FROM ANATOLIA TO BOSNIA

Perspectives on Pendentive Dome Mosque Architecture

Editors

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CONTENTS

'DOUBLE-SPACE' IN MOSQUE ARCHITECTURE THROUGH ITS EVOLUTIONARY JOURNEY TO BALKANS

Murat Cetin

INTRODUCTION

This topic looks into the use of pendentive dome (Figure 1) in mosque architecture of Balkans from a perspective of its meaning as an expression of 'double-space' which has accumulated multiple layers of sociocultural complexity throughout its evolution in Ottoman era. For this purpose, it elucidates characteristics of mosque architecture and its intrinsic duality by analysing the idea of double-space, its conceptual background and cultural aspects. Meanwhile, this topic challenges the general assumptions about the space of worship and mainstream perception of dome as a main architectonic instrument in achieving the sense of double-space in mosque architecture. Along this line of thinking, the issue of double-space is tackled on several fronts. One of these fronts is the duality within mosque itself whereas the second is the duality between Balkans and Islam.

Dialectic nature of human existence on earth as well as dichotomies embodied in the notion of faith is manifested in the spatial dimension, particularly in the typologies of religious architecture. This topic discusses that the notion of double-space lies at the very heart of this duality and elucidates the component of pendentive dome as a spatial feature which responds and reconciles these dichotomies throughout its emergence and evolution in the history of Islamic architecture and its journey from Middle East to Balkans. It is further suggested, here, that pendentive dome, as an architectural element, has not only served to ease immaterial and material polarities but also to reconcile the abrupt socio-political conflicts confronted with the expansion of Ottoman Empire and spread of Islam into the European territories. Thus, pendentive dome addresses

Figure 1.
Sultan Ahmed Mosque, an example of the mosque designed with pendentive dome in Istanbul, Turkey

multifaceted concerns determining the broader context of mosque architecture. Therefore, it is intended firstly; to explore the links among the immediate and daily needs, habits, spiritual ties, cultural concerns, environmental anxieties, ideological formations and political systems surrounding Muslim societies via cross-cultural references, and secondly; to support the hypothesis that pendentive dome, as a manifestation of double-space in mosque architecture, epitomizes the tectonic response to the phenomenon of spatial duality as an expression of intrinsic ontological, functional, cultural and ecological dichotomies in Islamic architecture.

Along this line of discussion, this topic firstly elucidates the phenomenon of **duality** and its relation to the notion of **double-space** in the context of mosque design (Figure 2). At that point, the topic defines two interrelated frameworks of discussion one of which is related to intrinsic dualities of the faith, whilst the other is associated with the duality of politics, that of East versus West, referring to the relation between Islam and Balkans. On the one hand, the duality in the framework of faith and with reference to the architecture of mosque is discussed by addressing the issues in regard to the inherent conflicts at spiritual, cultural, pragmatic and material levels in mosque architecture. In that context, the origins
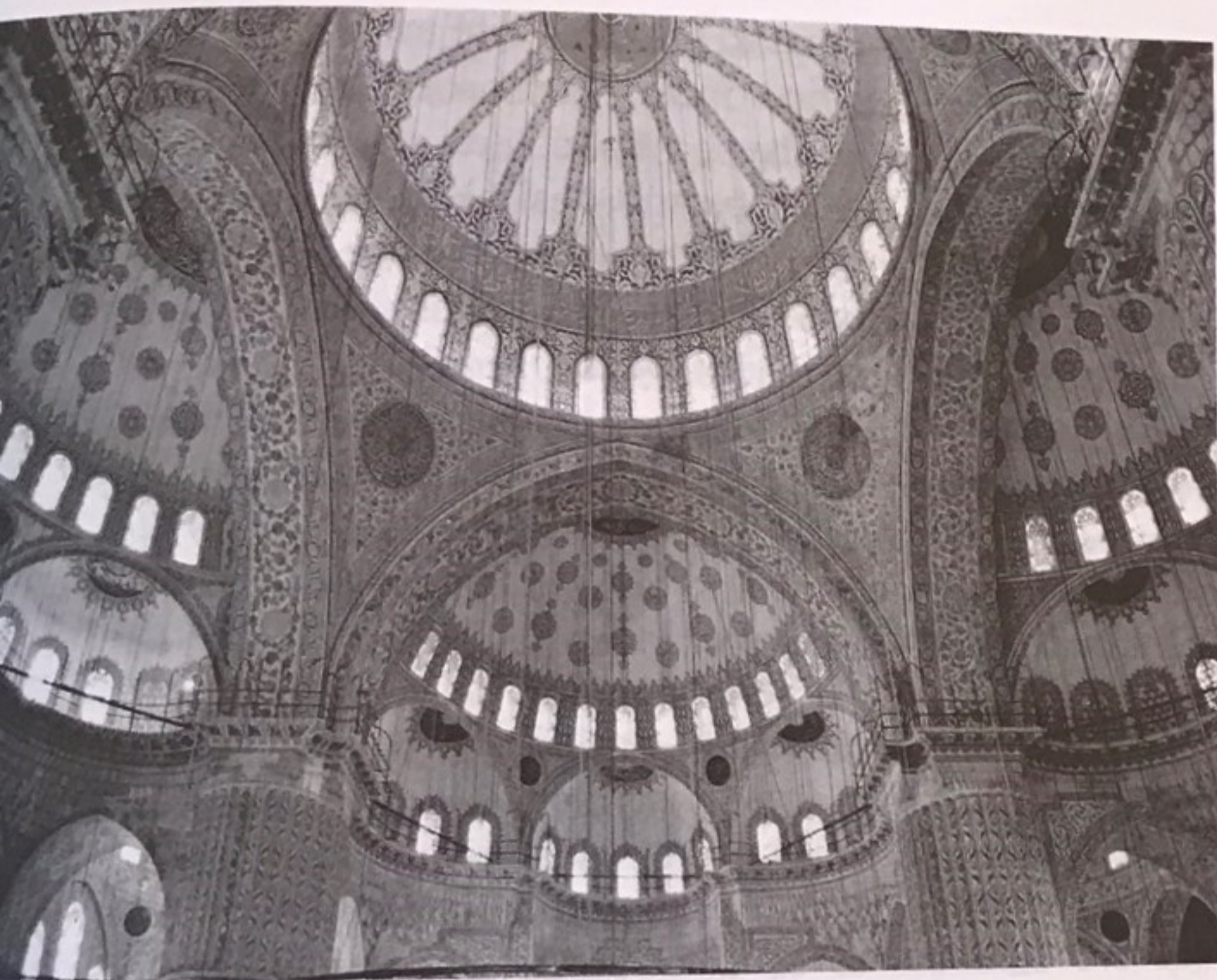
Figure 2.
Interior space of Sultan Ahmed Mosque in Istanbul, Turkey with an expression of double-space design

and evolution of mosque is revisited, and the location of height and emergence of dome is critically examined in addition to its spatial, climatic and material aspects. On the other hand, the duality in the framework of politics of East versus West is discussed briefly over the history of Islam through its transformation and adaptation in Turkey, on its path to Balkans. At that point, the role of Anatolia with its cultural sources and the embedded traditions is emphasized. Along this path, how duality between West and Islam, with specific case of Balkans under Ottoman reign, was resolved is investigated in relation to the role of culture and architecture in particular.

DUALITY

As mentioned in the introduction, human existence on earth itself harbours the basic duality of 'life and death', thus that of 'life and afterlife'. Seen from this perspective, the discussion of religion, sacred architecture and its components including the pendentive dome yields onto the debate about the matter of duality and its ramifications. Doubtlessly, duality has multiple dimensions; it

accommodates the dichotomies between earth and paradise, life and death, body and soul, material and immaterial. In the specific context of mosque architecture, moreover, it also includes the dichotomies between space (as the essence of architecture) and form (as the expression of vanity and desire) as well as those between inside and outside, building and urban context (Shorakhmedov, 1999), city fabric and *qibla* direction (Taj, 1999) which delineates angular displacement; and therefore denotes some type of incompatibility of secular and sacred grids. Furthermore, the subject of mosque architecture also covers functional dichotomies; in other words, conflicts between worship and social functions which refer to the dichotomy between spiritual and daily needs (Kuban, 1974; xxii). All these conflicts and many other minor antagonisms clearly portray the dual nature of religion and its architectural dimension.

Above all these, religion itself withholds the intrinsic and divine duality that is also reflected in the names of Allah: *Al-Zahir* (manifest) and *Al-Batin* (hidden). This ultimate duality can be translated into our case of mosque architecture as the eternal dichotomies between visible and invisible, material and immaterial, tangible and intangible. The following sections explore how mosque architecture materializes and symbolizes this dialectical essence through the expression of architectonic element called 'dome'.

The Notion of Double-Space as a Response to Dualities of Religious Faith

Although the early worship spaces were constructed in the form of being divided into repetitive units due to the structural posts with relatively short spans to carry the flat roofs above the prayer halls (e.g. hypostyle mosques), the origins of prayer area initially started with the idea of a single and unified space as can be observed in the prayer courtyard of the Prophet Muhammad (pbuh)'s house. However, the eternal questions, growing in time, in regard to the meaning of 'life on earth' and 'life to come' may have demanded a split in the perception of space, particularly in the places of worship where minds and souls of believers search for peace. As a result of this conceptual demand, a gradual transition from single, unified and horizontally organized spaces into vertically accentuated spaces and perceptual division between the main structure of the building and its upper roof structure could be observed particularly during the period following the 10th and 11th centuries. Thus, a sense of verticality must have then been introduced into Islamic religious architecture. The discussion of height is revisited in early Islam in the forthcoming sections below.

The notion of verticality had firstly started to be expressed through conical upper structures that were particularly utilized by Indian cultures in Middle Asia and in Seljuk architecture in Anatolia (eg. Divrigi mosque). The language of pyramidal shapes and triangulated forms, which constitutes the basis of the transition element, called 'Turkish tromp', from a square-based wall structure to polygonal upper structure, has laid the foundations of the tectonic component of pendentive dome as the typical roofing system for mosque architecture. The triangulation used in **squinches** and **muqarnas** for transition from square base to polygonal (and later circular) roof had been gradually elaborated into pendentives.

Eventually, a transformation from a unified, or rather a single space into a new notion of double-space occurs in functional, symbolic, climatic and spiritual terms. Such a double-space and its associated architectural morphology and typology would well respond to the aforementioned conceptual dichotomies. This phenomenological division, although conditioned by many other material, visible and tangible factors, had to be inspired by immaterial, invisible and intangible sources so as to enhance the spiritual content of the faith and its spatial-physical dimensions. Therefore, the insertion of double-space had been implemented in such a way to be able to divide the space vertically in the third dimension, to divert the attention of worshippers and to lead their perception to heavens of the sky (Mainzer, 1996).

Thus, the precedent of dome, which has formerly been used as a tectonic element, stood as an ideal spatial response to the intrinsic and emergent dualities of the Islam which promises to reconcile the material and spiritual values. Indeed, the experience inside a mosque starts with entering from a small scaled space, immediately continues with moving towards the centre where the change of scale (gradually or suddenly) occurs. The experience, then, proceeds with one's sight being attracted upwards towards this change of scale. It is carried on by turning one's eyes, head or whole body around one's own (also the space's) central vertical axis and along the peripheral tambour of the upper structure where intrusion of light is also articulated. This self-initiated and intuitive ritual, not only captivates worshippers but also help them reconciling the conflicts between needs of their higher souls and their material lives. Hence, this split in the perception of space serves for finding the peace which the religion promises. Therefore, Islamic architecture easily adopted the dome as a perfect response to the essential duality of its system of faith.

Ardalan (1983) suggests that mosque is an archetype which possesses the most charged set of visual symbols. Use of dome in mosques, which is a product of Persian and Anatolian zone, has gradually become the most well-known and understood among the generic components that form the visual language of mosque architecture (Bakhtiar and Ardalan, 1979). Anatolia has appeared as a homogeneous zone in which typology of 'central dome' had evolved and spread through the expansion of the Ottoman Empire. Thus, the following statement could be made; aforementioned dual nature of the complexity of life against the tranquility of the faith demanded a significant morphological transformation in the spatial formation and its expression in places of worship. Therefore, especially the 'central dome typology' was adopted as a response to this crucial need. The principle of height and double-space (i.e. **double-cavity walls**, **double-domes** etc.) also have served the climatic and insulation problems in mosques (Numan, Al-Shaibani, Al-Maziad,1999; Cook, 1999).

The Notion of Height, Typology of Tower and Transformation of Dome

As mentioned above, a sense of verticality was introduced into Islamic religious architecture due to various factors including a conceptual demand for double-space as a response to the increasing duality between complexities of material life and spiritual life. Here, this section starts with the history of accentuation of the issue of 'height' in mosque architecture. It, then, concentrates on the notion of dome and its role in achieving this duality by means of rereading the established references, multiple roles and multiple coding of dome and its use in history. The question of how dome has become associated with Islam can be argued on a broader framework of its relation to social, cultural and political developments, particularly due to the gradual polarization between secular administration and religious affairs.

Bloom (1993) elucidates the notion of 'height' and the idea of 'verticality' in early Islamic architecture. He asserts that Muslim imperial palaces had a feature of a 'green dome' in the 7th and 8th centuries. Interestingly enough, these domes were located in imperial bathrooms or guestrooms rather than places of worship. These domes symbolized the life and the skies of heaven, and therefore, gradually became the celestial dome. These domes were expressions of height both in terms of spatial experience from inside and formal expression from outside. The notion of height was first incorporated into the private spaces of the imperial

palaces of caliphs. Mosques, on the other hand, appeared as modest, simple and plain structures and spaces of worship until the 12th century. Mosques were included in the building complexes of the imperial palaces and benefited from their grandeur until when the caliphs gradually started to become more liberated, secularized and distanced themselves from the divine affairs for public administrative duties. According to Bloom (1993), mosques needed to acquire features to make their presence as the caliphs went more behind the walls of their own palaces. At that point, the well-established symbol of green dome and the well-established architectonic component of dome seem to have emerged as an ideal feature serving that purpose. This occurrence seems to coincide with the aforementioned conceptual demand for transformation of the spatial dimension of religious conception.

The need for a self-expression of mosque that was seemingly abandoned by caliphs and the demand for a split in the spatial perception of earthly and divine within the place of worship prepared the ground for the raise of the notions of height, verticality and double-space in mosque architecture. Thus dome started to become a part of the language of mosque architecture only after the 11th century. Moreover, the typical tall tower palaces of Yemen were also utilized by Muslim invaders as an expression of the new religion and new administration. Thus, the consideration of height and verticality were integral ingredients of mosque architecture. Starting from this transformation onwards, it is possible to observe a more articulated approach in handling of mosque design as a problematic of volumetric configuration rather than a plannimetric matter. This characteristic is exploited in Ottoman mosque architecture to its full extent (Kuran, 1968; Kuban, 1974; Goodwin, 2003).

On another yet parallel line of thought, mosque architecture is argued to be a continuation of pre-Islamic palaces of, particularly, Parthian and Sassanian dynasties of Persia. Its typology is believed to be developed from Abbasid mosques as well as Anatolian central dome mosques which followed a different path from the architectural cultures in other Middle Eastern regions due to various factors such as Mongol influences in Turkish art and architecture to Sufi traditions in Anatolia (Lifchez, 1992; Ozturk, 1988). This point is further discussed below in regard to its impact in the transformation of mosque architecture and emergence of pendentive dome in Balkans through Sufi influences (Trimingham, 1998; Bakhtiar and Ardalan, 1979). Having discussed the philosophical, spatial, material

and climatic aspects of pendentive dome in the context of double-space, the cultural aspects need to be tackled in historical perspective.

Duality between Balkans and Islam

As the second front on which this topic promised to tackle the issue of duality, it is argued, here, that the dichotomy between Europe and Islam has developed its uniquely intricate links to be tied to the very same anchor discussed so far above. Therefore, this section addresses the issues of religious and political history to reveal not only the conflicts between East and West but also the means to mediate the polarities by referring to cultural aspects. This section also addresses, on a parallel line, the influence of Ottoman Empire and its culture, particularly literature and architecture in Balkans (Figure 3) with particular reference to the typology of mosque and its unique evolution among other cultural territories of Islamic influence. Along this purpose, it follows the path through which the evolution of mosque from its origins, its variations throughout different geographical zones in which Islam has spread along the centuries. The development of central dome mosque plans in Ottoman era and Anatolian zone, eventually its transformation and adaptation to European context with reference to mosque architecture in Balkans are scrutinized. Having taken the mediating role (Lapidus, 1992) of Anatolian Sufism between the extremities of West and East (Norris, 1993) into the heart of discussion, the infiltration of multiple input and diversified flavours towards a hybridization and synthesis of Islam and its cultural products including architecture are argued from the viewpoint of existing external and internal dual forces acting upon these phenomena.

In fact, there had been various demographic movements, and in particular, massive migrations from Anatolia, following the incorporation of southern Balkans into the Ottoman Empire during the latter half of the 14th century. Naturally there occurred a sudden and significant need for Islamic buildings in profound amounts. These large scale migrations, emigrations and displacements have caused previously cohesive Muslim communities to become widely scattered (Holod and Khan, 1997) throughout the Islamic empire. A strong indicator of re-establishing order and cohesion had been the construction of mosques for the central administration to maintain the order on the new peripheries conquered in Balkans by the Ottomans (Figure 4).

Figure 3.
Tombul Mosque in Shumen, Bulgaria from an influence of Ottoman Empire and its culture

Figure 4.
Mustafa Pasha Mosque in Skopje, Macedonia

Evolution of Mosque Architecture and its Journey to Europe

The utilization of the typology of mosque as a visual and spatial instrument that ties all these displaced communities back to their origins towards a successful administration, governance and an easier control of the expanded territories and their diversified people, necessitated the deployment of delicate mechanisms and multifaceted sociocultural tactics. In addition to the judicious understanding of sensitivities and critical thresholds, the roots of possible links, shared ingredients, familiarities, soft points and common grounds had to be effectively deployed so as to accomplish the intended compatibility between newly acquired territories and the age-old and distant origins.

The Ottoman emperors (sultans), intellectual elite and opinion leaders of mainstream populace were quite successful in reading the rich cultural material they hitherto accumulated through their age-long journey which had started from the steppes of Central Asia reaching finally to Europe. Although Artun (2007) claims that the contact of Turks with Balkans dates back long before the Ottoman era, in fact to 4th century, and Turkish settlement in Balkans can be traced back to 6th century, the major relationship between Turkish culture and Balkans was established during the rule of Grand Seljuk and Anatolian Seljuk Empires in Anatolia (Ocalan, 2001). However, the major impact was made during the expansion of Ottoman Empire around the 13th century into the South-Eastern Europe through Balkans. For over 500 years a substantial portion of Southeast Europe was an integral part of the Islamic world and shared its cultural, economic and political life.

Impact of Ottoman Culture on Balkan Region

During this period, Ottoman authorities intended to establish a well-rooted bondage through various political, urban and demographical operations. However, these interventions had to be accompanied and supported with a comprehensive cultural programme. Along this goal, initially the existing contacts were reviewed. As previously mentioned, there was, according to Artun (2001), an already established Turkish culture that played a significant role in its ethnic, social and cultural formation prior to the domination of Ottoman Empire in the Balkan region. Nomadic Turcoman *yoruks* who fled from Moghul pressures were also welcomed by the Ottomans and they were settled along with other people

from Anatolia into the newly occupied lands in Balkans, particularly in Thrace. Inalcik (1999: 64) suggests that these demographical operations were the initial steps in making the existence of Ottomans in Balkans permanent. Due to the strategic urbanization policies of Ottoman Empire, some of the Balkan cities not only were founded and existed but also became among the largest cities of the whole Muslim Empire (Kiel, 1990: ix). Sarajevo, Banja Luka, Mostar (Figure 5) or Tirana, Elbazan or Korca and some other smaller yet important towns like Didymoteichon and Giannitsa can be named among these cities.

Hence, Ottoman imperial system had started to be implemented, on the one hand via politics of urbanization. On the other hand, aforementioned programme of cultural integration had been a multifaceted process. Ottoman civilization contained three major sources of cultural milieu to be utilized in implementing this programme to prepare and reinforce the politico-religious intervention. These components could be classified as pre-Islamic heritage, Turcomanic customs as well as teachings of Sufism. Moreover, institutional structures such as *waqfs* (public welfare foundations) and *akhi* organizations (professional and commercial guild systems), which were also associated or affiliated with various religious sects and their schools of thought, acted as a catalyst in implementing this macro-programme.
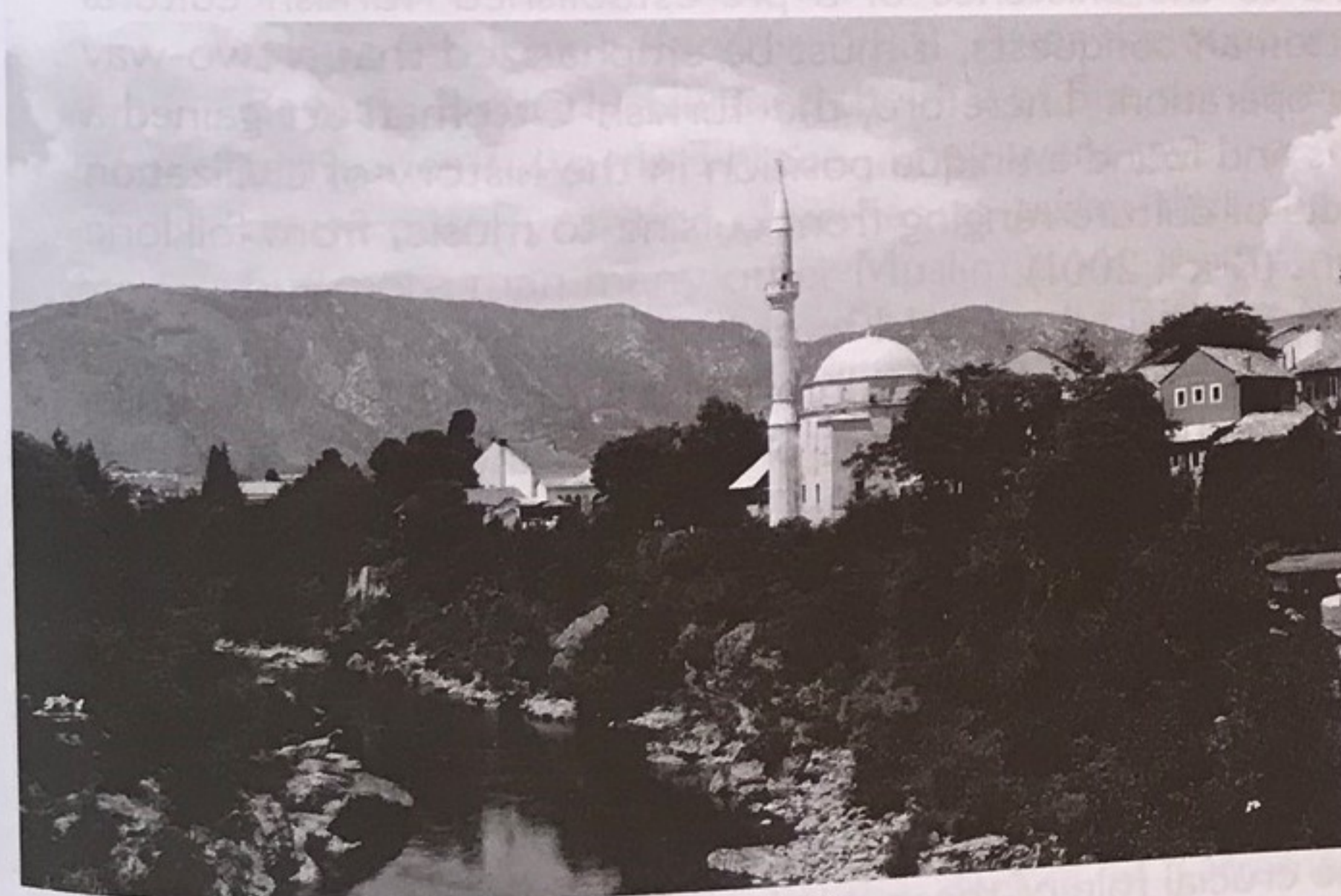

Figure 5.
Koski Mehmed Pasha Mosque in Mostar, Bosnia Herzegovina

Firstly, the pre-Islamic background embedded in the cultural genetic codes of Ottoman Empire was one of the strongest devices in grafting and spreading the relatively shortly-acquired Muslim culture and its artifacts into a non-Muslim context. Despite a pre-established Turkish cultural foundation in Balkans, what had been brought from Anatolia and Western Asia or Middle East during a period from 6th to 13th century was mostly secular or Pagan and Shamanic traditions of Middle Asia and pre-Islamic Anatolia. The new urban and architectural morphology was influenced from what was already existing as much as what is brought from Anatolia. In that regard, Pinon (1999) suggests that urban architectural forms of Balkan cities, particularly towards the end of 18th and 19th centuries, reflect much earlier forms.

Secondly, the multiculturality of the Turkish civilization, which itself is neither homogenous nor intrinsically inconsistent, was another strong aspect of Ottoman empire in its goal of integrating with European context. Therefore, Turkish customs and folklore found a fertile ground to be cultivated in Balkans. Although Castellan (1992), referring to Rumanian historians like Beldiceanu, suggests that people in Balkans used to live a lifestyle that could be clearly named as Turkish regardless of their ethnicity, language and religion, it was grafted mainly after the 13th and 14th centuries. Considering the point, as mentioned above, that Artun (2007) raises in regard to the existence of a pre-established Turkish cultural foundation prior to Ottoman conquests, it must be emphasized that a two-way interaction must be in operation. Therefore, the Turkish-Ottoman art gained a new identity in Balkans and found a unique position in the history of civilization through multiple aspects of culture ranging from cuisine to music, from folkloric dances to textile designs (Birol, 2001).

Artun (2007) emphasizes the role of architecture, particularly mosque architecture, among these cultural products. Nonetheless, the role of literature and local poets (asik) brought from Anatolia cannot be underestimated particularly paving the ground for a major, yet gradual, cultural transformation. The impact was to such an extent that majority of Ottoman literary work happened to be produced in Balkans since the 15th century (Isen, 2003). The significance of the literary work as well as oral culture lies in the fact that they were directly related to various sects and their schools which were influential in spreading not only the religion but also all its institutions and culture. Thus, it is of interest to know the crucial role of these religious schools (tekke) which were headed by the leaders (sheikh) of certain religious sects (mezhep).

Thirdly, therefore, the Sufism, the most influential among many other religious sects, appears as one of the key cultural devices to implement the macro-Ottoman-Islamic expansion strategies due to various reasons that coincided with the existing socio-political conjuncture at the time. In other words, the programme of the empire. Sufi traditions seemed convenient to adopt in the timing in history, theosophy, philosophy and methodology of Sufism matched with the above-discussed conceptual transformation in regard to the need for double-space as a response to duality between materiality of life and spirituality of religious belief. Besides, the theological sources from which Sufism nourished were the key elements in cementing diverse aspects of a society (Trimingham, 1998) that was to be established in Balkans.

By the same token, Sufism was politically one of the best institutions to ally with in reaching larger masses since Sufi leaders were holding the pulse of public very well, simply because they were living a very simple life as the majority of populace. In that sense, they were very powerful to an extent that the anarchical independence of Turcoman beys (Lapidus, 1992) caused many clashes and riots against the empire in history. That is why governments used to keep good relations with Sufis. Sufism was previously tried in history and proved to be successful in the introduction of Islam to Anatolia in the 9th and 10th centuries. Therefore, Sufism has surfaced among other religious sects and schools of religious thinking (Norris, 1993). After the conquest of Istanbul, Mehmed II and Beyazid II clearly affirmed the role of Sufi dervishes in acquiring and settling new territories towards Thrace. They were given permission for the conversion of numerous Byzantine churches to *tekkes* that had spread to all Balkans. Alike, but more than many other Muslim lands, the historical role that the Sufi *tarikats* played in the propagation of Islam in the Balkans cannot be undermined.

It would not be unfair to claim that the implantation of Islamic civilization could not have been possible without the efforts of these Sufi *sheikhs* and their orders. The influence of Sufism can still be felt at both the popular and academic levels among the Balkan Muslim population. The close ties between the central administration and Sufi *tarikats* continued until Mahmud II's persecution of **Bektashi** order in 1826 because of their threatening influence on Janissaries. Janissaries are soldiers in an elite Turkish guard organized in the 14th century and abolished in 1826. Since then they were cut off both from Balkans and governments resulting in the decline of Ottoman power over its own large

territories. Following the point on which ties of the periphery was cut with Ottoman centre, and particularly with Sufism in the early 19th century, the decline of the control not only over this particular geography but also over the whole territories of the empire became more evident.

The result was the loss of heritage not only of Ottoman past but also of local attributes. The Ottoman expansion policies, no matter how much imperial they could have been, had targeted unity. In doing so, similarities and common grounds were explored in a very elaborate and sophisticated manner. Although Sufism, whose meaning was defined between 7th and 11th centuries (end of which is the period caliphs started to appropriate a secular attitude) as religious fulfilment and spiritual transcendence, has its origins both in the teachings of Quran and Prophet Muhammad (pbuh), and in the influence of non-Islamic mysticism. It can also be described as a drive to realize the most profound human potentialities through emotional, mystical and ecstatic experience of contemplation and religious rituals.

What relates Sufism to the subject matter of pendentive dome mosque architecture lies in Sufi theological quest for surpassing the duality of self being and divine being. The ultimate goal of Sufi teaching is a lifetime endeavour for the triumph of the true self over the divided and conflicting selves. Lapidus (1992: 15), referring to eastern philosophers, put forward that the essence of Sufi teaching is to reach peace of mind, clarity of vision, harmony with inner intentions and outer actions. Sufism explains the hierarchy of existence as levels of consciousness between the material life and divine essence (Trimingham, 1998). The aim is to reach that level of unity.

On a special note here in regard to mosque architecture, its spatial qualities and its conceptual references, not only architects and patrons but also majorities of popular and academic literatures as well as scholarly circles emphasize the concept of 'unity' in reading the architectural space of mosques. When perceived from a Sufi perspective, however, although the goal may be the divine unity, the starting point of self-contemplation or beginning of the transcendence process is the ultimate duality itself. Thus, any rereading of architectural space should start with the inquiry of duality in space particularly in a case, like pendentive dome mosque architecture in Balkans, cultural sources of which are mainly conditioned by Sufi traditions of Islam.

Therefore, the argument here is that the emphasis on unity, which hitherto has been well-discussed, seems to have been misunderstood. It may be the intended result but the actual contemplative process is not only becoming aware of this duality but also the purification, re-combination and perhaps the elimination of duality. Therefore, the timing in history, theosophy, philosophy and methodology of Sufism matches not only with the aforementioned conceptual transformation in regard to the need for double-space as a response to dichotomy between material and spiritual but also with the need to resolve the conflict between West and East.

Going back to the salient qualities of Sufism, intellectual foundations of which were based upon the epic poetry by Jalal ad-Din Rumi (1207–1273) and Haci Bektash Veli (1248–1337), simplicity, openness, and synthetical character could be highlighted because they also have major influence on the morphology and expression of architectural language of buildings related to Sufism. **Regarding simplicity**, it must be emphasized that the Sufi teaching stipulates the redemption from the needs and desires of the 'material self' to be able to reach the 'inner and divine self'. Along the purpose of surpassing this divine dialectic, devoted Sufi followers used to live on the principles of poverty, celibacy, retreat, ethical self-control towards some form of asceticism, rejecting body and materialism. **Regarding openness**, the intrinsic heterodox openness of Sufism, versus orthodoxy of Sunnism must be accentuated. Therefore, Mevlevi order, which is known for its welcoming and forgiving theosophy, had become the face of Sufism to outside world. Their worldview that was based on bare essentials and nothing else provided them the maximum level of flexibility instead of religious conservatism.

Regarding synthetical character, the sources of Sufism, which flourished outside Anatolia, mainly in Persian and Indian cultures, were transmitted to Anatolia through migrations of Turcoman tribes. They, who used to be shamanistic people at home on the steppes of Central Asia (Isen, 2003), were still attached to tribal customs and holy man (Norris, 1993, Lifchez, 1992) that are influenced by the cultures and religions of Buddhism, Manichaeism, Nestorian Christianity as well as Paganism. Sufi belief, which has derived many principles from Turcoman customs, based their teachings on the amalgam of these cultures and religions. Particularly, Bektashi *tekke* successfully synthesized Sunni and Syiah beliefs and Muslim and Christian beliefs and practices (Lapidus, 1992: 28).

Finally, it is important to evaluate the influences of Sufi principles on the characteristics of architectural forms and spaces particularly in their own *tekkes* and mosques. Typology of *tekke* buildings stands as middle ground between imperial and civil architecture. Goodwin (1992) asserts that they consist of a prayer hall, a closed (domed) court around which rooms for travelers are located and a portico that was the centre of social life in bitter winter. Also, *zaviye* mosques, which according to Goodwin (1992) are creation of the Ottoman Sufis, consist of a prayer hall as well as very small rooms for *akhis* serving as hostels. The fact that *mihrab* niches are not always on the central axis of the main space in these buildings may imply that the aforementioned duality between urban context and Makkah direction is resolved in the interior shell of the space rather than external form.

It seems that the closed central courts gradually have become open-sided *iwans* of which were the tiny retiring rooms with complete niches and *ocaks*. These mosques have later started to be built together with *madrasahs* sharing a common courtyard. In some special cases like Hudavendigar Mosque in Bursa from the 14th century, central-domed court needs to be of double-storey height since the building accommodates *madrasah* rooms on both floors. Here, the use of verticality in interior space, which is discussed earlier as a paradigm shift, must be accentuated both as an expression of duality between two different functions and as an associated split in the perception between two different activities. Regarding this very point, Lifchez (1992: 73) draws our attention also to institutional duality between *madrasah* and mosque. In fact, all these articulations are performed along the height of the central space covered with dome. The issues of both height and its manifestation as dome are discussed above. Bakhtiar and Ardalan (1979) clearly defines dome as a Sufi element and suggests that typology of dome in mosque is derived from Persian zone through Sufi channels and developed in Anatolia into the central-domed mosque typology. It is then fair to suggest that it is transmitted to Balkans via Ottoman expansions.

Having discussed the positive impacts of Ottoman culture in the propagation of Islam, it is now of interest to elucidate what impact it made on the existing culture in Balkans to be able to comprehend the other dimensions of the interaction. Whilst Islamic art was being propagated on one hand, Ottoman colonization, as Kiel (1990: x–2) defines it, was causing, on the other hand, a deliberate elimination of local aristocracy, thus patronage of Balkan Christian art. What Kiel calls as colonization is defined by Pinon (2008) as Ottomanization over a

Byzantian base. Obviously, this massive transformation was not totally a smooth process despite the substantial efforts of *Sufis*, *Akhis* and *waqfs*. The fusion was turning into confusion resulting in an anarchic layout in these European cities.

In addition to the three cultural components that the Ottoman Empire based its political and urban policies on, there are supplementary institutional factors *waqf* and *akhi* institutions in transforming the social and physical setting. The system of *waqf* had played a major role in the spreading and development of Turkish and Islamic cultures (Artun, 2001). The *waqf* institutions which had sufficient resources provided significant services and support in the fields of education and culture, particularly in arts and crafts. The system of *waqf*, which was also associated or affiliated with *tarikats* and *tekkes*, and mainly those of Sufis, and its success (Kiel, 1990: xii–24 and Zlatar, 1981), were very much in parallel with the role of *akhi* organizations (Kiel, 1990: xiv–138a). These two interrelated institutions manifested their contribution in the patronage of mosques (Kiel, 1990: xii) which had a two-sided impact: the production of a Muslim artifact (or edifice) on one side and employment of Muslim workers and craftsman (and their families) brought from Anatolia to Balkans on the other side.

At this point it is of interest to know how architectural styles are influenced from each other. Kiel's (1990) comprehensive work, which also refers to essential bibliography on the matter such as Aslanapa (1949), Ayverdi (1979) and Inalcik (1993), gives a good account of Ottoman architecture in Balkans. According to him, the early periods of Ottoman existence in Balkans allowed some level of local input, and since then it was only nourished from Anatolian sources. However, the oldest examples and origins of Ottoman architecture could be seen in the remains of the places like Thrace (Kiel, 1990: xiv–118). A new type of Islamic architecture emerged in the aforementioned new towns of the Ottoman Balkans. The traces of both Islamic past and the experience of Seljuk and Asia Minor could be clearly seen in these places. Kiel (1990: ix) attributes this similarity to the fact that the first architects of the Balkans were recruited from these regions in Anatolia.

In regard to this new type of architecture, it would be appropriate to say that the requirement was architecture with simple but monumental forms, systematic organization in plan and ease of construction particularly under the impact of increasing demand for Islamic buildings. The utilitarian buildings quickly evolved into a unique style with their own code of aesthetics until the mid-15th century.

Buildings with religious functions were much smaller in size than utilitarian buildings like *bedesten*, *arasta*, *caravanserai* and bridges, aqueducts etc. (Kiel, 1990: x). Thus, construction of mosques had been the major architectural activity to sustain propagation of Islam in terms of both ideology and practice of everyday life. As a matter of fact, this cultural instrument was used not only by Ottomans. Holod and Khan (1997: 11) suggest that previously avowed secularist and socialist regimes, such as Yugoslavia, too, saw the construction of mosques as an extension of social control and political manipulation. Even, by the early 1990s, groups vying for power have utilized mosque as a symbolic marker and ideological space for the propagation of traditionalist and Islamic thinking. Hence, it is now of interest to know, in the following section, what spatial characteristic these building types did have to help the resolution of the diversity of conflicts argued throughout this topic.

Double-Coding and Double-Spaces as Means for the Resolution of Conflicts between the East and the West

As discussed above, Balkan society and its culture were facing both the impact of what existed in addition to that of what was injected into its organism. Pinon (2008) defines this issue as 'centre-periphery duality' in regard to the Ottoman cities in the Balkans. Thus, a strategy of double-coding seems to have been developed to absorb the dual effects of both an existing architecture that culturally resists for remaining as an edifice of collective memory on the one hand, and a new typology intending to adapt itself as new symbol and agent of social transformation on the other hand. As a result, the notion of double-space, as a product of the strategy of double-coding to reconcile abrupt conflicts, seems to had been emerged as a hybrid instrument that manifested itself first and mostly in pendentive dome mosque typology where the clashes were felt the most at the peak of cultural and political confrontation from early 13th to late 18th century. Kiel (1990: ix) suggests that local Byzantino-Slavic styles of the Balkans had also their influence on the Ottoman architecture of the new towns in Balkans. He uses the term 'fusion' for this interaction (Kiel, 1990: x–1{19}) which definitely laid the foundations of aforementioned double-coding.

In regard to Pinon's (2008) argument about 'centre-periphery duality' in the Balkans, Kiel (1990: x) highlights the issues of **scale** and **decoration** and

suggests that monumental, glorious imperial buildings were not erected here since capital cities of the empire were outside the (Balkan) region. Also, local Bogomil traditions of avoiding luxury (Kiel, 1990: xi–416) must have made an impact on the emerging simplicity of architecture. Be that as it may, pragmatic spirit of Ottomans, which developed the notion of 'beauty of usefulness' must have had also significant role in this outcome. The simple and surveyable forms are utilized in majority of buildings whereas decorated elements concentrated only in few places. Again, Kiel's (1990: x–1{19}) emphasis on the existence of a school of non-monumental local artistic trend supports this view.

From another perspective, Artun's (2007) view that Turkish reign in Balkans was a missionary (which was conducted mainly by Sufi *tekkes* and *tarikats*) expression beyond a mere imperial relationship also provides further explanation for the preference of this simple and utilitarian language rather than an imperial expression in architecture. Regardless of its sources, the simplicity of new Ottoman architecture in Balkans is an outcome of the fusion between central and local languages. Thus, a flavour of localness in this new architecture could easily be sensed (Kiel, 1990: x–4). In addition to the use of local cloisonne *(casement)* masonry (Kiel, 1990: x–2{20}), or to the use of small stone techniques of Dalmation (Kiel, 1990: xiv–124) in combination with Ottoman plannimetric typologies, various references to church architecture (also inspired by their conversions into *tekkes* ordered by the Ottoman sultans) prove the genuine interest in the ethnic tastes (particularly of Macedonia and Bosnia), existing physical context and heritage at the early stages of this cultural infiltration.

Having emphasized local influences, the new architecture in Balkans clearly reflects, according to Kiel (1990: ix), the characteristics of Ottoman state too. In other words, the formal and stylistic language of Ottoman architecture in Balkan region reflects the imperial vision of the state, yet, with the pragmatic outlook as well as the centralized and hierarchical nature of the architecture. In supporting this view, he stresses the dominating importance of the use of dome, and draws our attention to the use of half domes particularly on pendentives (Kiel, 1990: x–3). Nonetheless, the unique characteristics of the pendentive dome as well as the traces of the simplicity of *tekke* and *zaviye*-mosque architectures (Lifchez, 1992: 75–80) should be taken into consideration as much as the dominance of dome in Ottoman architecture in Balkans to reach to a fair and final judgment.

As can be clearly seen, dual forces and influences condition the architectural morphology and style in Balkans. Ottoman progressive trends and reactionary conservatism of Balkans constitute the primary binary pressures that necessitated a clear need for a double-coding strategy to overcome the duality (Kiel, 1990: xi, 412–415). Aforementioned two tracks, namely intrinsic duality of mosque and the duality between East and West, are clearly intertwined towards unveiling the links between historical, political, economic, social, spiritual, cultural, geographical, climatical, functional and material aspects of life reflected upon architecture with specific reference to the design of mosques as social symbols and signs.

CONCLUSION

Consequently, the notion double-space, seems not only to constitute the very essence of the use of pendentive dome in mosque architecture of Balkans, but also to have accumulated many layers of sociocultural complexity throughout its evolution in Ottoman era as a sophisticated strategic device to resolve the multifaceted conflicts that have emerged along the process of Islamic expansion, propagation and integration. Throughout this topic, the issue of double-space is tackled on two fronts. One of these fronts is the duality within mosque itself, whereas the second is the duality between Balkans and Islam, or the West and the East. These two tracks of inquiry are interlinked proving that the double-space, as a product of the strategy of double-coding to reconcile abrupt conflicts, is a well-planned hybrid instrument that manifested itself first and mostly in pendentive dome typology where the clashes were felt the most at the peak of cultural and political confrontation from early 13th to late 18th century.

In summary, it is discussed, throughout this topic, that pendentive dome, as an architectural element, has both served to mediate in between immaterial and material polarities and to reconcile the socio-political conflicts that South-Eastern Europe, namely Balkans, were faced with through the expansion of Ottoman Empire and spread of Islam. The political drives, cultural mechanisms, agents of the Islamic propagation through expansion of Ottoman Empire into Balkan region of Europe, the process of the spatial evolution of mosques are explored and their spatial characteristics are analysed to comprehend the role of space,

its duplication and double-coding in the resolution of multifaceted conflicts and dichotomies. Consequently, the pendentive dome, emerges as a manifestation of double-space in mosque architecture and represents the tectonic response to the predicament of spatial duality as an expression of intrinsic ontological, functional, cultural and ecological dilemmas inherent particularly in Islamic architecture.

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