

The Symbolism of the Minaret Designed by the Architect Ahmet Hadrovic

*Ahmet Hadrovic

Faculty of Architecture, University of Sarajevo, Sarajevo, Bosnia and Herzegovina

Email address: hadrovic.ahmet@gmail.com, ahmet.hadrovic@af.unsa.ba

Abstract— For the author of this work, winning the first prize at the General Yugoslav architectural competition for the project of the Islamic Center in Rijeka, Republic of Croatia (1991), meant 'entering the world of architecture through the big doors', in the area of then Bosnia and Herzegovina as well as in the area of former Yugoslavia. Regardless of the fact that the war in Croatia (1991-1995) and in Bosnia and Herzegovina (1992-1995) fundamentally changed the socio-political conditions, this award opened the door to all subsequent mosque projects that the author did. As an extremely important event for the author and the subject of this work, we mention the first prize he won at the Bosnian architectural competition for the Islamic Center in Banovici (1993), especially since this competition took place in the conditions of the war in Bosnia and Herzegovina (1992-1995). The fact that you are engaged in architecture during the war and that you win a monetary reward for that work (which makes your existence easier in wartime hardships) meant much more to the author than profession, than work. The minaret of the mosque was its element to which the author, in addition to its general protor concept, attached special importance.

Keywords— Mosque, Minaret, Symbolism.

I. INTRODUCTION

From the beginning of human existence, religion accompanies man as a more or less ordered system of belief and practical action with which he determines his place in the world (in space). In its multitude of forms, the common feature of all religions is man's belief that outside of him, outside of his powers, there is something stronger than him, something that regulates segments of his life, segments of his natural and social environment, and even the entire Universe. Although religion (belief) can be 'carried inside' in such a way that no one from outside has an insight into it, various ways of its formal manifestation have been established over time, including the construction of special buildings for this purpose. Over time, these buildings (temples) became symbols of certain religions, larger or smaller social communities, and even entire cultural-artistic and historical eras^[1]. Today, some of them are masterpieces of architecture (that is, of culture in general) that had a huge impact on the architecture of the temples of peoples and cultures that came later, as well as on the influence of architecture in general¹.

¹ Kaaba in Mecca (Saudi Arabia), Stonehenge (England, c. 2200 BC), Ziggurat at Ur-Namm (former Mesopotamia, c. 2113-2096 BC), Karnak Temple (Egypt, 20th dynasty, 12th century BC), Temple of Queen Hatshepsut (Egypt, 18th dynasty, around 1500 BC), several temples on the Acropolis in Athens (second half of the 5th century BC), the Maya pyramid in Tikal (Guatemala, 4th century BC), the Pantheon in Rome (120- 128), The Church

Bosnia and Herzegovina, as a consequence of its geopolitical position, was at the crossroads of human and socio-historical flows, where practically all great world cultures left their traces. Along with other traces of architecture, there are more or less preserved traces of temples from different historical eras. Roman veterans brought to these areas (from the 3rd century - 78 BC) the belief (respect) of Roman deities (Jupiter, Juno, Fortuna...) as well as respect for the Old Persian Sun deity-Mitros. Remains of mithraeums, temples in honor of Mitros, were found in Potoci near Mostar, in Lisicici near Konjic and in Konjic itself. The first traces of Christianity in Bosnia and Herzegovina date from the 4th century: oratories in Vidošćak near Stolac and Boracci near Vitina, and early Christian churches in Mogorjelo, Zitomislici, Tasovcici near Capljina, Varvara near Prozor and Lisicici near Konjic. We should also mention the visible remains of the late antique basilica at Crkvina (archaeological site) in Breza (6th century), the late antique basilica in Cim (archaeological site), Mostar (5th-6th century), the late antique basilica in Oborci (archaeological site) near Donji Vakuf (5-6 century)... After the fall of the Western Roman Empire (476), the Eastern Goths (493) with Theodoric at the head, invaded Bosnia. They stay here until the year 535, until the invasion of Byzantium. During the twenty-year war between Byzantium and the Goths, the Slavs broke into Bosnia on two occasions (around 548 and 551-553). Around 598, the Avars invaded and practically ravaged Bosnia. Architectural buildings whose remains (as archaeological sites) have been preserved to this day can be dated to this period: the Late Antique Basilica at Crkvina in Breza (6th century), the Late Antique Basilica in Cim, Mostar (5th-6th century), the Late Antique Basilica in Oborci near Donje Vakuf (5th-6th century). In the period from 1154 to 1163, Bosnia was ruled by the first known Ban Bosne-Borić. Since then, along with Christians, 'Bogomils' have been mentioned, whose religion, tradition and cultural heritage will distinguish Bosnia in particular and, we would say, trace its

of the Nativity in Bethlehem (333), Hagia Sophia in Istanbul (532-537), Hripsime in Ejmiatsin (Armenia, 618), Bete Giyorgis (Church of St. George) in Lalibela (Ethiopia , 12th-13th century), Dome of the Rock Mosque, Jerusalem (691), Borobudur Temple on Java (Indonesia, 780-850), Great Mosque of Cordoba (Spain, 785), Angkor Temple in Cambodia (802), Great Mosque in Samara (Iraq, 852), Tyagaraja Temple in Tiruvarur (India, 11th century), Sobor Sviatoyi Sofiyi in Kiev (Ukraine, 1037), Sofia Council in Novgorod (Russia, 1045-1052), Notre Dame Cathedral in Paris (12. century), Stave Church in Borgund (Norway, 1150), Amiens Cathedral (France, 1220), Cologne Cathedral (Kölner Dom, Germany, 1322), St. Basil's Cathedral in Moscow (1555-1560), Saint Peter's Basilica in Rome (1593-1626), Sultan Selim II Mosque in Edirne (Jedren, Turkey, 1568-1574)...

identity. Both the Eastern and Western Christian churches labeled the Bohumili as heretics, and as such were exposed to constant pressure and frequent physical persecutions and executions. Despite everything, they showed amazing vitality and persistence in their belief. Their mass, voluntary, acceptance of Islam with the arrival of the Ottoman administration on the territory of today's Bosnia and Herzegovina is a phenomenon that should be taken into account as a key fact in elucidating and understanding the later history of Bosnia and Herzegovina, up to this day. Popes: Gregory VII, Innocent III, Honorius III, Gregory IX and Innocent IV continuously waged wars against the Bogomils from the beginning of the 13th century. The arrival of the Franciscans in Bosnia in 1235 should also be viewed in this light: to ... "help the bishop of Darkness to suppress the Patorene heresy" [2]. The most famous religious buildings of medieval Bosnia include: Churches: Coronation and burial church of the Bosnian kings (Mila archaeological site), Arnautovići near Visoko (13th-14th century), Church of the Mother of God in Olovo (14th century), Church of St. Georgija in Sopotnica near Goražde (15th century), Church of St. Ive in Podmilačje (before 1461), Church of St. Peter and Paul, with the cemetery, judges' chairs, yard and wall in Ošanići (before 1505), the Old Church of Varaš (Small church dedicated to St. Michael) in Varaš (16th century); Monasteries of the Catholic Church: Around 1385, 35 monasteries were built on the territory of today's Bosnia and Herzegovina, four of which were located in Bosnia (Franciscan monasteries in Visoko, Lašva, Kraljeva Sutjeska and Olov). In the part of Herzegovina, the most famous Franciscan monastery is Gorica, Livno (14th century); Orthodox Church monasteries: Moštanica Monastery near Bosanska Dubica (1113), Dobrićevo Monastery near Bileća (1232), Sase Monastery (1242), Tavna Monastery near Bijeljina (13th century), Zavala Monastery near Trebinje (13th century), Dobrun Monastery near Visegrad (1383), Gomionica Monastery (15th century), Rmanj Monastery in Martin Brod (1440), Zitomislci Monastery near Capljina (15th century). By capturing the royal city of Jajce in 1463, the Ottomans became the new masters of today's Bosnia and Herzegovina. It is not without significance to point out that the Ottomans found an almost completely Bogomil Bosnia, about which Vjekoslav Klaić in the History of Bosnia writes: "After the death of King Stjepan Dabisa (1395), dark days arose in Bosnia for the Catholic Church. The struggles for the throne and the raids of the Turks made the Patorene faith unusually felt and almost prevailed in the entire state..." [2]. In a relatively long period of time, the main feature of which is the continuity of one government, a rich cultural heritage was created in which architecture has a particularly important place. Among the multitude of architectural programs, many mosques stand out.

II. MOSQUES

A mosque is a place where Muslims pray [3]. The complete substantive analogy between the mosque and man only comes to the fore when analyzing the crowning physiognomy of the mosque space and the 'space' of man's inner being. The mosque space is designed with minaret, mihrab, mimber and

jurs, and man's inner being with spiritual heart (fuād), soul (nafs), contemplative mind ('aql) and creative imagination (khiyāl). What the minaret is for the mosque, as the vertical that connects Heaven and Earth, transitory and eternal, it is the contemplative mind for man's microcosmic temple, that 'interpretive prophet' in him that helps him to unerringly draw the line of distinction between truth and lies, illusions from of reality, the beautiful from the ugly, the just from the unjust... What is the mihrab for the mosque, it is the spiritual heart in man, the only 'place' in man's microcosmic temple worthy of the presence of God. What the minbar is for the mosque, it is the soul for man, that undisputed 'ruler' of the entire microcosmic kingdom, who listens to the messages of the holy call from the minaret and the quiet whisper from the mihrab, in order to compose herself and know in which direction the 'Nuhov ship' should be steered. ' of the human person in his life-long navigation through the space and time of man's earthly years. Finally, what is important for a mosque is the 'creative imagination' in the human microcosm, an organ of supersensible cognition that helps man to transcend, at least for a moment, the boundaries and boundaries of cosmic time and space, to 'walk' between worlds and interpret symbolic architectonics language of the philosophy of total existence, all the more so because this language is always mysterious and enigmatic towards the lower worlds, while towards the higher worlds it develops from the mystery of symbols into the pure Reality that is the only one [4].

The Kaaba² in Mecca (Al-Masjid al-Harām = the holy mosque) is the physical and mental center of Islam, the vertical (qibla) towards which all Muslims of the world are directed who believe that it is the first thing that God (Allah) created on Earth, and that there are seven more Kaaba above it, in the seven heavens [5]. Muslims believe that above the

² Kaba: Arabic: الكعبة, al-ka'bah = cube, refuge of Islam

³ Muslims base this belief on the Qur'an itself (the book of Allah), which was sent through the Prophet Muhammad, peace be upon him, addressed to the entire world:

"And when We showed Ibrahim the place where the Temple is as a place of refuge, we said: "Do not consider any of these equal to Us, and purify this Temple of Mine for those who will visit it, who will live there near it, and who will perform the prayer (Qur'an, Al-Hajj: 26)...and announce the Hajj to the people!" - they will come to you on foot and on emaciated camels; they will come from faraway places (Qur'an, Al-Hajj: 27). It is said in the Qur'an: "The first Temple built for people is the one in Mecca, blessed is it and a guide to the worlds (Āli `Imrān: 96)... In them the signs are obvious - the place where Ibrahim stood. And whoever enters it should be safe. For the sake of Allah, everyone who is able to make a pilgrimage to the Temple is obliged; and the one who does not want to believe - well, indeed, Allah is not dependent on anyone. (Qur'an, Āli `Imrān: 97).

It is said in the Qur'an: "And when Ibrahim was tested by his Lord with several commandments, and he fulfilled them completely, Allah said: "I will make you a model for people in faith!" - "And let it be my offspring!" - he asked. - "My promise will not include the unbeliever" - He said. (Al-Baqarah: 124) He said. "And We made the Temple a refuge and a safe place for people. "Let the place where Ibrahim stood be the place behind which you will pray!" - We ordered both Ibrahim and Ismail: "Cleanse My Temple for those who will visit it, who will be stay there and who will pray both times". (Al-Baqarah: 125). And when Ibrahim asked: "My Lord, make this place a safe city, and supply its inhabitants with fruits, those who believe in Allah and the Hereafter!" - He said: "He who does not believe, I will let him enjoy himself for a while, and then I will force him to enter Hellfire, and its abode will be horrible!" (Quran, Al-Baqarah: 126) And while Ibrahim and Ismail were raising the foundations of the Temple, they prayed: "Our Lord, accept from

Kaaba on Earth and the seven Kaabas in the seven heavens is the throne of God (Allah). By circumambulating the Kaaba on Earth, people join the angels (angels) who are permanently circling around God's throne and thus show their submission and gratitude to God (Allah). Muslims believe that there is no more important (holy) point on Earth than the Kaaba. The Kaaba itself is a building whose shape is close to the shape of a cube with a side of 11 m and a height of 17 m. In the southeastern part of the Kaaba, in its wall, the Black Stone (Hajjerul-esved), the holiest part of the Kaaba, is embedded. Muslims believe that if they touch it, their prayers will be answered. Visiting the Kaaba (hajj) is one of the basic duties of every Muslim and he is obliged to fulfill this duty, if he has the opportunity (Figure 1).



Figure 1. Aerial view of the Kaaba complex in Mecca

Source: <https://www.wondermondo.com/kaaba-and-masjid-al-haram/>, Accessed: October 7, 2023.

Source: <https://punkufer.dnevnik.hr/clanak/putovanja/kaba-najsvetije-mjesto-muslimana---788990.html>, Accessed: October 7, 2023.

The Prophet's Mosque in Medina (Al-Masjid al-Nabawī) is the second most built mosque in history. The mosque was built next to the house where the Prophet Muhammad, may God bless him and grant him peace, stayed. after arriving from Mecca to Medina, and the Prophet Muhammad s.a.w.s. also

us, because You, indeed, hear everything and know everything! (Quran, Al-Baqarah: 127). Our Lord, do Let us both be devoted to You, and let our childbirth be devoted to You, and show us our rites and forgive us, for You accept repentance and are merciful! (Qur'an, Al-Baqarah: 128). Our Lord, send them a Messenger and, one of them, who will tell them Your revelations and teach them the Book and wisdom and purify them, because You are truly Mighty and Wise." (Quran, Al-Baqarah: 129).

Source: Quran with translation. Translated by: Besim Korkut, Oriental Institute in Sarajevo, special editions VII, Sarajevo, 1977.

participated in its construction. with his friends (companions). In addition to the needs of performing prayers, the mosque served as the administrative-administrative headquarters of the social community, the seat of the court and as a religious school (Figure 2). Over time, this mosque was expanded, and today it is one of the largest in the world (it can accommodate about 20,000 worshipers who pray). The ritual of performing Hajj includes (in addition to visiting the Kaaba, a tour of Mount Arafat and the Mina complex in Mecca) and a tour of this mosque. This mosque, after the Kaaba in Mecca (Masjid al-Haram), is the second most important holy place in the world of Islam.

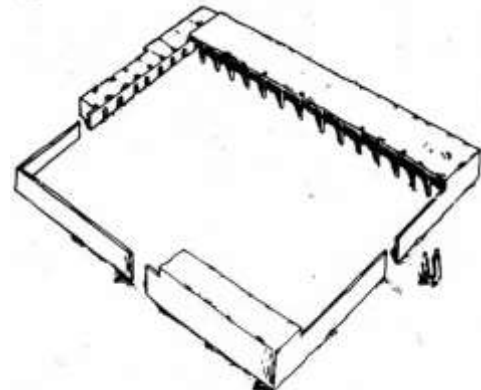


Figure 2. The Prophet's s.a.w.s. mosque (Al-Masjid al-Nabawī) in Medina.

Left: Reconstruction of the Prophet s.a.w.s. mosques in Medina (622) according to Creswell. Right: today's appearance of the Prophet s.a.w.s. mosques in Medina

Source: <https://www.soundvision.com/article/rememembering-the-prophet-and-his-masjid>, Accessed: October 7, 2023.

Source: <https://www.islamiclandmarks.com/madinah-masjid-e-nabwi/the-city-of-madinah>, Accessed: October 7, 2023.

The Dome of the Rock (Qubbat As-Sakhrah) Mosque in Jerusalem was built (691) by Caliph Abdel El Malik, who belonged to the Umayyad dynasty (661-750). After the Kaaba in Mecca and the Prophet's peace and blessings be upon him. mosques in Medina (Al-Masjid al-Nabawī), the Dome of the Rock in Jerusalem is the most significant mosque (or holy place in general) in the Islamic world. At one time (from 610 to 623) there was a Qibla (Arabic: *قبلة* = direction) towards which Muslims turned during prayer. The mosque was built as a "dome on the rock", where the rock is the peak of Mount Moriah where, according to tradition, Abraham was supposed to sacrifice his son and the place of the ascension of the Prophet Muhammad. into the sky. The Dome of the Rock

Mosque is the oldest, original preserved mosque in the world (Figure 3).



Figure 3. Dome of the Rock Mosque (Masjid Qubbat As-Sakhrah), Jerusalem (691)

Source: <https://www.pinterest.com/pin/alaqsa-to-be-converted-into-a-park-by-israelis--106256872429210332/>, Accessed: October 7, 2023.

Source: <https://www.islamiclandmarks.com/palestine-masjid-al-aqsa/interior-of-the-dome-of-the-rock>, Accessed: October 7, 2023.

The Great Mosque of Damascus or Umayyad (Umayyad) Mosque (Ġāmi' Banī 'Umayya al-Kabīr) is one of the oldest mosques in general, built (706-715) in the center of the old city of Damascus, after it was conquered by the Arabs (636) under the leadership caliph Walid I (Halid ibn Walid, 585-642). The mosque was built in a place that has an extraordinary importance and genius loci energy for all mankind. An Aramaic temple dedicated to the deity Hadad was built on this site, then a temple to the Roman deity Jupiter and a basilica dedicated to John the Baptist (known to Muslims as Yahya). The model on which the Great Mosque in Damascus was built was the Prophet's. the mosque in Medina (Al-Masjid al-Nabawī). The mosque was built by around 200 of the then most famous Byzantine architects and craftsmen, which is evident in the appearance of the mosque itself, both in its interior and exterior. At that time, the mosque was one of the largest buildings in the world, and was considered a miracle. It is interesting that the minaret of the mosque is called the Minaret of Jesus (Isa), as future Muslims believe that Jesus (Isa) will appear on it before the Day of Judgment (Figure 4).

III. THE AUTHOR'S APPROACH TO DESIGNING MOSQUES

The author's experience from public and invitational tenders for mosque projects shows that every author-architect has his own idea of a specific task (mosque project). These ideas

derive partly from the general view of the world of each architect, that is, from his architectural aesthetics, a partly from more or less "learned programming principles" of a specific architectural program. The author especially confirmed this belief in his experience as a member of the jury at the public competition for the Mosque in Ljubljana (2012).

Philosophical and scientific foundations. The approach to the design of mosques, as well as the approach to the design of any architectural program, was defined by the author in his doctoral dissertation entitled *Defining architectural space* on the example of an oriental-type town house in Yugoslavia (1988) at the Faculty of Architecture of the University of Sarajevo. As the dissertation was published by the author [6], here we present its basic scientific and theoretical foundations.



Figure 4. The Great Mosque of Damascus (Ġāmi' Banī 'Umayya al-Kabīr)
Source: Sakim Hodzic (August 2008)

Space is one of the most open concepts that philosophy, all natural and social sciences and art, problematize and interpret again and again. Space is the most general concept that is characterized by: omnidimensionality, boundlessness, ubiquity. According to the theme of this paper, Space is everything that is, what was and what will be [6]. The environment is understood as every possibility in the space in which man can realize his existence. Man is a complex phenomenon in nature, exceptional due to the simultaneous manifestation of his biological nature (which is a characteristic of all living beings), reason and affectivity (which is exclusively his characteristic). In nature, some species live in communities whose organization is amazing (bees, termites, ants, packs, flocks...); however, these organizations are constant, unchanging from generation to generation of a certain type. Man, the only living creature, creates

communities that change over time (sometimes specific by geographic area). These communities (which he himself defines as society) become, along with nature, a given reality, man-made 'nature' for each new human generation. Since he is its 'creator', the structure of society will be more or less stable; his changes are less often peaceful, more often violent, accompanied by huge sacrifices of opposing groups. History has shown that the organization of society, much more than the given nature, decided the development and manifestation of the generic nature of man-individual. It was the structure of society, the mostly imposed value system and the prevailing view of the world that determined the relationship of man-individuals and their communities to given nature. Architecturally Defined Space (ADS) is a purposeful enclosure of 'space in general' that is exclusively made by man using various materials, in a rational-irrational way and in a beautiful way, with the aim of satisfying a wide range of human needs. Architecture is created as a result of a dynamic struggle between man (that is, the complex of his needs), on the one hand, and a wide range of environmental influences (natural and social environment), on the other hand. The result of that struggle is the physical appearance of architecture (Boundaries) that is created according to the present (modernity), with memories of the past (continuity) and anticipation of the future (Perspectives).

IV. MINARET

Minaret is a more or less high tower next to the mosque from which the call to prayer is called (adhan). The word originates from the Arabic (منارة = manāra) or Persian (مناره = menare) language, which means 'lighthouse'. The Arabic word 'manāra' originally meant 'lampstand', similar to the Hebrew 'menorah'. The word 'manār' means 'place of light'. Both words come from the Arabic root n-w-r, which has a meaning related to 'light'. Both words had other meanings attested in the early Islamic period: 'manār' could also mean 'sign' (showing where to go), and both 'manār' and 'manāra' could mean 'lighthouse'.

The first mosques did not have this element, but it appeared in the second half of the 7th century and over time became an important and recognizable element of every mosque (Figures 5-10). The minaret of the Great Mosque in Damascus (715), one of the first built mosques in general, served as an observation post from which messages were sent by the light of lit torches.

As a vertical visible in space, both natural and built, the minaret became a symbol not only of the mosque as a place for prayer, but also a sign of the presence of Islam as a religion, culture, value system and general outlook on the world. Some saw the minaret as a 'gate between earth and heaven', as a 'finger of tahwid' (the outstretched finger with which Muslims show the unity of Allah), as an 'elif', i.e. the first letter of the Arabic alphabet recognizable by its uprightness and which is found in the name of God, Allah (الله). Over time, the minaret was built from different materials, with different designs, in accordance with the local natural and social environment. Similar to the architecture of skyscrapers or television towers, for example, the construction of minarets

has become a worldwide race, and some of them have reached astonishing heights.



Figure 5. Low minarets: Left: Sidi Abd Alwahab Mosque, Tripoli. Center: Bolo Haouz Mosque in Bukhara, Uzbekistan (1712). Right: El May mosque on the island of Jerba, Tunisia
Source: <https://www.temehu.com/islamic-tourism-and-mosques.htm>, Accessed: October 6, 2023.
Source: <https://www.advantour.com/uzbekistan/bukhara/bolo-hauz.htm>, Accessed: October 6, 2023.
Source: https://www.voyagevirtuel.co.uk/tunisie/photo/djerba-el-may_9110.php, Accessed: October 6, 2023.



Figure 6. Minaret of the Great Mosque in Damascus
Source: Sakim Hodzic (August 2008)



Figure 7. Malwiya minaret The Great Mosque of Samarra, Iraq (851)
Source: <https://www.atlasobscura.com/places/great-mosque-of-samarra>, Accessed: October 6, 2023.

In Bosnia and Herzegovina, there are two types of facilities for Muslims to pray: masjid and mosque. A masjid

does not have a minaret, while a mosque does. However, in its original meaning, a masjid (Arabic: *مسج* = a place of spread, a place of worship) is a facility for performing prayer, while a mosque (Arabic: *جامعة*) is a university, a facility where Jumanamaz (weekly, on Fridays) is performed.

In the mosques presented in this paper, in the design of the minaret, the author had in mind its 'sign of the place' dimension, and used light (both daytime and artificial) that symbolizes 'good' [7]. That is why here the minaret is, most often, free of all historicism (especially the influence of Ottoman architecture), since its significance and message are universal.

the design of the sherefat of some solutions of the traditional wooden minarets of mahal mosques in Bosnia and Herzegovina. In fact, the minaret is designed as a 'giant lamp' where the solid reinforced concrete elements contrast with the metal-glass canvases of the minaret envelope. During the day, the reinforced concrete structure of the minaret stands out with its whiteness against the dark surfaces of the metal-glass curtain, while at night the opposite is the case: the light that emerges from inside the minaret through the metal-glass surfaces contrasts with the dark surfaces of the reinforced concrete structure of the minaret [8,9] (Figure 11).



Figure 8. Hassan II Mosque in Casablanca, Morocco (1961). The minaret of this mosque is the highest (210 m) in the world

Source: <https://www.moroccovacation.com/discover-hassan-ii-mosque-of-casablanca/>, Accessed: October 6, 2023.



Figure 10. Minarets of the Kaaba-Mosque in Mecca (al-Masjid al-Harām)
Source: Author (April 25, 2008)



Figure 9. Qutub minaret in Delhi (1193). The minaret of this mosque is the tallest (72.5 m) brick minaret in the world

Source: <https://www.afar.com/places/qutub-minar-new-delhi>, Accessed: October 6, 2023.



V. EXAMPLES OF THE AUTHOR'S MINRET DESIGNS

The mosque in Binjezevo near Hadzici is located about 8 km west of Srajevo (Geographic coordinates: 43°50'42.02"N, 18°13'39.43"E, Elevation: 524 m). The design and material of the minaret of the mosque was a complete novelty in the construction of mosques in Bosnia and Herzegovina at that time (1989). The element of the sherefat somewhat resembles



Figure 11. Mosque in Binjezevo near Hadzici

Source: Author (September 10, 2010)

Source: Vladimir Obradovic (July 28, 2017. drone photos)

The mosque in Tarčin is located in the Japalci settlement, next to the northwestern edge of the local cemetery and the old mosque built in 1927 (Geographic coordinates: 43°47'27.85"N, 18°05'51.97"E, Elevation: 658 m). The mosque was designed in 1989, and its construction and opening took place only in 2007, after the war (1992-1995). This is one of the first mosques in general that was designed in the former SFRY (that is, SR Boni and Herzegovina). With its location, the mosque 'preserves the energy' of the genius loci of the existing mosque with the local cemetery. The new mosque has a spacious yard (harem) where the parking lot will be arranged as a green area with fruit trees, lawn and decorative trees. The small river that begins the location is its great asset, which will be included in the final exterior decoration of the mosque complex [8,9]. The specificity of this mosque (which will appear in various solutions in all the mosques presented here) is the design of the mihrab. In the design of this element of the mosque, light is always used, in such a way that during the day (viewed from the inside to the outside) it suggests 'the light of the perspective qibla', and during the night (viewed from the outside of the mosque) it suggests 'a place from which good messages are sent to the environment' . According to the original project, the design of the minaret of the mosque in Tarčin was identical to the design of the mosque in Binjezevo. Unlike the minaret of the mosque in Binjezevo (which was completely built according to the author's design), the design of the sherefet was taken from the original project in the construction of the minaret of the mosque in Tarčin, while the body of the minaret was built according to the standard solution (Figure 12).



Figure 12. Mosque in Tarčin

Source: Author (August 24, 2016)

Source: Vladimir Obradovic (July 27, 2017. drone photos)

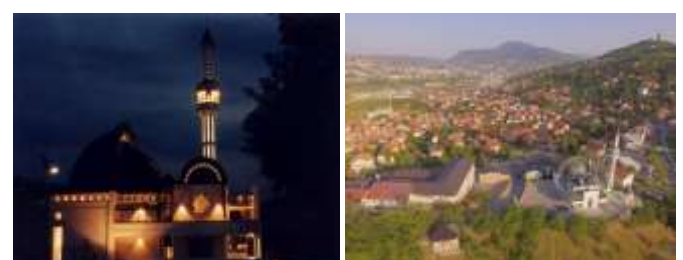
Adil Bey's mosque in Sarajevo (built in 1999) is located along the road Sarajevo-Vogošća-Tuzla, at the very entrance to the city from the direction of Vogošće (Geographic coordinates: 43°53'01.95"N, 18° 23'04.84"E, Elevation: 640 m). On the site of this mosque stood a smaller mosque built and newly opened (1989) on the eve of the war in Bosnia and Herzegovina. The minaret of this mosque (which was demolished in 1992 due to shelling) was designed by the author of this work, and was a hint of a new approach to the design of religious buildings [10]. In the design of the central dome, the author, in addition to the necessary attention in terms of its constructive role, also paid particular attention to the provision of high-quality (uniform) natural lighting and emphasized symbolism: the combination of the larger and smaller segments of the dome resulted in an arc of light that symbolizes the ceremonial entry into Sarajevo with a welcome . In this, as in all other mosques, the author treated day and night equally, that is, he gave light the importance of building material. During the day, light from the firmament reaches the mosque in a way that its visitor has yet to discover, while at night, light emerges from the mosque as a cheerful and encouraging sign. The terrace at the level of the mahfil is a place for prayer, both in summer and in winter. This motif of the traditional loggia (divanhana) got its modern meaning through the 'double membrane' solution of the architectural object, which ensures internal comfort through the effect of a greenhouse in the winter, or intensive natural ventilation in the summer.

The minaret was designed as a 'spatially developed arabesque' with a lot of symbolism, in which light effects, according to a special program, suggest the significance of events in the mosque (Figure 13).



Figure 13. Adil Bey's mosque in Sarajevo

Source: Author (July 15, 2017)



Source: Vladimir Obradovic (July 24, 2017, drone photos)

The Kuwaiti Mosque in Sarajevo (built in 2006) is located in the Sarajevo neighborhood of Čengić Vila, next to the main city road known as the 'backbone of Sarajevo' (Geographic coordinates: 43°51'04.30"N, 18°22'24.56"E, Elevation: 522 m). Upavo's location will give great value to this mosque and make it constantly present in the everyday life of a large number of Sarajevo residents and its guests ^[10].

The minaret was designed as a 'huge lamp', the vertical of which 'grows' from the arabesque of the minaret floor plan (Figure 14).



Figure 14. The Kuwaiti mosque in Sarajevo

Source: Author (July 15, 2017)

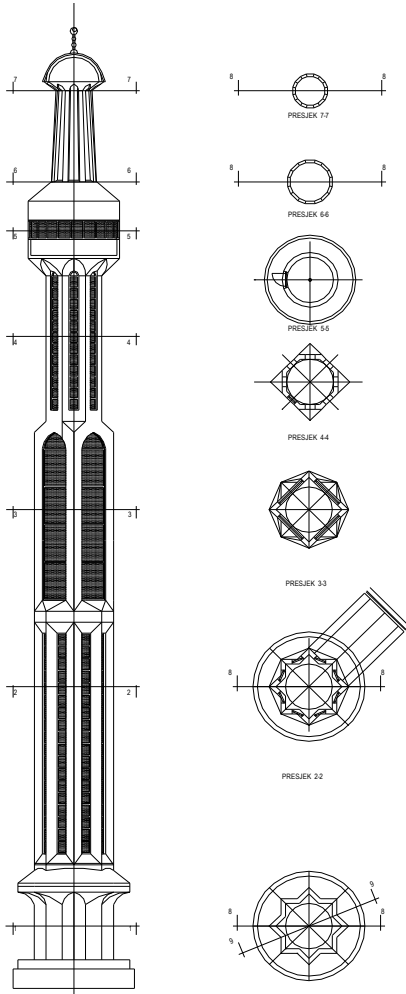
Source: Klix (July, 2017, drone photos)

The city mosque in Breza near Srajevo was designed in 2002, and its construction continues to this day (Geographic coordinates: 44°01'12.99"N, 18°15'38.44"E, Elevation: 500 m). At the time of design and now, near the end of its construction, the City Mosque in Breza is the largest mosque in Bosnia and Herzegovina ^[11,12]. At the time of the design, the author was convinced that it was only about the wishes of the

client, however, the construction of this mosque was brought to an end. Until the war (1992-1995), Breza was known as a 'mining town' in which the 'social elite' (directors, professors, doctors) consisted of people from the outside, while the local population (regardless of ethnicity) constituted the 'working class' establishment. class and peasant'. After the war (1992-1995), the indigenous population of Breza entered the social stage. It soon became clear that Breza already had a large number of domestic intellectuals of various profiles who had obtained university degrees even before 1992. Having become a social entity in full capacity, the population of Breza after 1995 is massively educated and shows a magnificent talent for business. Breza is a small town in Bosnia and Herzegovina, about twenty kilometers from Sarajevo and about nine kilometers from Visoko. The mosque is located in the very center of the city, in the immediate vicinity of the municipal building, the post office, the police, the central square with the clock tower and the memorial park. Next to the mosque building is a spacious mosque courtyard (harem). The design of the exterior of the mosque envisages the preservation of the trees found in the existing park, which, after the enclosure of the harem, will be found within the mosque.

This huge eight-pointed star (in the ground plan of the mosque's physical structure) is vaulted with a 20 m span reinforced concrete dome in such a way that the base ring of the dome rests on the inner peaks of the eight-pointed star; at the same time, the arms of the star are obliquely cut at the top, from the base of the dome outwards, thus forming triangles in the roof. These triangles are materialized as metal-glass curtains, 'windows of heaven', through which the inner space of the mosque receives abundant natural light and through which the internal lighting emerges from the mosque at night. The minaret of the mosque was designed as a huge lamp, the vertical of which develops from the rabesque in its floor plan. The base of the minaret is designed as a fountain, which, along with light, also includes water (as the basis of life) in the design of the minaret (Figure 15).





The mosque in the village of Rakitnici (built in 2008) is located on the plateau of the mountain Bjelašnica (Geographic coordinates: 43°39'26.18"N, 18°16'24.21"E, Elevation: 1166 m). Although physically the smallest, this mosque, more than all the mosques presented in this work, reflects the author's approach not only to the design of mosques, but also to architecture as a whole [9]. The mosque corresponds to the well-known Bosnian mahal mosques, whose physical body is no larger than the houses in the mahal. The mosque in the village of Rakitnici in Bjelašnica has a sloping roof and a minaret (though constructed of steel pipes) which in its design resembles the wooden minarets of mahal mosques (Figure 16).

The mosque was designed and built for the needs of the residents of the village of Rakitnica on the vast plateau of the Bjelašnica mountain, about 25 km southwest of Sarajevo. Until 1992, Rakitnica, as well as the entire plateau of Bjelašnica, did not have a high-quality traffic connection with any larger settlement in its geographical surroundings. Partly during the war (1992-1995), mostly after 1995, all the villages on the Bjelašnica plateau got high-quality paved roads with which, via the Bjelašnica and Igman Olympic centers, they were connected to the traffic network of Bosnia and Herzegovina. For the author, this fact was one of the main inputs in the design approach of the mosque in Rakitnica.



Figure 15. City mosque in Breza

Source: Vldimir Obrdovic (July 29, 2017, drone photos)

Source: Author (drawing, 2002)

Source: Author (July 15, 2017)

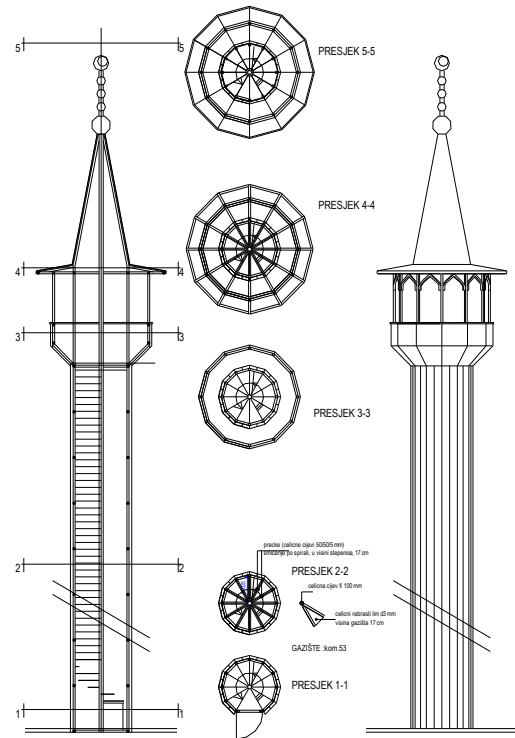




Figure 16. Mosque in the Rakitnica village on the Bjelsnica mountain
Source: Author (July 29, 2017)
Source: Vladimir Obradovic (July 25, 2017. drone photos)

VI. CONCLUSION

In his extensive architectural and design oeuvre^[8], for the author of this work, the design of mosques was the most challenging, since it is an architectural program that, in addition to empirical inputs (function, disposition, construction, ensuring people's comfort), should satisfy the most intimate mental and spiritual needs. human dimensions^[4,6,13,14]. One of the biggest challenges for the author was 'bridging' the perception of the mosque (minret) in people's minds, from the inherited forms of the mosque from the Ottoman period in Bosnia and Herzegovina to the mosque of the modern era. For the author, it was encouraging to know that religious people recognized his design of mosques as their own, in modern times. The poetics of the mosque space is expressed in a multitude of architectural forms whose

'concreteness' is most evident in straight, curved, circular, semicircular, elliptical, quadrangular and other lines, which are concrete enough to clearly emphasize the aforementioned poetics of the mosque space, and yet abstract enough to move the mosque space into the predominance of the imaginative one, which alternately offers the observer from the side the dome-vaulted inner space of the mosque, and the image of the endlessly open space of the macrocosmic temple vaulted by the endless 'dome' of the firmament. This alternating playfulness of the architectural language of the mosque building and its constant doubling of the macrocosmic and microcosmic image of the mosque space simply leaves us wondering in our own amazement: where, in fact, are the real boundaries of the mosque space? The whole world is a place (mosque) suitable for individual and collective, secret and public conversation between man and God, man and all the universes in and around him. On the other hand, if the symbolism of the mosque essentially corresponds with the symbolism of the human person as such, and definitely corresponds, then the boundaries of the mosque space completely overlap with the boundaries of human nature, with the primordial, primordial nature of the human personality, which is defined as an all-encompassing existent within the Islamic religious worldview. (al-kawn al-jāmi') in which every bit of the macrocosm is collected and which, therefore, symbolizes the 'bank of stem cells of the universe' as such. Just as the mosque space encloses the entire hierarchy of macrocosmic worlds⁴.

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⁴ The author would like to thank Academician Prof. Dr. Resid Hafizovic, who helped the author in understanding the mosque (and the minaret, especially) based on the Qur'an.



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