classifying mosques is based on prevailing characteristics. The historical forms are classified into typology starting from the basic classification into domed and roofed mosques and then narrowing down to a few sub-concepts that include other features besides the shape of the roof. Mosque analyses were based on key literature as well as site visits to typical mosques. The study considers a small number of mosques that no longer exist but are significant in the development of particular types.

2. Ottoman legacy in Bosnia and Herzegovina

Although the Ottomans conquered its southeastern areas several decades earlier, the medieval kingdom of Bosnia formally ceased to exist with the conquest of the fortified towns of Bobovac, Jajce, and Ključ in May 1463. However, due to the efforts of the Hungarian king Matthias Corvinus to take over Bosnia, the cities of northern Bosnia such as Srebrenik, Teočak, and Jajce were finally annexed to the Ottoman Empire only at the beginning of the 16th century [8] [23].

In the period after the conquest, part of the population converted to Islam. It is believed that the new religion was mostly accepted by members of the Indigenous Bosnian Church, and by members of other denominations. Although the motives for conversion were often opportune, it is undeniable that the arrival of the Ottomans in Bosnia stopped the persecution of Bosnian Christians by the Pope as well as the Catholic diocese through the Bosnian royal leadership. Although there is often controversy about the reasons, numbers, and motives for the acceptance of the conqueror's religion by part of the population of medieval Bosnia, the fact is that Islamization, in addition to Albania, was more pronounced than in other Balkan countries [3]. Along with the acceptance of religion, Islamic culture was gradually accepted, which permeated all aspects of everyday life, but also various forms of artistic expression such as poetry, decorating furniture and everyday things, woodcarving, calligraphy, carpet making, etc. The native Muslims equally accepted the new architectural forms and types, with which they had not met before. Thus, the Ottoman way of shaping living space as well as the construction of various profane, religious, and infrastructural buildings marked both larger cities and towns, as well as the smallest settlements [6] [21]. However, out of many buildings from the Ottoman period (1463–1878), only a small number remained. In addition to the preserved buildings, their remains, or ruins, many written documents (*vakfiye*, *sijil*) testify to the developed construction activity. Among the remaining monuments, certain types, such as *hammams*, madrasas, and *hans*, have long since lost their original purpose and significance, so today they can have a museum or some other function. In contrast to these, thanks to their unaltered purpose and continuous use, mosques have mostly been preserved. In addition to these, stone bridges, clock towers, public fountains, and some *tekkes* still serve their purpose.

As one hadith speaks of the value and reward that one who builds a mosque deserves (even if it is as big as a heron's nest), Muslims have always emphasized the importance of building mosques. Thus, mosques were among the first Ottoman construction projects in Bosnia, among others. As there are no reliable data on the foundation of some mosques, at least an approximate time of their creation can be traced from the relevant written sources. In addition, the time of the foundation can also be inferred from the site itself. If it is in the oldest core of the bazaar, it could be concluded that it is, if nothing else, at least the location of the oldest mosque. After another mosque was built, the oldest one took the name Atik Mosque (Old). Another argument that it is the oldest and sometimes the only mosque in a small town (*kasaba*), is the name "Imperial" or "Emperor's" mosque. The reason is that it was built after the conquest of a city in the name of the then emperor (sultan). So, it is obvious that it was built before the others.

Before the Second World War, 1173 mosques were recorded in Bosnia and Herzegovina, and 108 in Sarajevo [4]. Most of these date from the Ottoman period, while a small number were rebuilt during the Austro-Hungarian monarchy (1878–1918). Today, the number of mosques from the Ottoman period is much smaller. Many of

them were built from the 15th to the beginning of the 17th century, which corresponds to the classical period in Ottoman architecture. Of the total number, only thirty-eight were covered with a dome, while the rest had a sloped wooden roof. The domed mosques mostly date from the 16th century and are striking examples of the classical Ottoman style. It is difficult to argue with certainty about the earliest mosque on the territory of Bosnia and Herzegovina, but a negligible number of them were certainly built before the final fall of the Kingdom of Bosnia.

3. Mosque types and typical elements

Many mosques in Bosnia and Herzegovina are generally square, nearly square, and sometimes slightly elongated. Domed forms are associated with square plans while mosques under the sloped roof vary, and can be square too but also rectangular in plan. Whether domed or “roofed”, historical mosques in Bosnia and Herzegovina are mostly modest compared to major Ottoman domed mosques. These single-unit mosques with a porch and a single minaret originate from Anatolia in the early 13th century and were firstly built by Seljuks and further perfected by the Ottomans and other Anatolian Beylics (*Beylik*) in the 14th century [17]. This rudimental type has been spread over the Balkans, both in small masjids as well as in roofed or domed mosques.

As elsewhere in the Muslim world, in Bosnia and Herzegovina, the entire floor of the mosque is stretched with carpets and used in communal prayer. Even the simplest masjids have a mihrab in the middle of the qibla wall – a semicircular or polygonal niche that marks the prayer direction. The mihrab recess ends with a conical and sometimes decorated vault framed by a protruding portal. In modest mosques, the mihrab is often the only embellished part of the interior.

In mosques (*cami*) with the Friday sermon (*hutbe*) delivered regularly, there is a pulpit (*minbar*) standing in the right corner. Some smaller mahalle mosques, commonly called masjids in Bosnia and Herzegovina, do not have a minbar. The minbar comprises a flight of steps leading to a smaller canopy-like platform. It is usually wooden, painted, and sometimes carved, while handsomely carved stone pulpits are typical in domed mosques. Another piece of the interior is the *kursi*. It is a framed and raised seat used on festive occasions, standing always on the left or left front corner. The entrance is usually in the middle of the back wall, thus emphasizing the axis that extends through the center of the prayer space (*orta yeri*) and ends in the mihrab.

In most examples, there is a balcony (*mahfil*) standing on pillars along the back (entrance) wall. It serves as an added prayer platform used by women, except for Friday prayer. There is also a spot where the muezzin supports the imam during the common prayer. To get to the mahfil, there are steep stairs, typically on the right side. The walls of the richer mosques are painted with arabesques and calligraphy, while in modest ones they are simply whitewashed. Many mosques have a covered porch in front of the entrance. On either side are slightly raised carpeted sofas serving as a summer extension of the prayer space: a spot for latecomers, or when the interior is closed (*son cemaat yeri*). Between the sofas in front of the entrance is a spot where visitors take off their shoes and leave them in shoe racks (Bos. *papučluk*).

A single minaret preferably stands at the right, closer to the west corner. If placed on the left, then it was done for justified reasons. The masonry minaret rises from the massive pedestal (Bos. *ćup*) that extends to the foundation deep in the ground. It narrows upwards and reduces to a narrow polygonal tower in which there are spiral stairs. There is a single balcony (*šerefe*) close to the top from which the muezzin calls to prayer. Above the gallery is a slightly narrower and tapering shaft (Bos. *kaca*) with a small arched door. The minaret ends with a pointed conical roof that was covered with lead and in Herzegovina with stone. At the top of the pointed roof is a metal spear with two or three metal bulbs (Bos. *jabuka*, apples). This form also has its origins in the early Seljuk mosques and as such developed over the centuries of Ottoman architecture and became a recognizable symbol of Anatolian tradition [17].

As in Anatolia, two characteristic mosque forms are recognized in the Balkan provinces of the Ottoman Empire: domed type and roofed type (Figure 1). Bosnia and Herzegovina is certainly no exception, with the roofed type

being much more numerous [4]. These two basic types have been developed in a variety of ways and will be described further below. Like other parts of the empire, the shapes, materials, and structures depended greatly on the prevailing regional circumstances. As a result, in Bosnia and Herzegovina, distinctions can be seen in areas where stone, adobe, or wood are the predominant building materials. This is especially recognizable in the walls, minarets, roofs, and roofing material. While domed mosques were mainly constructed of ashlar masonry, those with sloping roofs were also built of mud bricks (Bos. *ćerpič, kerpič*), timber, and miscellaneous types of stone masonry.

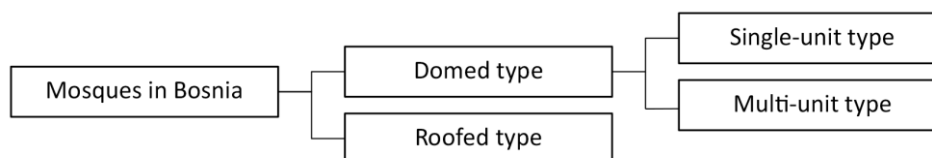


Figure 1. Basic classification of mosques in Bosnia and Herzegovina

3.1. Domed type

According to Bejtić [6], there were 38 domed mosques in Bosnia and Herzegovina during the Austro-Hungarian domination (1878–1918). Statistics data from 1933 shows 36 [4]. Most domed mosques follow a uniform pattern except for two, or three, respectively, which have a more complex spatial concept (Figure 4). So, in addition to the predominant single-unit type, only three mosques are classified into multi-unit types. They are most often built of two types of stone masonry: ashlar masonry and rubble masonry, which is usually plastered on each side.

3.1.1. Single-unit type

The typical interior is square in a plan measuring from 7 m to 13 m. Its cubic form transforms into the circular base of the dome using an octagonal or dodecagonal drum, sometimes pierced with narrow arched windows. The transition zone between the square to a polygonal shape comprises squinches, sometimes decorated with *muqarnas*. The walls have four to five arched windows on two or three levels on each side. Typical elements, such as the mihrab, minbar, the entrance portal, or capitals on the porch columns are sometimes decorated with shallow carved relief. In several reputable examples, the interior is decorated with paintings. The portico vaulting system with three smaller cupolas rests on four granite columns joined with ogee or slightly pointed arches. The minaret with a single balcony (*şerefe*) may seem slender compared to other regions and provinces. The domes were originally covered with lead sheet metal, which was replaced by copper sheets in several cases during World War I.

A very handsome example of this type Aladža (*Alaca*) Mosque in Foča (1551), which originally had splendid wall paintings [5] [24] (Figure 4, c). In addition to this one, the most beautifully proportioned examples in Bosnia and Herzegovina are Karađoz (Karagöz) Bey Mosque in Mostar (1557), Jusuf Pasha Mosque in Maglaj (1560), Ali Pasha Mosque in Sarajevo (1561) (Figure 14), Ferhad Pasha Mosque in Sarajevo (1562), Hadži Alija Mosque in Počitelj (1563) (Figure 11), Sinan Bey Mosque in Čajniće (1582), and Koski Mehmed Pasha Mosque in Mostar (1618) (Figure 13) [20] [11] [12]. A certain deviation from the archetypal model, most likely caused by the climate, can be found in the west Herzegovinian town of Livno, where the mosques have a more robust appearance, with lower domes and minarets, and characteristic enclosed sides of the portico. Those are Balaguša Mosque (1550) (Figure 10), Hadži Ahmed Dukatar Mosque (Glavica) (1574), and Lala Pasha Mosque (1578). All these mosques with their dependencies were endowed by the governors of local origin [1].

3.1.2. Complex single-unit type

Unlike a single-unit type, a complex single-unit type of mosque exhibits more elaborated massing. There are two exceptional monuments with extensions on three sides: Husrev Bey Mosque in Sarajevo (1531), and Ferhad Bey Mosque in Banja Luka (1579). The largest mosque in Bosnia and Herzegovina is founded by Bosnian

Sancakbey Ghazi Husrev Bey (1521–1541) [26]. Following the example of many similar mosques of the late 15th century, it has a central space extended on three sides thus forming the “T” shape. The central square space is surmounted by the shallow, 13 meters large, and 26 meters high dome, supported on stalactite pendentives. Externally, the central space rises in the cubic form crowned with the drum pierced by narrow windows and reinforced with plain pilasters and eight flying buttresses. The rectangular mihrab area is extended in the qibla direction and vaulted by the semi-dome, using pendentives. On either side are smaller domed square rooms, resembling ancient *tabhane* rooms. The five-domed portico is enclosed by walls at both ends, so there are four marble columns, joined by five slightly pointed arches. The minaret is attached to the northwest corner.

Husrev Bey Mosque belongs to the very end of the Early Ottoman style. Such a concept has its roots in the zaviye type in Bursa and reaches its final form in several medium-sized mosques in Istanbul in the late 15th century [17]. It largely resembles the concept of the Atik Ali Pasha Mosque in the Fatih district (1497) (Figure 4 a). Husrev Bey Mosque is attributed to royal architect Acem Esir Ali (–1539), while the masonry was done by stonemasons brought from Dubrovnik [26]. In the courtyard, next to the mosque, stands the mausoleum of its founder, designed in classical form as an octagonal domed unit. In addition to these buildings, Husrev Bey’s *kulliye* in Sarajevo had a madrasa, hammam, two hans, and bedesten [6].

The later valuable Bosnian monument is the Ferhad Bey Mosque in Banja Luka, founded by the Bosnian Sancakbey Ferhad Beg Sokolovic (1574–1580) [7] [15]. At the time of the foundation, in addition to the mosque, his endowment had a madrasa, mekteb, hammam, bedesten, caravanserai, clock tower, and cemetery [7]. This mosque is also based on an inverted T plan with the lofty prayer hall flanked by shallow lateral extensions and mihrab *eyvan* covered by a semi-dome. The main dome itself is not as big as the Husrev Bey's is, but the height is two and a half times larger than its span. Such a small dome of just 6,58 m has a drum pierced with twelve windows (Figure 4 b). In addition to these, having multiple windows, the architect achieved an impressive and bright interior. There is a triple-dome portico on the northwest side, having four columns, two of them with stalactite capitals and two with baklava capitals. The 41-meter-tall minaret with a single *şarafa* stands attached to the northwestern corner.

The third example is a double-unit type which has a specific combination of a mosque and a mausoleum (*türbe*). The Arnaudija or Defterdarija Mosque in Banja Luka, completed in 1595 shows a classic solution with a domed square room preceded by a triple-bay portico [7]. However, since the octagonal mausoleum of the founder is firmly embedded on the right side and can be entered from the mosque itself, this unique burial mosque can be classified as a multi-unit type. This building belongs to the classical Ottoman expression, like Ferhadija. The main dome with an octagonal drum is supported at the corners by squinches. The porch has four stone pillars connected by pointed arches. Interestingly, the middle dome of the porch is slightly larger than the side ones. The slender minaret is in the right front corner between the mosque and the mausoleum to emphasize the harmonious composition of the mosque with the mausoleum.

3.2. Roofed type

In addition to the domed type, there were much more mosques with sloping timber roofs built in Bosnia and Herzegovina [4]. According to the basic concept, a roofed type mosque does not differ significantly from the domed one. These buildings are mostly built as a single-unit type, particularly during the 15th and 16th centuries, while a smaller number of roofed mosques belong to a single-unit mosque with an articulated interior. They are typically built as a square or slightly elongated rectangular plan. As a rule, they have a porch in front of the entrance which serves as an extension of the prayer area. Like domed ones, the walls of roofed mosques are pierced with double-level windows, regularly four on each side. They are rectangular or arched, typically in a combination in which the lower ones are rectangular and the upper ones are arched and slightly smaller.

Mosques with sloping roofs are notably regionally diverse. The roof form, pitch, and roofing material are closely related to a local tradition. Roofs covered with stone prevail in Herzegovina. Curved clay tiles were typical in the Sarajevo region and East Bosnia, while wood shakes prevailed in the central and northern parts of Bosnia. Some roofs were originally covered with lead, which was later replaced by tiles. Roofs in the north of Bosnia

have steeper pitches and deeper eaves. However, in central and southern areas, roofs are lower with shorter eaves or without eaves. The pitched roofs mainly have a hipped but also a pyramid (pavilion) form (Figure 2). Roof mosques also differ greatly in terms of material and minaret shape. Except for masonry minarets like those found in domed mosques, most roofed mosques were built with shorter wooden minarets protruding from the southwest roof plane. The analysis includes about fifty roofed mosques of which a few no longer exists.

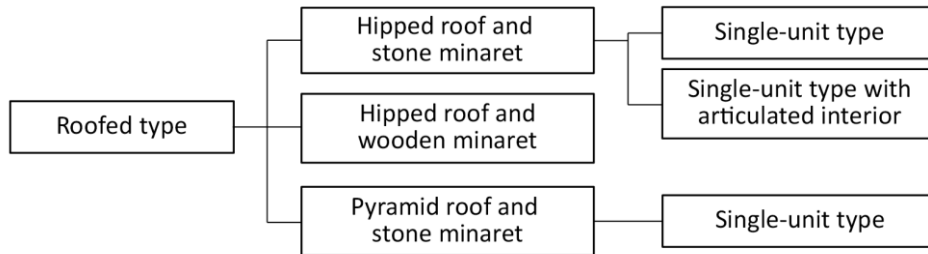


Figure 2. Classification of roofed mosque types

3.2.1. Hipped roof mosques with a stone minaret

Except for the roof form, hipped roof mosques with a stone minaret generally correspond to the single-unit domed mosques. Besides these, a few examples have an articulated interior. Most single-unit type mosques have equally square or rectangular prayer spaces preceded by an open porch (Figure 5). The breadth size of the interior space is usually limited by the structural span of the ceiling and roof and ranges from 8 m to 12 m. This mosque form is recognized by a hipped roof that covers the prayer room and the porch (Figure 15). There are typically six to ten wooden pillars, most often symmetrically arranged. They support the front part of the roof above the porch. Besides timber ones, although less common, there are cases of porches with pillars made of stone masonry. The minarets of the roofed mosques are like those in the domed ones, although they may differ in proportion and details. There is usually a wooden mahfil along the northwest wall, although there have been instances where alternative solutions, such as a corner mahfil, or mahfil along two or even three sides, have been built. The mihrab is shaped as a polygonal or circular niche framed by a rectangular portal that projects slightly from the wall's plane. The level of decoration varies; most mosques have polychrome decorations, while the wealthier ones include stone carvings. The minbar is typically made of ornamented wood, though cut and carved stone had been used less often. The hipped-roof mosques with a stone minaret were built throughout the Ottoman period and across most of Bosnia and Herzegovina. If analyze the statistical data from 1933, we can see that more than 200 mosques with sloping roofs and stone minarets were recorded at that time [4]. Characteristics of several selected examples are analyzed here.

The oldest known mosque in Bosnia and Herzegovina, the mosque in Ustikolina (1463–66), was a typical example of the hipped roof type with a masonry minaret (Figure 5, a) [19]. It had a large, nearly square prayer room that measures approximately 12×12 meters inside, with the mahfil supported by six wooden pillars. The stone walls were adorned with sixteen arched windows, with the lower ones being slightly larger. A four-meter-deep mahfil stood in front of the entryway. On the porch, ten wooden pillars supported the roof, which was originally covered with lead. Clay tiles were later used to replace the lead. A slender stone minaret stood at the mosque's southwest corner.

Like the mosque in Ustikolina, many examples of the same type have been built in various places throughout Bosnia and Herzegovina. Thus, in Foča, near Ustikolina, a couple of mosques of authentic design were built, among which the Atik Ali Pasha Mosque (1546) and the Mustafa Pasha Mosque (1554) are particularly noteworthy [2] [5]. Both are nearly square in floor plan with spacious, square sofas on the porch (Figure 5, b, c). A unique feature of the Foča tradition is a short mahfil situated in the western corner, below which is the entrance to the spiral staircase of the minaret.

There are several mosques in Sarajevo with a hipped roof and a stone minaret, which are functional today. Although many have been restored and refurbished on several occasions, they have largely retained their original form. Unlike those in Foča, which are built of stone, Sarajevo mosques are more often built of sun-

dried mud bricks (*čerpič*). They also differ from those in Foča by the mahfil shape, which runs along the entrance wall and commonly includes a dedicated place for the *muezzin*. This indicates that builders followed local traditions in creating individual parts or setting proportions. The floor plans of Sarajevo's roofed mosques are found as approximately square, as in Vekil Harč Mosque (1541–1561), Kara Ferhat Mosque (1557), Kadi Hasan Mosque (1560), or Kekeki Sinan Mosque (1515) (Figure 17), while the Gazi Mehmed Beg Mosque (1519), Yahya Pasha Mosque (1528), and Magribiya Mosque (1766) are typical examples of a slightly elongated floor plan [2] [4] [20]. A specific case is the White (Ak), also Katip Haydar Mosque, which has a porch with two levels and with protruding sides of the gallery above. The minarets of Sarajevo mosques are of uniform design and proportion, without expressive decoration. Most are characterized by the rectangular shape of the minaret pedestal. A similar concept can be traced elsewhere. The White (Ak) Mosque in Gornja Tuzla has an approximately square prayer room of 8.7 m and a 4.7 m deep wooden porch. However, its exceptionally high minaret with a protruding polygonal pedestal and steep roof surfaces set it apart from typical Sarajevo mosques. The Musa Pasha Mosque in Nova (Yeni) Kasaba, which was recently renovated, has a similar layout, but with a considerably larger prayer room measuring 11.35 m internally.

Regional tradition and specific circumstances had different impacts on the architecture of the roofed mosques in some areas of Bosnia and Herzegovina. There are a few examples showing a certain deviation from the typical solution. Those are found in a more articulated interior (Figure 6). As mentioned earlier, mosques with a hipped roof often have a slightly elongated prayer hall in the direction of the qibla. However, the rectangular shape with an accentuated breadth is less common. An exceptional example is the Careva (Imperial, Sultan Selim Yavuz) Mosque in Stolac (1519) with a wide prayer area [9]. There are ten wooden pillars inside arranged in two rows and supporting the balcony (mahfil) and ceiling which is reminiscent of Anatolian columnar mosques from the 13th century. A typical portico with spacious sofas closed at ends stands in front of the entrance. A peculiar feature of this mosque is a hip roof with a front plane extended above the portico and supported by a row of eight wooden pillars (Figure 6, a).

Two mosques with 19th-century articulated interiors can be found in the vizier's town of Travnik. Sulejman Pasha's Mosque was built in 1816 on the foundation of an older mosque that burned down in a fire the year before. Its main differences from many single-unit mosques are its size and internal architecture. The rectangular-shaped prayer hall measures 16.5 meters long and 14.2 meters wide. Except for the qibla wall, its middle portion, which is 8.8 m wide and 13 m long, is surrounded on three sides by twelve wooden pillars (Figure 6, c). At the same time, pillars expand and support the flat ceiling while upholding the balcony on three sides. Two staircases leading to the balconies are located in an asymmetrically shaped closed vestibule on the northwest side that is almost 20 m long and roughly 3.2 m deep. The earlier design may have been the reason why the mihrab does not face the same direction as the outer and inner entrance portals. There is no porch at the entrance. Just two stair flights lead to the entrance gate. From the original structure, just the minaret is still standing and is situated along the northeast wall. A row of twelve pillars and solid stone walls support the hipped roof. Sulejmanija, which has a bedesten on the ground floor, is a unique specimen, similar to Ali Pasha Rizvanbegović Mosque in Stolac (1812). The Sulejmanija Mosque is sometimes referred to as the Colorful Mosque because it has painted ornamentation on its plastered exterior, just like the Careva Mosque in Stolac.

A very similar spatial conception characterizes Ali Beg's Mosque in Travnik. Like Sulejmanija, it was built in 1865 on the remains of an earlier mosque. It contains a 16.5 m long and 13.7 m broad prayer space, and twelve wooden pillars divide the mosque's interior according to the tripartite concept. In the middle is a core space approximately 12 m by 8.4 m and about 6.2 m high, enclosed on three sides by balconies (mahfil) of 2.6 m and 4.5 m wide (Figure 6, d). The arrangement, number, and shape of the windows in the massive stone walls are also similar to Sulejmanija. The position of the minaret on the northwest side, to the right of the main entrance, is uncommon because it does not line up with the axis of the mihrab. This building features a second entrance on the southwest corner. This mosque also does not have a classic porch with sofas, but a narrow vestibule that seems to have been added during the Austro-Hungarian period, which can be seen by the shape of the arches from the Arab tradition.

Although Ferhad Bey's mosque in Tešanj looks like a typical single-unit type with a hipped roof, its interior design deviates from standard solutions. The original building was built in the second half of the 16th century, and the present form dates from 1786, so it is not certain whether it reflects the original state. The interior of the prayer hall occupies a rectangular shape with a total length of about 13 m and a width of 9 m, which results in a greater ratio of length to width compared to most mosques with a rectangular floor plan. The space of the mosque is articulated with interior domes and divided into two parts (Figure 6, b). The front part is square and covered with a shallow dome, all formed under the roof structure. The rear part is separated by four wooden pillars so it looks like a tripartite vestibule measuring 9 m × 4 m, above which there is a balcony (mahfil) with three small cupolas, also made as part of the roof structure. Two pillars support both the mahfil and the ceiling. All domes are made of wood and plastered, and it is quite likely that they have been previously decorated. Although it is a relatively light wooden structure, it is interesting that this is probably the only dome that sits on internal columns on one side. Although there is no exterior articulation of the domes, the plan concept of this mosque is reminiscent of the rare early Ottoman form (Yesil mosque in Iznik, 1391) [17].

Unlike most minarets with a polygonal cross-section and harmonious proportions, we come across several examples that differ from the most. Compared to the prevailing design, there are relatively low and often chunky, but still finely shaped minarets in eastern Herzegovina [9]. Such examples were specifically characteristic of Trebinje and its surroundings. The mosque in Donje Čičevo probably had the lowest minaret in Herzegovina (before 1770). It was less than 10 meters high from the ground to the stone alem. The Sultan Ahmed (*Atik*) mosque in Trebinje (1703–1730) has a minaret just two meters higher. Similar examples are in the mosques in Župa, Pridvorci, and Korjenčići, near Trebinje [9] [20]. Another minaret form characteristic of Herzegovina shows the influence of coastal masons and the Mediterranean building tradition in general. A low square minaret with a pyramidal roof resembling simple church towers has some smaller, especially rural mosques of southern and eastern Herzegovina. Square minarets can be traced in the vicinity of Mostar, while many existed around Bileća, Gacko, and Nevesinje [9]. A typical autochthonous example is the Sefer-aga Mosque in Dabrica (1611), between Stolac and Čapljina.

3.2.2. Pyramid roof mosques with stone minaret

In addition to hipped-roof mosques, several buildings reveal a mixed roof form. These mosques typically have a prayer space of equal width and length, together with a wooden porch measuring the same width. The prayer area is enclosed by stone walls and is usually lit by 14 window openings, four on each side, except for the entrance side, which has only two. A wooden pyramidal roof sits on top of the stone walls, which in Bosnia were mostly covered with lead or shingles, and in Herzegovina with stone tiles (Figure 16). The wooden portico resembles the hipped-roof mosques. It is defined by six to ten wooden pillars that support the roof canopy in three planes. Such two separated roof forms exhibit a harmonious mutual relationship in terms of the level position and slope of the roof planes. Although these mosques are not as numerous as those with hipped roofs, they are remarkable for their consistency in design and expression (Figure 7).

This roofed sub-type was constructed from the very beginning of Ottoman rule in Bosnia and Herzegovina, as evidenced by several noteworthy instances. Sancak Bey of Herzegovina Sinan (1474–75), constructed the first mosque in Mostar in 1474 [11] [12]. It was dismantled in 1949 and stood about 300 meters away from the old bridge. It was a spacious building built of cut stone and covered with stone tiles. It had a fairly high minaret with a rectangular base. Another one is the Sultan Bajazid Veli Mosque, located in Nevesinje, which is thought to have been built between 1481 and 1512. Similar to Sinan Pasha in Mostar, the Careva (Emperor's) Mosque has undergone numerous renovations [20]. It was completely demolished in 1992 and restored to its previous appearance in 2016. It was a mosque with fine craftsmanship, constructed of stone, originally covered in lead, and now covered in clay tiles, just as it was before it was demolished. The square prayer hall is about 11.5 m and is surmounted by an inner wooden dome and a pyramidal roof on the outside (Figure 7, a). The porch, measuring 13 m × 6 m and composed of two stone sofas, is covered with a flat wooden ceiling and a canopy with three planes that sit on ten wooden oak pillars.

The mosques with a pyramidal roof and a wooden portico are typical in Mostar [12]. Several handsome examples were built during the 16th and 17th centuries, including the Nezir Aga Mosque (16th century) (Figure 7, b; Figure 18), the Dervish Pasha Bajezidagić Mosque (1591), the Sevri Hadži Hasan Mosque (before 1620), the Roznamedži Ibrahim Efendi Mosque (before 1620), the Ibrahim Aga Šarić Mosque (1624), and Ahmed Aga Lakišić Mosque (1650). They are all built of high-quality limestone (*miljevina*) and covered with stone tiles (Bos. *ploča*). There are 10 to 16 windows on the stone walls, typically four on each side except the entrance side, where two face the sofas. Most often, the lower windows are rectangular, while the upper ones are arched and have regularly carved pointed arched frames, typical of the classic Ottoman style. In front of the entrance is a porch with sofas covered by a canopy roof that sits on wooden posts. The minarets of Mostar mosques are harmoniously shaped; they have a polygonal body that stands on a square or polygonal base. The pointed roof finish is also made of stone. Stalactite decorations (*muqarnas*), for example, can be found beneath the balconies (*šerefe*) of the Šarića Mosque and the Roznamedži Ibrahim Efendi Mosque.

However, this type of mosque is less common in Bosnia. Surprisingly, a similar concept was applied in the construction of the Turali Bey Mosque in Tuzla (1572). We are aware of its earlier appearance thanks to a drawing from the very beginning of the 20th century [16]. The interior prayer area is square in plan with stone walls pierced with 14 windows, with the upper ones arched. The illustration clearly shows that the mosque had a steep pyramidal roof that was originally covered with wood or lead, and later with clay tiles. A tall stone minaret with no adornment is leaning against the west corner. A porch with ten wooden pillars connected by wooden arches stood in front of the entrance. There was a canopy roof with three planes above the porch with sofas until the middle of the 20th century (Figure 7, c). This mosque was renovated in 2012.

Roofed mosques typically have a flat ceiling lined with profiled boards (Bos. *šiše*), sometimes decorated with carved geometric motifs. However, there are several examples with a domical vault formed within the roof structure, particularly in mosques with a square prayer room. Such domes are found in the Lakišića Mosque, Šarića Mosque, and Tabačica Mosque in Mostar (16 & 17th century) (Figure 19), the Handanija Mosque in Prusac (1617), the Turali Bey Mosque in Tuzla (1572) (Figure 7, c), and the Gazanferija Mosque in Banja Luka (late 16th century). A rare example of the wooden barrel vault integrated within the hipped roof can be found in Magribija Mosque in Sarajevo (1766) [14].

3.3. Hipped roof mosques with wooden minaret

Muslim Architecture in Bosnia and Herzegovina is mostly valued for its monumental buildings. However, many urban and rural areas consisted of residential houses and other modest structures built without skilled architects. If one goes through the residential quarters (*mahalle*) of Bosnian towns and villages, one can still see smaller mosques and masjids that served the closest population. Compared to large city mosques, these small and harmonious buildings are unpretentious in shape and proportions while showing authenticity and environmental harmony. While major mosques distinguish by their dimensions, decorations, or tall minarets, the small neighborhood mosques stand with a serene wooden porch beneath a hipped roof with a characteristic wooden minaret.

There have been many more of these, unique Bosnian, mosques in the past. According to statistics from 1933 [4], the number of mosques with wooden minarets (70%) significantly exceeded mosques with stone minarets (23%), including domed ones. There were more in Bosnia (770) than in Herzegovina (16), so one can conclude that they are characteristic of Bosnia. Mosques with wooden minarets were built continuously throughout Ottoman rule in Bosnia and Herzegovina. We can assume that the earliest mosques used to have a wooden minaret, which was probably replaced with a stone one during some of the later repairs. According to Handžić [8], the Ottomans built small mosques for the garrison soon after conquering the fortified towns. They were constructed with state funds and existed in Zvornik, Srebrenica, Teočak, Sokol, and Srebrenik. The only surviving is a small mosque in Kušlat, a medieval fortress south of Zvornik. It still stands today on a high cliff from the top of which there is a view towards the valley of the two rivers. Almost square in plan, this modest and authentic mosque has a steep roof covered with a wooden shingle, from which a wooden minaret with a closed gallery appears. The shape and proportions of the mosque unequivocally show the construction tradition in this area during the 15th century.

Apart from those who served the garrisons, the founders of modest mosques with wooden minarets were most often wealthy individuals of minor importance, some merchants, artisans, *khojas*, or *shaykhs* [4]. As in the case of other significant buildings, they were the subject of endowments. The institution of endowment enabled maintenance and repairs. However, the sources of income in some cases could drop, such as the changed political and economic circumstances, especially during the Kingdom, and then followed by socialist Yugoslavia. It was one of the reasons for the modest maintenance of modest buildings, especially those built of earthen material and wood.

The construction of modest neighborhood mosques was based on materials available in places, such as wood, clay, stone, and rubble. The roof construction with ceiling structure and minaret were all constructed of roughly hewn timber. Windows, doors, and other visible elements were made of fine and occasionally decorated timber. The traditional roofing material in Bosnia was shingle with a groove cut along a single side (Bos. *šindra*). It was made by splitting a log of fine structure. Earthen material was commonly used as mud brick (*čerpič*), as well as mud plaster. To increase proper strength and durability, a chopped straw was usually mixed with earth and water. Instead of mud, a plaster with quicklime plaster was used whenever it was available. After they dried out, the plastered walls were whitewashed. Roughly cut stone or rubble were used to construct walls and especially foundations.

Unlike monumental buildings built by experienced masters, small neighborhood mosques were mainly constructed by local people – *dunderi* (*dülger*, carpenter) [15]. These domestic builders were primarily trained in carpentry, although capable of other crafts. Many were able to set up the plans, dimensions, and proportions of houses, mosques, and other less representative buildings [6]. They learned the basic features of Islamic architecture by working with more experienced Ottoman masters. Over time, they set up their canons of construction, which resulted in simple and harmoniously proportioned forms that are characteristic of Bosnia. Given the prevalence of mosques with wooden minarets in Bosnia, regional diversity is more recognizable. Bearing in mind the availability of materials and local tradition, one can notice the difference in the wall and the roofing material. In a wide area of central Bosnia that was rich in forests, one can still meet mosques entirely built from timber. Massive stone walls are common in places with an abundance of stone. In northern Bosnia and Posavina, mud-brick walls were common. However, the earthen material was also in use all over central Bosnia. The massive walls made of stone and mud-brick were 60 cm to 90 cm thick and strengthened with horizontal oak beams (*hatule*). In addition to these materials, there are examples of walls made of a wooden frame and wattle and daub. Later, instead of wood shingle, curved tiles (Bos. *čeremit*) prevailed, especially in regions of Sarajevo and Foča, and clay tiles in Tuzla and Gradačac.

In addition to the material used, mosques with wooden minarets differ in floor plan, the entry unit, as well as the shape of the minaret (Figure 8). In central and eastern Bosnia, which represents the area that stretches from the Drina River in the east to Jajce and Banja Luka in the west, mosques with an open wooden porch and a minaret with a closed gallery are typical. They are smaller and have a slightly elongated prayer space, on average 40 m² to 60 m². On the other hand, in Western Bosnia, from Banja Luka and Jajce to Bihać and Cazin, we find on average larger mosques often with an oblong floor plan and, as in many cases, a closed vestibule, probably inspired by Fethija (*Fethiye*) Mosque, a former Gothic church in Bihać. It is also worth mentioning that the minarets are higher with an open gallery resembling those made of stone [4].

After examining numerous examples, it is appropriate to develop the subdivision of mosques with a wooden minaret based on the presence, type, and form of the entry unit. Typical forms have single-story and double-story porches, although designs with an enclosed vestibule or with no entry unit were present (Figure 3).

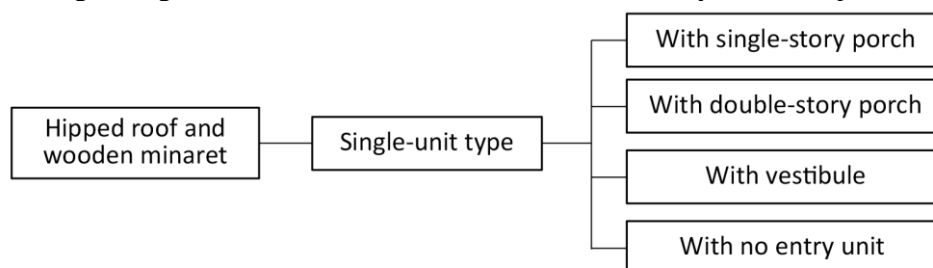


Figure 3. Classification of roofed subtype with wooden minaret

The mosque with a wooden minaret and a single-story porch is the basic type, which corresponds to the hipped-roof type with a stone minaret. It has a porch with sofas, which is, depending on size, typically flanked by six to ten posts that support the roof (Figure 21). This type is common in the central and east of Bosnia. Most of

Sarajevo's neighborhood (mahalle) mosques dating back to the 15th and 16th centuries belong to this type [14], but they are also found in Banja Luka, Tešanj, Tuzla, Jajce, Srebrenica, and many more places [6] [20]. The most illustrative examples are Bali Bey Malkoč (*Malkoç*) Mosque in Sarajevo (1476) (Figure 22), Terzibaša (*Terzi baša*) Aga Masjid in Sarajevo (1524) (Figure 8, b; Figure 26), Atik Mosque in Fojnica (1551), Ašik Memi Mosque in Sarajevo (1551), Osman Ćehaja (*Kehaya*) Mosque in Tuzla (before 1600), Abdullah Pasha Mosque in Tešanj (17th) (Figure 8).

As there was a need to enlarge the prayer space, a wooden porch was also constructed in two stories. The upper story functions as an exterior balcony (*mahfil*), which can be opened on all sides or walled up as a rare circumstance. It is accessed by steep stairs directly from the sofa, or through the inner mahfil. The timber construction of the exterior balcony is more complex than in the previous type, which can be taken as one of the reasons for the slightly lower number of surviving examples. This type is also found in central and eastern Bosnia, like the previous one. Among the oldest examples of a mosque with a wooden minaret is the old (*Feth*) mosque in Kraljeva Sutjeska, which is believed to have been built by the order of Sultan Mehmet Fatih himself after the conquest of Bosnia (15th). It is a modest but elegant building made of mud-brick and wood. The interior is rectangular, 8 m deep, and 6.5 m wide. In the walls about 75 cm thick, there are rectangular windows in two rows, four on each side, except the entry wall (Figure 8, g). A two-story porch with steps in the right corner is located on the northwest side. Its unusual feature is the position of the wooden minaret at the very end of the ridge. The mosque underwent numerous renovations, changing its appearance along the way due to the deterioration of worn-out materials. It was given a far more acceptable appearance following the most recent intervention.

Only three mosques having galleries above the porch are known to have more intricately designed galleries. In Sarajevo, just the Tabak Hadži Sulejman Mosque had a gallery protruding to the front [14] [4]. This is known only from the drawings of Josip Pospišil (1867–1918) [4], while the current appearance is the result of one of the last reconstructions in which the mosque lost its original appearance. The situation is similar with the two mosques in Tuzla, with their galleries projecting on three sides [4]. As in the case of the Tabak Hadži Sulejman Mosque, Džindijska (*Cindi*) Mosque (before 1600), and Mejdanska (*Meydan*) Mosque in Tuzla, each had lost their original appearance dating back to the beginning of the twentieth century. However, during the latest reconstructions, their original appearance has been restored in 1982 for the Džindijska, and in 2005 for the Mejdanska (Figure 23).

Mosques with no entry unit were built in exceptional circumstances, such as the shortage of space, or in the case of modification of an old building. The first reason is exemplified by two small mosques. The old mosque at Kušlat (before 1481) is situated on a very small piece of land near the apex of the cliff, where a fortified city formerly stood (Figure 24). Dizdar's Mosque in Jajce (1812) was also built near the city walls and numerous surrounding houses, so it does not have an adjoining land [20]. It is one of the unique mosques with a stone dome and a sloping wooden roof, along with Sinan Bey Mosque in Jajce. It is believed that it once had a wooden minaret. In contrast to these, the mosque in old Šturlić town (17th), with its fortified appearance, indicates that it previously had a different purpose [4].

Some mosques do not have an open porch and instead have an enclosed vestibule. The width of the vestibule is equal to the width of the mosque, while the depth is less. Usually, there are steps leading up to the top story. This type is characteristic of western Bosnia, although there are cases in other places as well. Given the individual cases of subsequent closing of porches, it is challenging to know for sure which mosques had porches at the time of erection. Such examples include Fethija (Feth) Mosque in Teočak (15th), Konatur Mosque in Travnik (17th) (Figure 25), the old mosque in Todorovo (1868), and Zavra Mosque in Livno (before 1600; renovated in 1867) [1].

4. Conclusions

Even though a mosque concept was developed in Anatolia where typological forms and aesthetic features were deeply established, regional influences throughout the Balkan provinces left their imprint, especially where local traditions were strong. Even in the small area of Bosnia and Herzegovina, there were significant influences such

as the extensive use of wood in Bosnia and stone in Herzegovina. Although a few noteworthy monuments were designed by architects from the Empire's major centers, the majority were the creations of unidentified local builders. In addition to local carpenters and masons, construction endeavors frequently involved foreign stonemasons, particularly those from Dalmatia. As a result of various influences, in addition to the classic Ottoman monuments, numerous mosques exhibit specific solutions and forms. Although mosques in Bosnia and Herzegovina did not reach the architectural prominence of the overall oeuvre of the Ottoman Empire, however, given that this peripheral province was often exposed to wars and conflicts, it could be argued that the architectural activity was extremely prolific and the artistic reach was considerable.

In consideration of the diverse range of mosques that were erected throughout the Ottoman period (1463–1878), this study creates a classification of distinct historical forms. In contrast to the existing writings on architectural heritage from the period in question, where the most important monuments are mostly discussed, this work equally valorizes the qualities of diverse mosques from the entire Ottoman period. An interpretive qualitative assessment of mosques was used to conduct this study. Although there are apparent distinctions in forms, sizes, construction, and decoration, the classification method is based on prevalent common characteristics.

The two major types of historical mosque designs in Bosnia and Herzegovina are domed and roofed. These two main types are further subdivided into several sub-concepts that, in addition to the roof's shape, also include the design of the prayer area and porch, construction, and minaret. While domed solutions are an expression of the classic Ottoman style, roofed mosques exhibit incomparably more complex solutions. Two key forms of roofs are identified: hipped and pyramidal.

Although they are present throughout Bosnia and Herzegovina, hipped roofs are characteristic of central and eastern Bosnia, while pyramidal roofs are more typical of Herzegovina. Compared to mosques with a pyramidal roof, which mostly have consistent solutions, those with a hipped roof refer to the further classification. According to the design of prayer space, numerous single-unit types differ from fewer mosques with an articulated prayer area. Furthermore, hipped-roof mosques differ according to the shape and material of the minaret. Their stone minarets do not differ from the minarets of domed mosques.

Wooden minarets mainly refer to mahalle mosques and masjids, and as such, they represent the most numerous mosques dating from the Ottoman period in Bosnia and Herzegovina. They are dominant in Bosnia due to the abundance of wood. These mostly wooden structures are a distinctive reflection of the regional architectural tradition. However, although recognizable by their characteristic wooden minarets that protrude from the southwest roof plane, these relatively small mosques are also identified by the design of the entrance unit. The basic type with a single-story porch is the equivalent of hipped-roof mosques with a stone minaret. Mosques with a two-story porch have a balcony (mahfil) above the entrance porch. In some areas of Bosnia, there are also mosques with an enclosed entrance vestibule, which often contains stairs that go up to the mahfil. Only a few small mosques and masjids still in existence have any kind of entrance unit.

According to this study, the roofed mosques in Bosnia and Herzegovina are the regional interpretation of the Turkish mosque concept, which has roots in Anatolia and dates to the 12th century. Roofed mosques are significantly more prevalent than domed mosques, which is less a result of a shortage of powerful benefactors and more a reflection of the predominating regional tradition. The restoration of historical mosques in their original forms, even though many of them were destroyed during the 1992–1995 war against Bosnia and Herzegovina, is an imperative task for institutions, restorers, and historians. In addition to the physical aspect of preservation, permanent research into the true meaning of this aspect of cultural heritage is also essential. This study could be helpful to architects actively designing new mosques in Bosnia and Herzegovina, among other things, by suggesting that contemporary solutions should be explored in the realm of regional tradition, where sloping roof patterns predominate.

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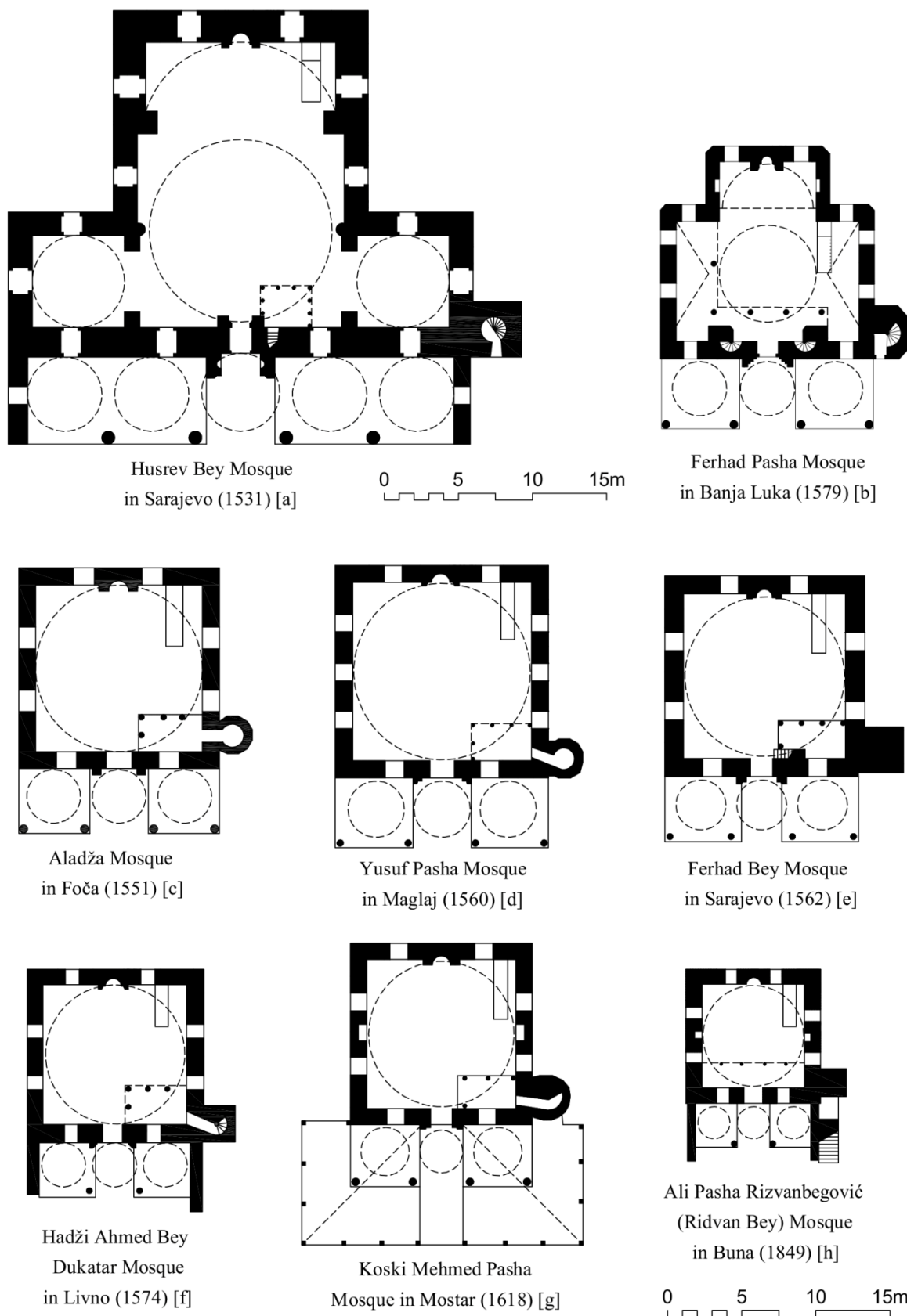


Figure 4. Examples of domed mosques in Bosnia and Herzegovina (Drawings by the author, based on drawings in Ayverdi [2])

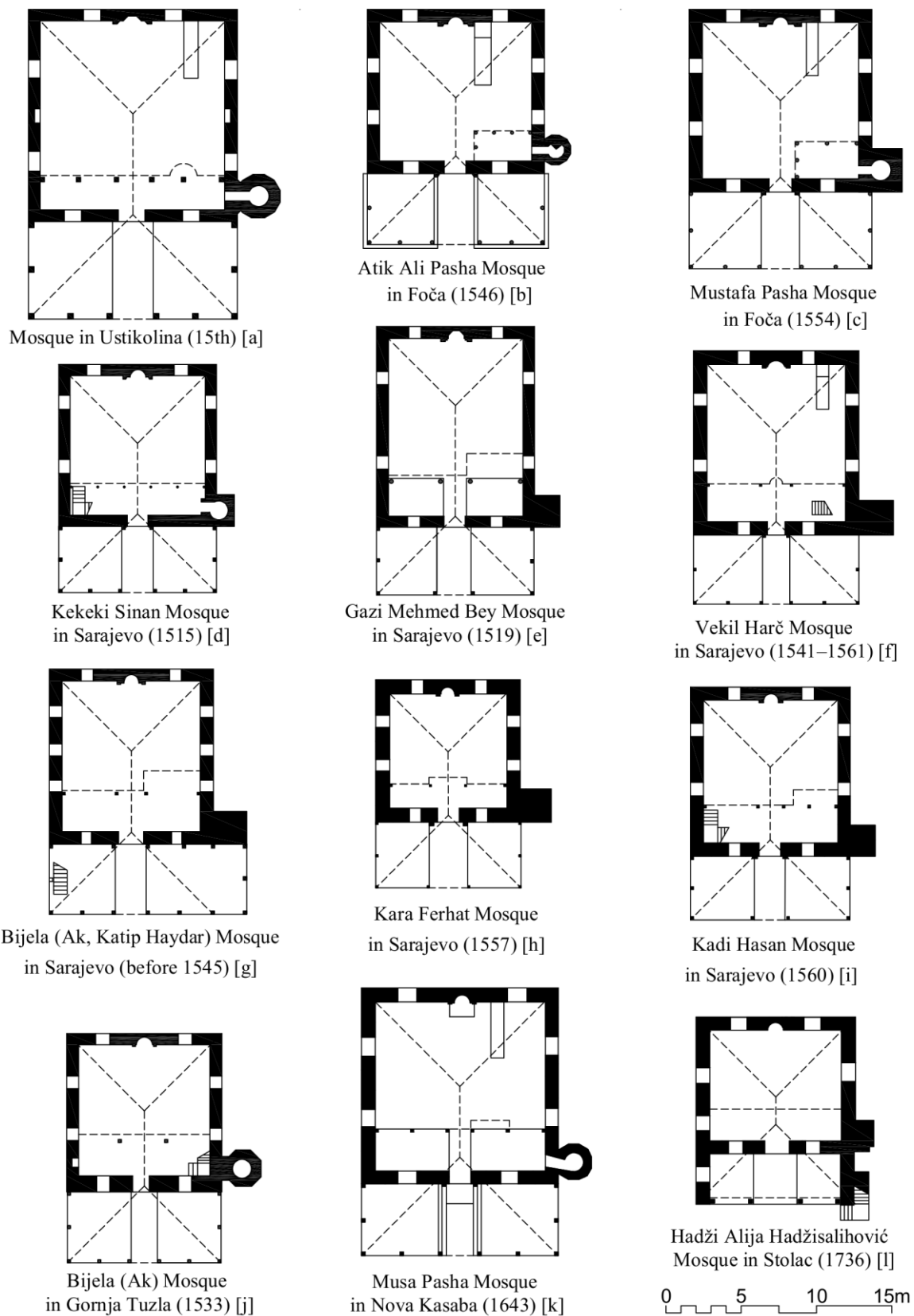
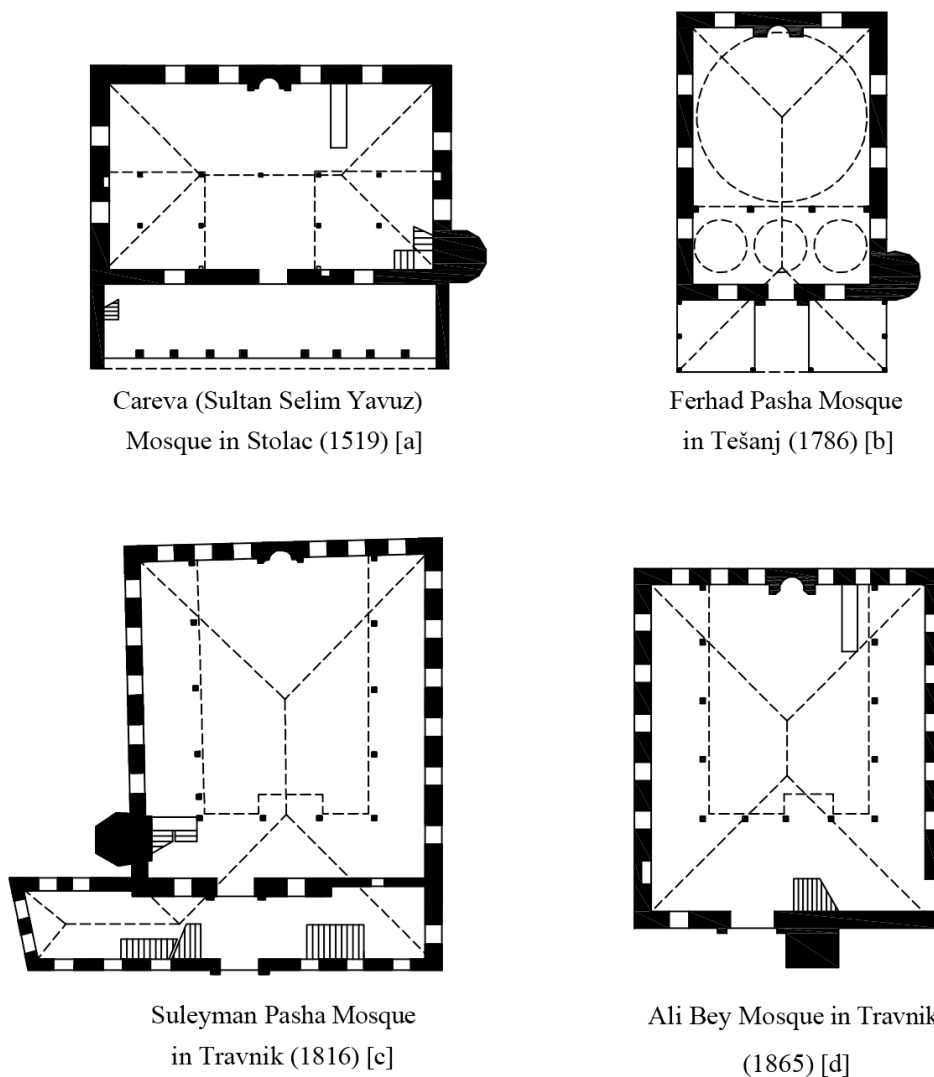


Figure 5. Characteristic examples of hipped roof mosques (Drawings by the author, based on drawings in Ayverdi [2])



0 5 10 15m

Figure 6. A few characteristic examples of hipped roof mosques with articulated interior (Drawings by the author, based on drawings in Ayverdi [2])

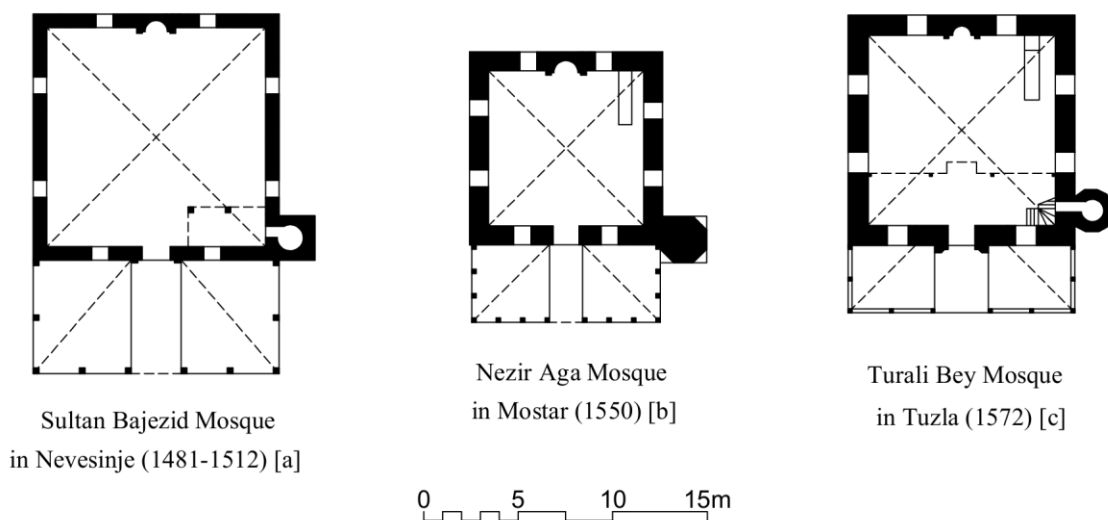


Figure 7. Typical examples of pyramid roof mosques (Drawings [a] and [b] by the author, drawing [c] based on drawings in Kreševljaković [16])

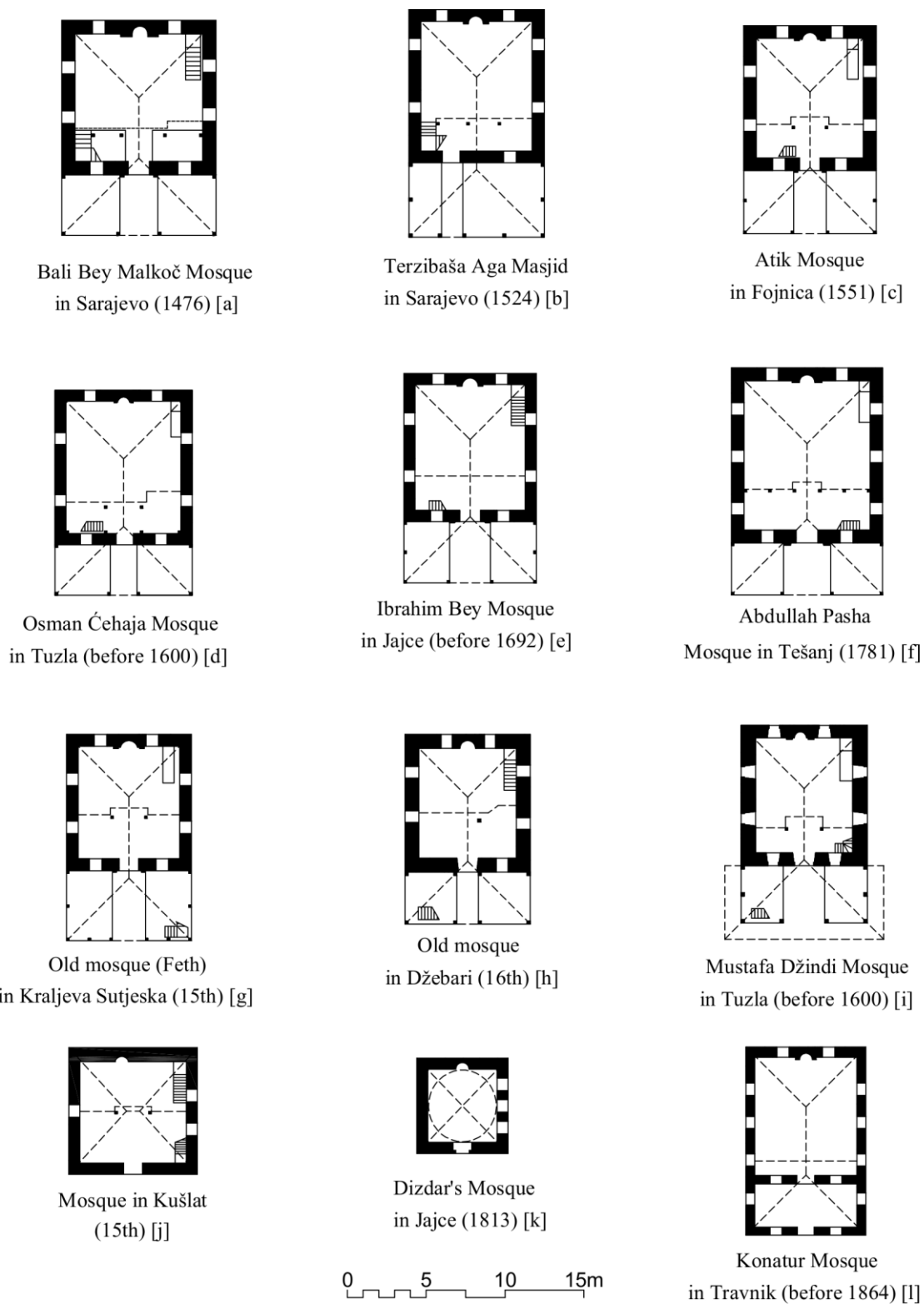


Figure 8. Characteristic examples of hipped roof mosques with wooden minaret (Drawings [a, b, e, f, j, k, l] redrawn by the author based on Bećirbegović [4]; drawings [c, d, g, h, i] by the author)



Figure 9. Havadže Durak Mosque in Sarajevo (1528)
Photo by the author

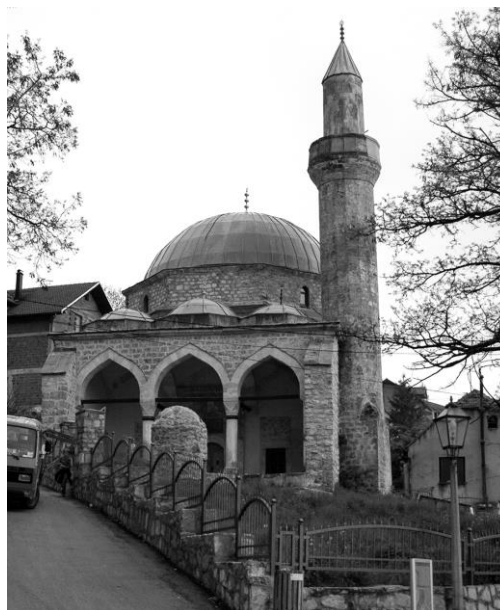


Figure 10. Balaguša Mosque in Livno (before 1550)
Photo by the author



Figure 11. Hadži Alija (Šišman Ibrahim Pasha) Mosque in Počitelj (1563)
Photo by the author

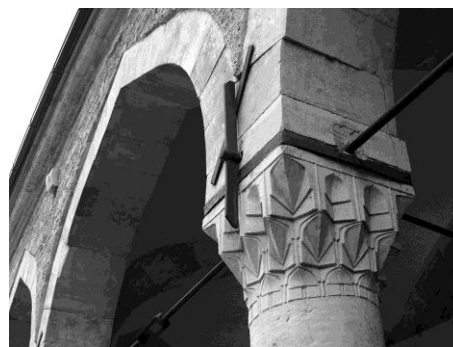


Figure 12. A view of the capital of the portico in the Hadži Ahmed Dukatar mosque in Livno (1574)
Photo by the author



Figure 13. Koski Mehmed Pasha Mosque in Mostar (1618)
Photo by the author



Figure 14. Ali Pasha Mosque in Sarajevo (1561)
Photo by the author

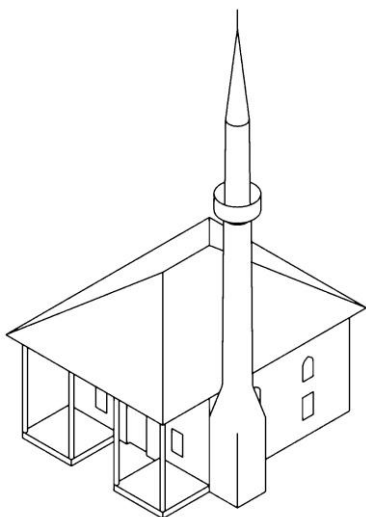


Figure 15. Model of typical hipped roof mosque
(Drawing by the author)

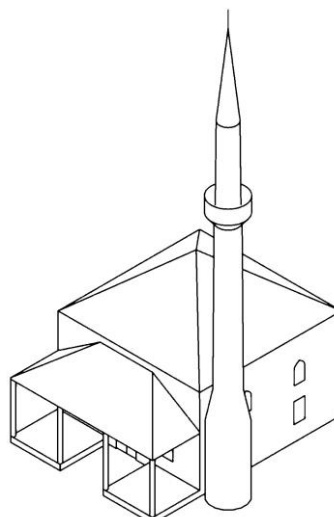


Figure 16. Model of typical pyramid roof mosque
(Drawing by the author)



Figure 17. Kekeki Sinan Mosque in Sarajevo (1515)
Photo by the author

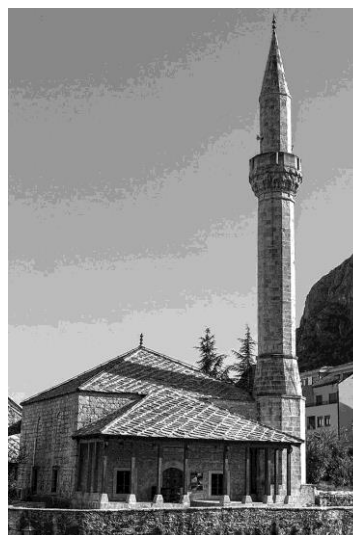


Figure 18. Nezir Aga Mosque in Mostar (1550)
Picture courtesy of Mustafa Terzić



Figure 19. Tabačica Mosque in Mostar. Interior view
of minber and wooden dome under the roof
Photo by the author



Figure 20. View of minaret with stairs in Hadži Alija
Hadžisalihović Mosque in Stolac (1736)
Picture courtesy of Mustafa Terzić

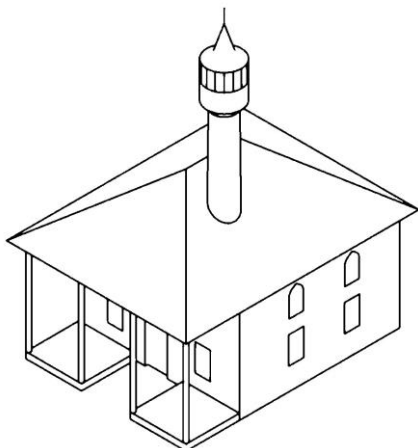


Figure 21. Model of typical roofed mosque with wooden minaret and a single story porch (Drawing by the author)



Figure 22. Bali Bey Mosque in Sarajevo (1476)
Photo by the author



Figure 23. Meydan Mosque in Tuzla (before 1600)
Photo by the author



Figure 24. Old mosque in Kušlat (15th)
Photo by the author

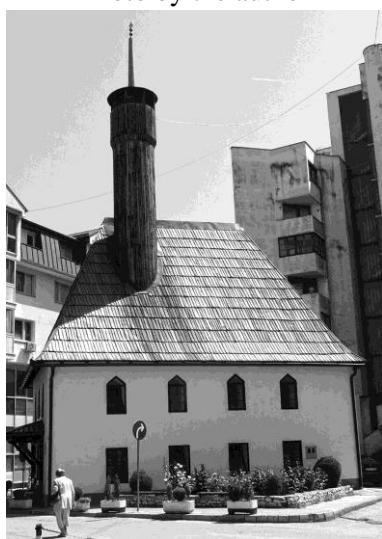


Figure 25. Konatur Mosque in Travnik (1864)
Photo by the author



Figure 26. Interior view of Terzibaša Aga Masjid in Sarajevo (1524) Photo by the author