

CHAPTER 8

OTTOMAN RENAISSANCE

8.1 Islam and the Renaissance

The most important of Islamic contributions to the Renaissance is generally identified to have come by way of the translation of the philosophical works of al-Kindi, al-Fārābī, Avicenna, Averroes, and Ibn Tufayl from Arabic to Latin. These authors were a common feature in the philosophical works of the Renaissance. The translation movement in the West of the works of the Islamic philosophers began around the eleventh century and “reach[ed] their peak of influence as late as the fifteenth and sixteenth century.”⁷¹⁷ The most influential and famous of the Islamic philosophers to have had reception in the West was Averroes, whose “exposition of Aristotle had an overwhelming influence [...] in particular at the University of Padua, the most important center of philosophical study in Europe during the Renaissance.”⁷¹⁸

Influences of Islamic and Arabic sources can also be seen in the works connected to the Renaissance interest in alchemy and Hermeticism. For example Pico della Mirandola in his *Oration on the Dignity of Man* starts his book by referring to a certain Abdul the Saracen, who claimed that there was nothing that was created “more wonderful than man,” which he says is in agreement with Hermes Trismegistus.⁷¹⁹ Della Mirandola also claims to have studied Arabic. Francesco Colonna’s *Hypnerotomachia Poliphili* (*The Strife of Love in a Dream*), a poetic tale of architecture published in the 1499, yet another work identified with magic and alchemy, presents in one of its woodcut illustrations “what are the first Arabic passages in the history of European publishing.”⁷²⁰ The Arabic words forms as part of multi-lingual signages to the three portals, where it is presented together with the languages that define the Judeo-Christian and Western traditions: Hebrew, Greek, and Latin (Fig 8.1).

⁷¹⁷ Hasse 2007, 113.

⁷¹⁸ Ibid., 114.

⁷¹⁹ della Mirandola 1998, 3.

⁷²⁰ Lefaivre 2005, 14.

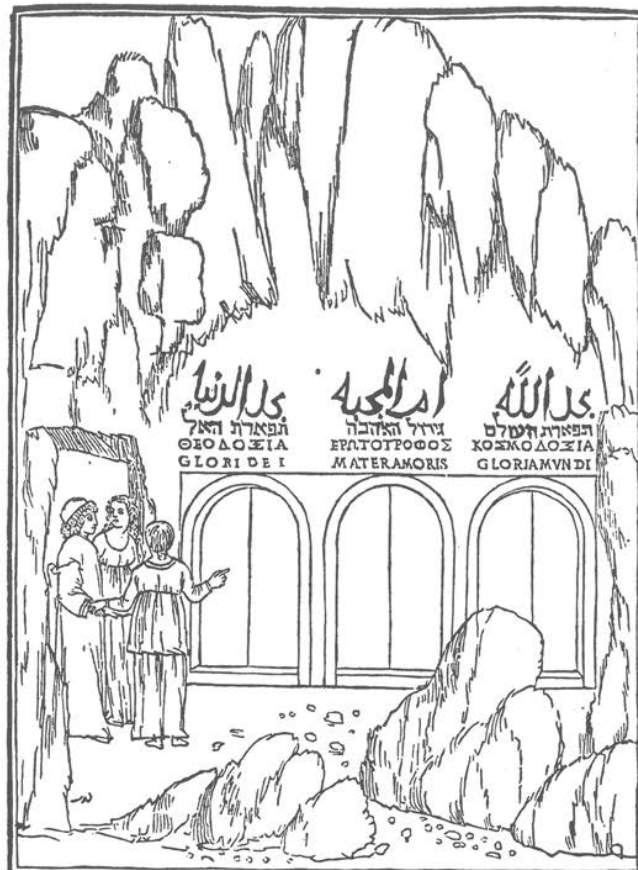


Fig. 8.1 Polyphilo in front of “the three brazen portals, crudely hacked into the living rock: an ancient work of incredible antiquity.” The arrangement of the words from top to bottom is as follows: Arabic, Hebrew, Greek and Latin. The Arabic translation though is not accurate, with the text on the left portal meant for the right portal and vice versa. (Source: Colonna 1999, 138.)

Hans Belting in his recent study has identified the study of optics by the Iraqi mathematician Ibn al-Haytham (d. 1040), who came to be known in the West as Alhazen, being an important resource for artists and architects in the Renaissance. Alhazen’s book, *Kitāb al-Manāẓir* (*The Book of Optics*) presented “a new basis for the ancient Greek theory of vision” and he went on to prove with his “experiments that rays of light could be calculated mathematically.”⁷²¹ Alhazen’s optical theories, which were widely read in the West, Belting contends “laid the foundations for the model of linear perspective in the Renaissance.”⁷²²

⁷²¹ Belting 2011, 92.

⁷²² Ibid., 94.

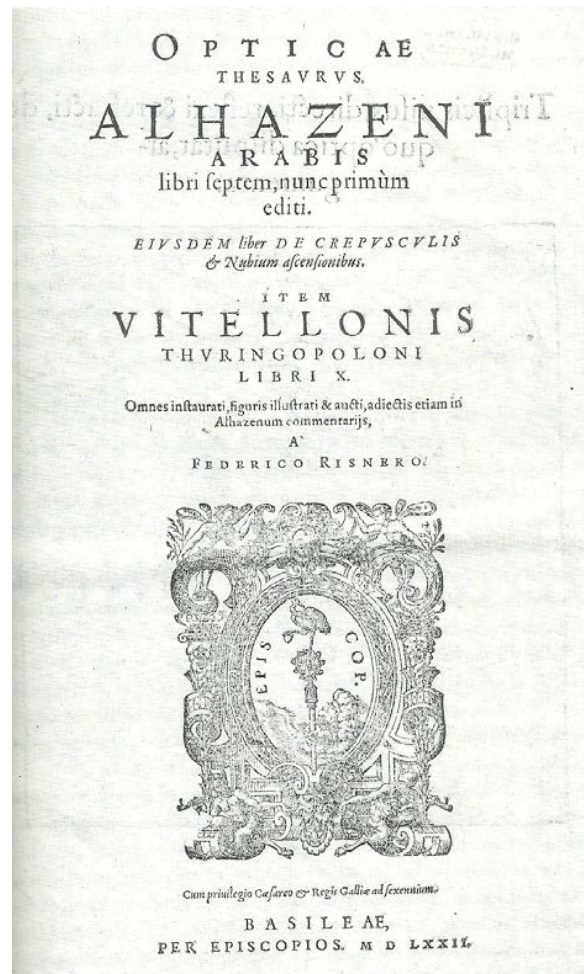


Fig. 8.2 Title page of the Latin translation of Alhazen's *Book on Optics*. Alhazen is credited to have been an important intellectual resource for Renaissance artists especially in constructing perspective drawings. (Source: Belting 2011, 93.)

The most robust interaction between the Islamic world and the West during the fifteenth to the seventeenth centuries can be said to have coincided with the conquest of Byzantine by the Ottomans, for this saw them at the doorstep of Western Europe. The economic and cultural cooperation between Venice and the Ottomans allowed for artistic and architectural exchanges including the transmission of Vitruvius' *De Architectura* to be made available in the Islamic world.⁷²³

⁷²³ For art and architectural exchanges between Venice and Turkey see Howard 2003, 306–325; Necipoğlu 1989, 401–427; Necipoğlu 2011, 77–92 and 98–102.

The Ottoman Renaissance

The sixteenth and the seventeenth centuries in the Islamic world see the Ottomans establishing themselves as a world power. The march of the Ottomans from a small town in Anatolia beginning from the late thirteenth century sees them conquering much of Christian Byzantium. The climax of this march finds them taking over the symbolic remnant of the Roman Empire, the city of Constantinople, in 1453. Thus they established Islamic rule over what once served as the “patriarchal seat of Eastern Christendom for nearly a millennium.”⁷²⁴ The Ottomans saw their arrival and overcoming of Constantinople as a victory of Islam over Christianity, one prophesized by the Prophet Muḥammad himself: “One day Constantinople will certainly be conquered. A good emir and a good army will be able to accomplish it.”⁷²⁵

With the wealth that was accrued through their conquests, each Ottoman sultan sought to mark his reign with an impressive array of architectural works. The Ottoman march left its stamp of authority both politically and architecturally on the cities it conquered. They established mosques, Islamic schools (*medrese*), lodgings for sufis (*zaviyes*) and bathhouses.⁷²⁶ Architecturally speaking, arriving at Constantinople drew the Ottomans close to the remarkable developments of the Italian Renaissance and also granted them access to perhaps the most venerable building of Christendom, the Hagia Sophia. The enthusiasm that was felt towards art and architecture in Italy around the same time was also somewhat mirrored in the development of Constantinople by the newly established Muslim rulers. The Ottomans wanted to concretize the Islamic presence of Constantinople by embarking on an ambitious building project that consisted of multiple community mosques, large Friday mosque complexes, and other religious structures.

While there was much tension between the West and the Ottomans, a healthy cultural exchange existed especially between the new rulers at Constantinople and Venice. Ideas, including that of architecture flowed from both sides. For example Mehmed II, the Ottoman conqueror of Constantinople, was well educated in Western Humanism.⁷²⁷ Subsequent Ottoman sultans it seems were also well apprised of

⁷²⁴ Necipoğlu in Mark and Cakmak (eds.) 1992, 195.

⁷²⁵ Ibid., 48.

⁷²⁶ On a summary of the various influences that informed eventual Ottoman mosque designs that was codified under Sinan in the sixteenth century see Goodwin 2003, 15–33.

⁷²⁷ Raby 1982, 4–5.

architectural developments in Italy and even sought—amongst others—Michelangelo and Leonardo da Vinci to submit design proposals.⁷²⁸ The Latin manuscript of Vitruvius' *De Architectura* was gifted to the Ottomans around the early sixteenth century.⁷²⁹ As Necipoğlu has postulated, the knowledge of Italian architectural treatises of Filarete and perhaps even Alberti's were known in Ottoman courts during the period when Mehmed II was in power and when the mosque-complex dedicated to him was being built.⁷³⁰

Such conversations though were not merely one way in which “knowledge in Europe about Ottoman architecture [being] spread by oral and written travel accounts, as well as drawings and prints of monuments made by artists who accompanied embassies.”⁷³¹ It has been suggested that Filarete was someone who may have participated in such early cross-cultural architectural exchanges. For example as Hub has shown in his “Filarete and the East,” Filarete's various proposals for his ideal city of Sforzinda draws architectural sensibilities from the Islamic world especially in the use of minarets (Fig. 8.3).⁷³² Filarete is also reported to have told his close friend, the humanist Fielfo, that he intended to visit Constantinople around 1465.⁷³³ Given the similarities between his proposals for the Ospedale Maggiore as described in the *Trattato Di Architettura* and the Mehmed II complex, Necipoğlu citing Restle, offers the view that he may have been involved in that project.⁷³⁴ Raby goes so far as to claim that Mehmed “converted Filarete's theoretical musings about star shaped fortresses into reality [by building within twelve years] four major fortresses in or around Istanbul.”⁷³⁵

⁷²⁸ Necipoğlu 2011, 88. The cultural influence of the Italian Renaissance during the era of Mehmed II is said to have reached such levels to provoke censure from Islamic religious leaders who saw it posing a threat to the Islamic way of life in the sultanate. Goodwin 2003, 102.

⁷²⁹ This manuscript was a gift by the Duke of Milan to Suleyman “after the conquest of Buda in 1526.” Necipoğlu 2011, 102.

⁷³⁰ Necipoğlu draws attention to similarities between the bilateral symmetry of the Mehmet II complex raised upon a large platform to the proposed design for the Ospedale Maggiore in Filarete's *Trattato Di Architettura*. She also finds resonances between the call by Alberti in his *De Re Aedificatoria* for the “principal temple of a city [to be] centralized in plan, isolated in the centre of an ample square, and raised on a podium,” and the Mehmet II complex. Ibid., 86-88.

⁷³¹ Ibid., 2011, 98. See also Kuban 2010, 245–247.

⁷³² Hub 2011, 27–28.

⁷³³ Necipoğlu 2011, 86; Giordano in Hart and Hicks (eds.) 1998, 52.

⁷³⁴ Necipoğlu-Kafadar 1986, 233–234, and n.18; Raby 1982, 7.

⁷³⁵ Raby 1982, 7

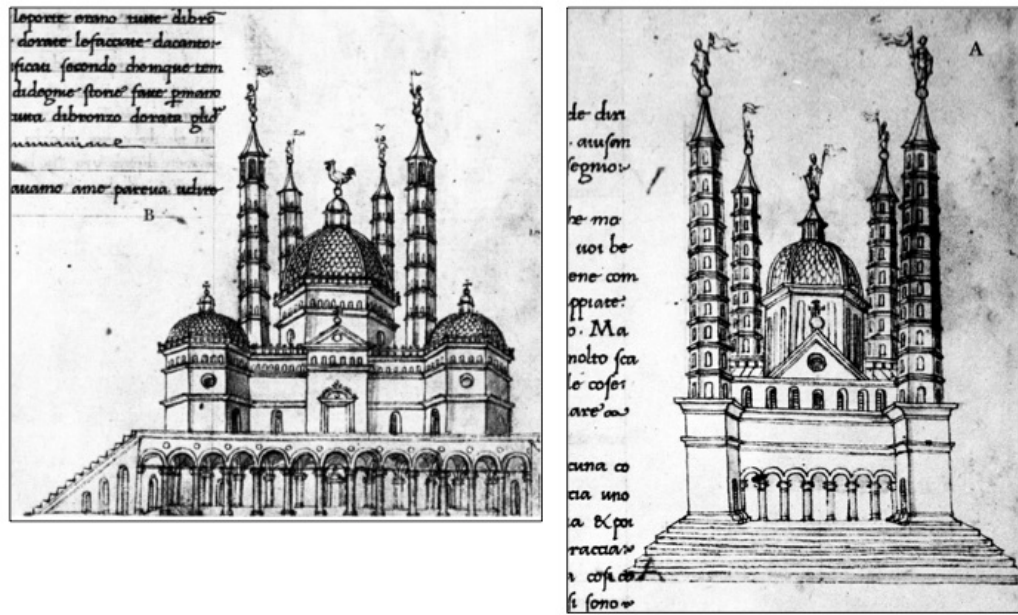


Fig. 8.3 Filarete's use of "minarets" for example in his proposals such as the Cathedral of Sforzinda (left) and the Temple of Plusiapolis are said to have been inspired by mosque architecture in the Islamic East, accounts of it he may have heard during his frequent travels to Venice.
(Source: Hub 2011, 28)

By the early sixteenth century the Ottomans' reliance on foreign architects declined with the emergence of the most famous architect of the Ottoman era, Sinan.⁷³⁶ Yusuf Sinan bin Abdullah was a janissary soldier who rose up the ranks to become the Ottoman chief architect at the age of forty-six, a position he held on for fifty years until his death. During his tenure in the army Sinan was appointed an engineer, and this allowed him to put his training in geometry and carpentry to good use. The various army expeditions he participated in also gave him a very good opportunity to understand various building styles and construction techniques. Sinan was a truly prolific architect who was commissioned to design close to seven hundred projects ranging from grand Friday mosques, palaces, and mausoleums to bridges and bathhouses.⁷³⁷

Sinan and the Education of the Architect

As the chief architect of the Ottoman Empire, Sinan had access to the manuscripts of Vitruvius and other Renaissance treatises found in the court libraries.⁷³⁸ But unlike his

⁷³⁶ See for example Necipoğlu 2011, 13–23.

⁷³⁷ Ibid., 136–137.

⁷³⁸ Ibid., 87 and 146.

Western counterparts, he did not embark on writing a comprehensive treatise on architecture. There was also no venture to advise the Sultan on how to build a good city or a manual on construction or project management in the manner of Filarete. What Sinan did bequeath to us was somewhat different. He chose to leave behind his autobiography. Thus in place of a formal treatise of architecture Sinan commissioned his close friend, the poet and painter, Mustafa Sa‘i Çelebi (d. 1596) to pen down his life story as an architect. This work is unique as it presents a glimpse into an Islamic theory of architecture. Sa‘i’s work has come down to us as five accounts, with the longest work being the *Tezkiretü’l-Bünyân (Record of Construction)*.⁷³⁹

Sinan’s biography, appropriately, centres on the protagonist, the architect, his training, and most importantly his enormous contributions—both in architecture and military—to the empire. In the work, Sinan is portrayed as a truly unique genius. This was not only because he built many buildings but also that the architect seemed to have been elected by Providence to build mosques with awe-inspiring domes. Sinan also claims, rather confidently, that his mosques were a re-creation of Paradise, here on earth. In this manner Sinan joins the likes of Avicenna, al-Ghazālī, and al-Suhrawardī, philosophers and sages who granted a preview of the illuminated abode of the afterlife as a way to motivate the faithful to practice a life of wisdom and virtue. While those philosophers and Sufi sages presented the paradisaical destination in literary form, here we have Sinan who is ready to realize them as built forms, so that it can be physically experienced.

Sinan reveals that the mastery of geometry as being pivotal to the art of building. The study of geometry draws from a very hallowed tradition, one taught by God to his prophets such as Adam, Noah, Solomon, and Abraham. Meḥmed Aga, a student and also successor of Sinan, in explaining the profundity of wisdom availed in the study and practice of geometry writes: “Thus, pure prophets are your masters!/ Thus, in the science of geometry one immediately becomes profound as the sea.”⁷⁴⁰ Geometry is presented as an esoteric science, connected to hermetic figures of both Christianity and Islam, the prophets Seth and Enoch. The subtleties of the science are

⁷³⁹ For an introduction to the Sinan autobiographies see Crane “Introduction” in Crane and Akin (eds.) 2006, 1–44.

⁷⁴⁰ Crane (ed.) 1987, fol.14v (henceforth *Risāle-i Mi‘māriyye*).

not elaborated. In this aspect, one can see parallels between the Ottoman and the Christian masonic guilds of the Middle Ages.⁷⁴¹

Following in this lineage Sinan presents himself to his reader as a Sufi sage: “the Hizir of his age.”⁷⁴² Hizir, or Khidr, is a celebrated prophet in Islam, who is identified as the paradigmatic master of its mystical tradition, Sufism. Hizir is known amongst Muslims as an immortal prophet who is invested by God with deep knowledge in esoteric sciences.⁷⁴³ Amongst the miracles of Hizir, according to Ottoman legends, was in inspiring the architect of the Hagia Sophia to build its large and overwhelming dome.⁷⁴⁴ A dome of such sublime qualities that the sixth-century historian Procopius after witnessing the newly completed church was moved to write:

And whenever one enters the church to pray, one understands immediately that it has been fashioned not by any human power or skill but by the influence of God. And so the mind is lifted up to God and exalted, feeling that He cannot be far away but must love to dwell in this place He has chosen.⁷⁴⁵

The hagiography of the Hagia Sophia had a catalytic effect upon the Ottomans and Sinan.⁷⁴⁶ Though it was established as a Christian church, Muslims viewed the building as a herald for the eventual victory of Islam and be established as a mosque. Ottoman legend has it that on the night of the Prophet Muḥammad’s birth the half-dome of the apse in the Hagia Sophia collapsed. It is related that repeated attempts to rebuild it was met with failure until a “Byzantine embassy was sent to [Muḥammad], who sanctioned its reconstruction.”⁷⁴⁷ It is also said that the mortar to rebuild the dome was composed from the water drawn from the well of Zam Zam, mixed with the Prophet’s saliva so as to ensure that the dome did not collapse again.⁷⁴⁸

For Sinan the dome of the Hagia Sophia (Fig. 8.4), was seen as the pinnacle of architectural evolution, one that was made possible only by divine intervention, with two of God’s prophets—Hizir and Muḥammad—playing a role in its building. The raising of the dome overhead the central nave was significant because it evokes the

⁷⁴¹ See Rykwert 1984, 21–22.

⁷⁴² *Tezkiretü'l-Bünyân* 120.

⁷⁴³ On Khidr’s role as the paradigmatic Sufi master see Halman 2013, 15–52.

⁷⁴⁴ Hizir was also celebrated as the patron saint of architects. Necipoğlu 2011, 147.

⁷⁴⁵ Procopius cited in Mainstone 1988, 10.

⁷⁴⁶ See Charles 1930, 320–345; Necipoğlu 1992, 195–225; Necipoğlu 1993, 169–190.

⁷⁴⁷ Necipoğlu 1992, 200.

⁷⁴⁸ Ousterhout 1995, 49. Zam Zam refers to the well situated near the *Ka’ba* in Mecca. Regarding its origin see Lings 2007, 2 and Al-Qu’āitī 2007, 9–10. On the efficacy of Muḥammad’s saliva to heal wounds see Qadī ‘Iyad, 178–179.

idea of the re-creation of the canopy of God's heaven on earth. This was no mean feat. This skill was evidence that God had granted the elected architect a unique disposition to mimic the divine activity of creating the cosmos. The fifteenth century Ottoman court historian Tursun Beg in describing Sultan Mehmed's close study of the dome—by way of a special platform built for him—writes how the experience of was akin to ascending into the very heavens of God: “as [though] the spirit of God had mounted to the fourth story of the heaven.”⁷⁴⁹ Upon conquering Constantinople the Ottomans transformed the old church into a mosque by adding necessary elements of Islamic architecture such as the *mihrāb*, *minbar*, and minarets.⁷⁵⁰ This building would from hereon serve as a divinely selected reference point for Sinan's works.



Fig. 8.4 Exterior view of the Hagia Sophia with the addition of the four minarets
(Source: Ousterhout 1995, 48)

⁷⁴⁹ Necipoğlu 1992, 197.

⁷⁵⁰ Finkel 2005, 53.

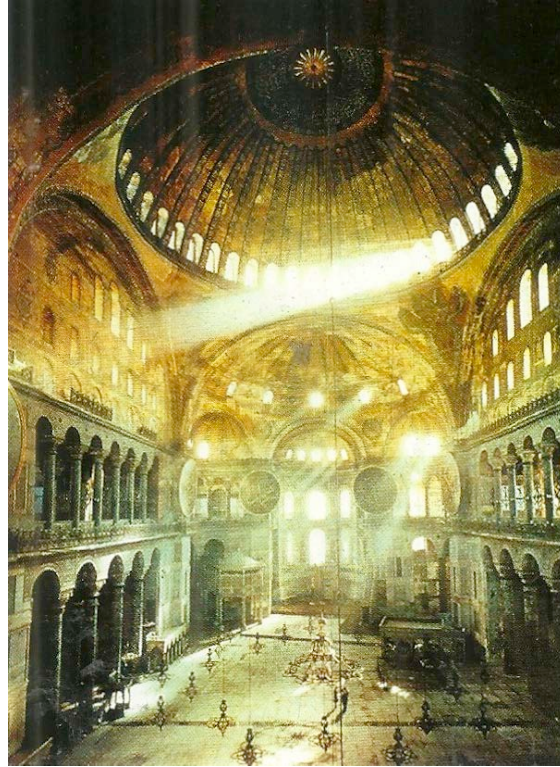


Fig. 8.5 Interior of the Hagia Sophia (Source: Necipoğlu 2011, 82)

For Sinan the education of the architect was essentially one grounded in thorough knowledge in Islam, reverence to God, and his Prophet. One looks to religion to secure an understanding of how to arrive at a spiritual disposition so that God would guide the hand of the architect to continue the work of the great prophets of aforetime, in raising edifices to celebrate the worship of God. To begin such an education, Sinan asks the reader to note that the architect must start his design process by firstly contemplating upon the works of God.

The Pavilion and Temple of Adam

Sinan begins all his biographies by praising God and his Prophet. This is followed by explaining God's construction of the cosmos and the human body of Adam. In reading his account it becomes quite clear that God too is an architect and that the cosmos and the body are to be imagined as buildings. For example in the *Tezkiretü'l-Bünyân* we read:

Thanks and praise to that Creator of the foundation of the seven stories (of the heavenly spheres) and incomparable glory to the Builder of the heavenly

canopy of nine vaults, who, in this workshop of water and earth, without level; or compass, fashioned the private palace of Adam's body, which is the pavilion of the heart and soul, and rendered delightful the mosque of the hearts (of humankind) with the adornment of virtue.⁷⁵¹

The building of Adam is then elaborated: "Kneading clay with (His) hand of power/ He constructed Adam's body/ The eye became the window of the pavilion of the body / And inscription(s) became its eyebrows/ When the pavilion of Adam's body was built up."⁷⁵² The building that is the human being also shares similarities by being ordered in a similar fashion to the multi-storied cosmos. "[God] created humankind, and, by means of a cloak of excellence, rendered it more distinguished and superior than (His) other creations. And in accord with the meaning of the truthful verse of the Qur'ān 'And We raise some of them above others in rank.' He made them differ in esteem from one another."⁷⁵³ For Sinan, almost from the onset, the body and cosmos are intimately interlinked by a common link to architecture, they are both to be imagined as buildings created by God.

Adam's body is also recognized as a temple of God, repeating ideas previously related in the Jewish, Christian, and Islamic traditions: "[God] rendered delightful the mosque of the hearts (of humankind) with the adornment of virtue."⁷⁵⁴ He also repeats Ibn 'Arabī's study that the House of God, *Ka'ba* is also found in the human heart. Identifying Muḥammad as its architect, Sinan says: "countless blessings [...] upon [Muḥammad] that architect of the *Ka'ba* of the hearts of the believers."⁷⁵⁵ Sinan's cosmological survey is brief, but it is completely premised on architecture. It begins with the multi-tiered cosmos, which is then followed by the pavilion-temple of the human body. He concludes the study by turning to the establishment of the physical *Ka'ba* in Mecca by Abraham.⁷⁵⁶ Cosmos, body, and building are considered to be inter-related. For Sinan the relationship between the cosmos, the body, and building is not negotiated mathematically but rather towards metaphorical correspondences which are all understood to be architectural, such as the cosmos is to be studied as a palace, the human body a pavilion-temple, and the *Ka'ba* is one that is found in the heart of the virtuous believer.

⁷⁵¹ *Tezkiretü'l-Bünyân* 112.

⁷⁵² *Ibid.*

⁷⁵³ *Risaletu'l – Mi'mariyye* 58.

⁷⁵⁴ *Tezkiretü'l-Bünyân* 112.

⁷⁵⁵ *Ibid.*

⁷⁵⁶ *Ibid.*

Sinan, who tasks himself to build “great, paradise like mosques”⁷⁵⁷ for the Ottoman state, continues this thematic of understanding the meanings of architecture by way of metaphorical linkages. His narration is suffused with attempts to signify each element of the structure as an aspect of faith. Specific to identifying the body with the building, he draws attention to the foundational core of the mosques he designed: the massive columns and the large dome overhead it supports. For Sinan, these elements, which represent the canopy of God’s heaven, simultaneously represent Muḥammad and his closest companions, the Rightly Guided Caliphs who took over his mantle to rule over the Islamic state after his death.⁷⁵⁸

Muḥammad: The Dome of Faith

The most impressive aspect of Sinan’s great works was to be the large domes that topped his mosques. Though the use of the domes was already prevalent in the Islamic world by the fifteenth century, the domes Sinan erected were massive and monumental to scales never attempted before.⁷⁵⁹ Sinan was attempting to demonstrate that he, like Hizir with the Hagia Sophia, was granted the vision and wisdom by God to re-make on earth the canopy of the heavens.⁷⁶⁰ This achievement was no mean feat. Referring to the dome of the Selimiye mosque he writes:

Its exalted dome is like the highest heavenly sphere/ To the seeing eye it appears an exemplar of the nine spheres/ A dome such as this on earth never was nor ever will [again] be built/ Its like does not exist in the spheres except for the azure sky/ Its dome seems suspended from the mosque of the spheres with the Milky Way.⁷⁶¹

Sinan then demonstrates how the dome is to be read as an analogy between the heavens and the perfect microcosmic human being, Muḥammad: “the dome between the four minarets is a wise spiritual guide” whose centre is the Prophet, the radiant finial: “[t]he finial on the dome hints at the divine light of The Prophet.”⁷⁶² Sinan who describes Muḥammad as the architect “of the *Ka’ba* of the hearts” and the “lamp of

⁷⁵⁷ Ibid., 117.

⁷⁵⁸ “The first four caliphs [Abū Bakr, ‘Umar, ‘Uthmān and ‘Alī] are known [...] as the Rightly Guided Caliphs [...] and are accepted to have lived in a pious and simple manner akin to that of the Prophet.” Bennisson 2011, 14.

⁷⁵⁹ Necipoğlu 2011, 144.

⁷⁶⁰ *Tezkiretü’l-Bünyân* 132; As Necipoğlu writes, the Ottomans were well apprised of the use of domes from their interaction with the Timurids. Necipoğlu 1992, 197.

⁷⁶¹ Ibid., 131.

⁷⁶² Ibid.

faith” reiterates the idea in the Islamic tradition that the entire cosmos was a consequence that arose from the centre and illumination of Muḥammad. In the mosque this illumination of Muḥammad presents itself as a radiant light suffusing the interior to emanate the experience of being in paradise: “The world is visible within it like a spherical mirror.”⁷⁶³ This domical sphere, i.e. Muḥammad, sits on the quadrature of four sturdy columns (Fig. 8.6 and 8.7). The four columns are to be read as the first four caliphs of Islam: Abū Bakr (d. 634), ‘Umar (d. 644), ‘Uthmān (d. 656) and ‘Alī (d. 661) (Figs. 8.7 and 8.8): “This well-proportioned mosque became a *Ka’ba*/ Its four columns became [like] the Four Friends/ The House of Islam on four pillars/ Was strengthened by the Four Friends”⁷⁶⁴

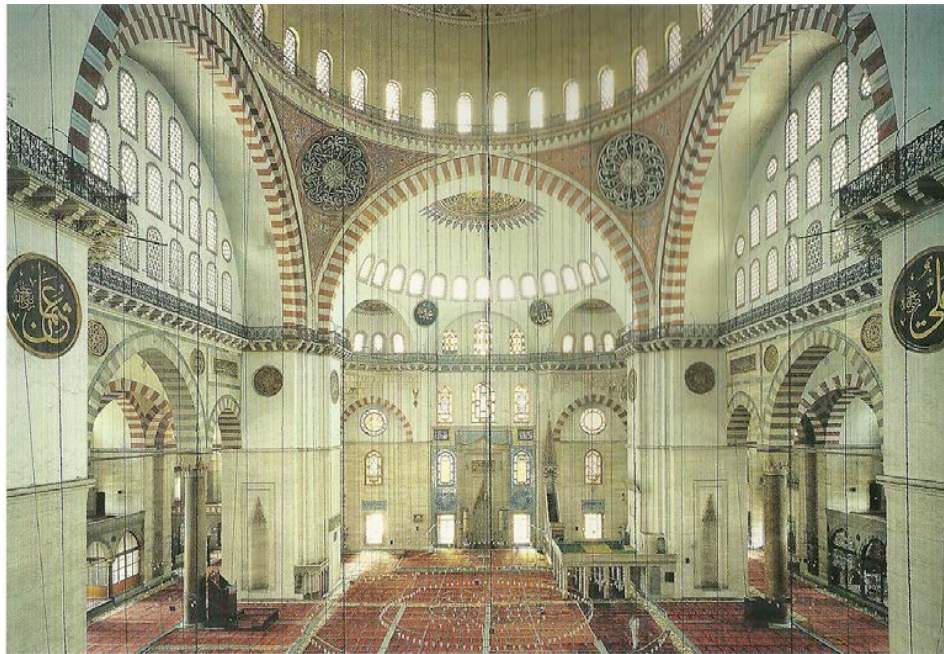


Fig. 8.6 Interior view of the main dome supported by four columns and arches, in the Süleymaniye mosque. The four columns are identified after each of the four caliphs by roundels bearing their names in Arabic calligraphy. (Source: Necipoğlu 2011, 214)

⁷⁶³ Ibid., 131.

⁷⁶⁴ Ibid., 123.



Fig. 8.7 Interior view of the Süleymaniye mosque main dome supported by four columns and arches.
(Source: Necipoğlu 2011, 215)

In the Selimiye mosque, Sinan identified the minarets to the four caliphs (Fig. 8.8):
 “The four minarets are like the Four Friends of the Glory of the World
 [Muḥammad].”⁷⁶⁵ We also read: “And the golden finial shining upon [the dome] is
 like the brilliant, gleaming sun. And the minarets and dome are like the Chosen
 Beloved [Muḥammad] the canopy of Islam, and of the Four Friends.”⁷⁶⁶

⁷⁶⁵ Ibid., 131. It is incumbent upon Sunni Muslims to acknowledge the piety and virtuosity of the Companions of the Prophet. “It is not lawful to insult or denigrate any of them.” Al-Ḥaddād 2010, 260–261.

⁷⁶⁶ Ibid., 124.



Fig. 8.8 The Selimiye Mosque with its large central dome flanked by four minarets. Sinan identifies the dome with the Prophet and the four minarets to the “Rightly Guided Caliphs”
(Source: Kuban 2010, 296)

In another description Sinan presents further architectural analogies for the companions all alluding to representations of fortitude in faith. He describes Abū Bakr as the “miḥrāb of the *Ka’ba* of truth and that lamp of the gate of the Way [...] the rock of the *Ka’ba* of faith.” ‘Umar, the “minbar of the mosque of justice and equity [...] pillar of the House of Islam [and the] brick maker of the wall of the pure faith.” ‘Uthmān is distinguished as the “adornment and ornament” of the faith and ‘Alī is presented as the “firm pillar of the house of faith.”⁷⁶⁷

For Sinan, as reading his biographies reveal, the great mosques, such as the Süleymaniye and Selimiye, which he designed, are to be contemplated upon as the physical representation of the foundational protagonists of Islam, presenting a metaphor and reminder of the virtues and actions of the Prophet and his companions.

8.2 Building as the Mirror of the Architect

In the *Tuḥfetü’l-Mi’marīn* (*Choice Gift of the Architects*) Sinan draws a connection between the results of architecture—endurance and beauty—to the religious virtuousness and piety of the architect: “In short, there is no art more difficult than

⁷⁶⁷ Ibid., 112–113.

architecture, and whosoever is engaged in this estimable calling must, to begin with be righteous and pious, only then can the architect proceed to lay the foundations of the building.”⁷⁶⁸ In this manner Sinan identifies himself to be following the august footsteps of Abraham and Muḥammad.

[Muḥammad] is the Abraham-like builder of the *Ka'ba* of the heart/
May it soar to the furthest limit like a lofty *Ka'ba*! May high and low share in
its perfection/ May the Matchless Creator make enduring foundations/ Of that
building and its builder for as long as the spheres do turn/ May this beautiful
and pure abode be a place of worship for the Muslims/ For as long as the
adepts pray in the celestial mosque!⁷⁶⁹

This meant that the strength of the architect's faith, patience with providential decisions, and the sublimity of his spiritual station eventually become evident in the buildings he produces. Only a building that is founded on such a premise is able to support the domes and half domes. Paraphrasing the chapter in the *Qur'ān* that celebrates the virtue of piety and patience, Sinan writes: “[The architect] should not hurry in important matters but should endure in accord with the import of the saying ‘Patience brings one victory!’ in order that, with God's help, he find divine guidance for the immortality of his work. And in this there is no doubt.”⁷⁷⁰

Sa'ī identifies Sinan not only to be a saint but above all a *kamil insana*, the perfect man.⁷⁷¹ The term *kamil insana* is closely identified with the teachings of Ibn 'Arabī that describes the active realization of the human being as the microcosm: “For God entrusted all Knowing in the (heavenly) spheres and He made the fully human being (*insan*) the total sum [...] of the entire cosmos.”⁷⁷² It is to this architect God had entrusted the vision of Paradise so that it may be realised on earth: “Above all, his excellency, the aga of architects [Sinan] that patron saint of masters/ As all the world says, builds with saintliness that which he builds.”⁷⁷³ Sinan is the Hizir of his age. One vested with divine knowledge to build paradise-like mosques, with enormously large domes as it was in the Hagia Sophia: “They say Hizir Hagia Sophia designed/ Do not think this Hizir-like man [i.e. Sinan] a mere mason to be.”⁷⁷⁴

⁷⁶⁸ *Tuhfetü'l-Mi'marīn* 66.

⁷⁶⁹ *Tezkiretü'l-Bünyān* 133.

⁷⁷⁰ *Tuhfetü'l-Mi'marīn* 66; *Qur'ān* 103: 1–3.

⁷⁷¹ *Ibid.*, 128 and 153.

⁷⁷² Ibn 'Arabī cited in Morris 2005, 286–288

⁷⁷³ *Tezkiretü'l-Bünyān* 132.

⁷⁷⁴ *Ibid.*, 132.

As we have read with Avicenna, al-Ghazālī, and al-Suhrawardī, the geographies of the afterlife for the soul is founded upon one's actions in the terrestrial sojourn. Those who had led a life of virtue and goodness are said to enjoy the illuminated company of God in Paradise. Sinan is convinced that he has built such a place here on earth. For example his description of the interior of the Selimiye mosque reads: "Those lamps and spherical mirrors suspended there are/ Like leaves and fruit of the Tuba tree in the Garden of Paradise."⁷⁷⁵

In Sinan's text, the discussion of the relationship between body and architecture is rather brief. What is availed mainly centres on the idea that architectural elements of the mosque, in an abstracted form, serves as a reminder of the virtues of the Prophet and the Rightly Guided Caliphs. The other correlation between the human being and the building centres on the personality of the architect. As Sinan reiterates several times, the path of the architect is to follow the path of Hizir, Abraham, and Muḥammad; the authors of God's house, the *Ka'ba* and also the Hagia Sophia. Similarly it is Sinan's spiritual station as the *kamil insana* that made it possible for him to create and repeat, mosques that conjure the experience of heaven. In this case the splendor and endurance in the building rests upon the perfect spiritual measure of Sinan rather than a set of mathematical proportions of an idealized human body: "My felicitous padishah, this humble servant of yours, the architect [Sinan], is no empty headed man. He seemed to be possessed of saintly abilities!"⁷⁷⁶

The Pavilion of the Architect's Body

Sinan's other reflection of the body as building in his treatise is a moving personal study of the architect's mortality. He writes how the building of the Adamic body, his body, has started to atrophy. Even as one ages and nears death, the study of the body as a mirror of architecture continues to be instructional. As we recall, Sinan called the body of Adam a pavilion built by God. Now at an advanced age, the pavilion that was once set up straight and upright has started to incline. But even this deformation teaches by way of architecture, as an arched bridge that offers the metaphor of travel from this temporal world to the afterlife.

⁷⁷⁵ Ibid., 133 and n.183.

⁷⁷⁶ Ibid., 127.

I looked upon all creation as a lesson/ And completely understood it has no permanence/ I laid the foundations of many buildings/ (Doomed to) annihilation, man does not endure/ The pavilion of my body began to crumble/ I suffered pain in its fetters/ The sorrows of fortune my beard turned gray/ Think not my bended form is an arch/ It is a bridge of passage to grief and sorrow/ Brother, in order to pass to the next world to this vault of fate's pavilion I bowed my head/ Thanks be to God that I am a righteous man!/ In my art, I am upright and firm.⁷⁷⁷

As he concludes his poetry Sinan draws comparison between the crumbling pavilion of the human body—the microcosm—and the ever-enduring pavilion of the world supported by the firm “pillar of the Faith.” Unlike the temporality of the microcosm, meaning both the human body and architecture, the abode of God’s house in the heavens is eternal and permanent. Sinan asks Sa‘i to join him in seeking this place as the final resting place for himself and all Muslims: “O God, may You compassion have!/ Make Paradise the abode of them all!”⁷⁷⁸

8.3 Mehmed Aga’s *Risāle-i Mi’māriyye*

Following Sinan’s death, the role of the chief architect of the empire was taken over by his student Mehmed Aga (d. 1623). Mehmed followed Sinan in having his biography written. This work was undertaken by his friend Ca’fer Efendi. Written in the early period of the seventeenth century, the *Risāle-i Mi’māriyye* (*Treatise of Architecture*) follows Sinan’s biography in introducing the background to how the architect was trained. Efendi’s work though goes far more into details concerning the major projects undertaken by Mehmed. Similar to Sinan, Mehmed’s biography edifies the idea of the architect as a spiritual master, one who is on the path of emulating the work of God and his messengers, such as Seth, Noah, and Abraham.

Mehmed’s work is more expansive than Sinan’s, with lengthier discussions on the role of mathematics, geometry, music, and architecture. The Pythagorean grounding is unmistakable and presents itself as a connective thread between cosmology, mathematics, music, geometry, and building. Pythagoras, as Crane explains, was considered “by Muslims to be the inventor of the science of music and the propagator of arithmetic and geometry among the Greeks.”⁷⁷⁹ Mehmed tells us

⁷⁷⁷ *Tezkiretü’l Ebinye* 89–90.

⁷⁷⁸ *Ibid.*, 90.

⁷⁷⁹ *Risāle-i Mi’māriyye* 27 n.14.

that Pythagoras compiled a book on geometry and mathematics under the guidance of Solomon, who is revered in Islam as a prophet of God.⁷⁸⁰

In the text, Meḥmed narrates to us of what he learnt in studying the symbolic significances of Pythagorean sciences. As a youth, Meḥmed wanted to pursue music as a career. This leads him to a teacher who guides him to understand how the modalities of music arrive from the heavens, starting with the zodiac signs: “as with the twelve constellations of the zodiac of the eighth heaven, the modes are divided into twelve kinds.”⁷⁸¹ This cosmic correspondence continues further with relations drawn to the four elements, the seven planets, and also the twenty-four hours of the day. Music is represented as an exemplary form of manifestation that can reveal the harmony of the cosmos. Though Meḥmed is impressed, he is overcome with premonitions of choosing a career in music. His anxieties are confirmed by a Sufi sage, who advises him against pursuing music, a practice he says is not associated with the virtuous.

Soon thereafter, Providence leads Meḥmed towards the practice of geometry and architecture. He is tutored by the master of the guild on how the great prophets and sages of God (including Pythagoras) pursued this art. Unsurprisingly, he receives spiritual sanction and blessings to become an architect, and is told that the building of mosques was recommended by the Prophet himself: “In accord with the blessed Tradition [...] if one builds a blessed mosque, even if it is like the nest of a tiny bird, in reward for it, God [...] makes a room in heaven for that person.”⁷⁸²

Meḥmed realizes the science of music—the harmonic imitation of the order of the cosmos—eventually in architecture, in his design of the Sultan Ahmed Mosque: “Now we have seen the science of music, in its entirety in the building of the noble mosque.”⁷⁸³ He continues to explain how this was possible: “When looking at this noble building I saw twelve types of marble. From each marble a different sound or type of melodic mode is produced.”⁷⁸⁴ Meḥmed then goes on to discuss the division of jewels and colours used in the materials of the building. In each and every one of them, one is taught of its mathematical significance and its parallel correlation to musical ratios. We find here mentioned the symbolic numbers four, twelve, and seven

⁷⁸⁰ Ibid., 27 and 31.

⁷⁸¹ Ibid., 26.

⁷⁸² Ibid., 27 and 31.

⁷⁸³ Ibid., 68.

⁷⁸⁴ Ibid.

used in the way they are categorized, thus resonating with the cosmic analogy of music he had earlier conveyed.

The idea that Pythagoras did play a key role as a source of instruction in fifteenth and sixteenth century Ottoman architecture offers rather intriguing possibilities of what the Ottoman architects—such as Sinan and Mehmed—knew as a background to their architectural practice. Pythagoras' ideas on cosmology, mathematics, music, and astro-biology have had a long presence in the Islamic tradition dating back to al-Kindī, al-Fārābī, and Avicenna.⁷⁸⁵ The knowledge of the relationship between the harmonies of the cosmos was seen as being important for both bodily and spiritual well-being. The most famous Islamic Pythagoreans were the Ikhwān. Given that by the sixteenth century the Ottomans had under their control both Baghdad and Damascus, it is likely the royal architects would have had access to the major philosophical works, including that of the Ikhwān. Though Mehmed's reading of mathematical harmonies and musical theories in the *Risāle* are limited and not fully elaborated to state how it relates to the body or architecture, they do hint at the knowledge he may have had of musical theories derived from all the abovementioned Islamic philosophers. For example it is possible that he would have known of the Ikhwān's *Epistle on Music*, which presents for the first time an Islamic attempt to correlate the cosmic musico-mathematical correspondences to the human body. It is also quite certain both Sinan and Mehmed had access to Vitruvius' treatise. But both architects, while stating the importance of mathematics and geometry, do not discuss at all how the body mathematically corresponds to the cosmos and how this was transferable to architecture.

While symbolic numbers were in operation, for example columns representing the Rightly Guided Caliphs, the dome as the Prophet, and the use of the twelve types of marbles mirroring the zodiac, the Muslim architects did not formalize them as a set of canonical architectural theory. In fact the relationship between body and building is limited to the brief metaphorical relations we read above from Sinan. With Mehmed there are no explicit connections made between the body and architecture, but we find him, like Sinan, utilizing metaphorical symbolism to present evocatively how the mosque he had designed replicates the experience of being in heaven.⁷⁸⁶

⁷⁸⁵ See Farmer 1926, 89–124.

⁷⁸⁶ *Risāle-i Mi'māriyye* 68.

The metaphorical correspondences found in the works of Sinan and Mehmed recall the writings of Hugh of St. Victor and Durandus who, as we have read earlier, attempted to map each and every architectural element of medieval cathedrals to the Christian faith. It is interesting to note that such an enterprise continued well into the eighteenth century in the Ottoman Empire. In a monograph written to celebrate the Selimiye mosque, titled *Selimiye Risālesi* (circa 1740), a certain Dayezāde Mustafa attempts to read into each and every aspect of the Selimiye mosque multiple metaphorical meanings drawn from the Islamic traditions.⁷⁸⁷

A self-confessed bibliophile, Dayezāde was led to the study of the Selimiye mosque while participating in a debate concerning the comparison of its dome with the Hagia Sophia.⁷⁸⁸ Thereafter he goes on to study the biographies of Sinan to understand the meanings of this “peerless mosque.”⁷⁸⁹ On why he chose to write his treatise, Dayezāde explains that it was to “discover the metaphors that Architect Sinan [...] aimed at during the construction,” and he succeeded in doing so “in a way nobody had succeeded before [...] to discover in detail [...] comprehensive meanings that Sinan aimed [at].” The way he arrived at these meanings, Dayezāde states, was a providential gift, a “revelation in my heart.”⁷⁹⁰ After this introduction, Dayezāde sets off on an almost breathless recovery of the symbolic meaning he reads into the building. His description of the mosque’s imposing dome and minarets is illustrative of the thrust of the entire text. At one instance an architectural element is able to grant polyvalent meanings to an inspired worshipper such as Dayezāde.

The aim of building this mosque with a unique dome and not surrounding it with smaller domes like other mosques is to indicate the saying: ‘the Truth has come, and falsehood has vanished.’ Through this Islam is compared to the unique dome whereas the other religions are compared to smaller domes [...] The four half domes built near the large dome is to ensure that this mosque lasts until doomsday with all its beauty. However the overall appearance of the minarets with the large dome is poetically expressed as a rising sun around the cypress trees. Moreover, it can also be connected with the *hadīth*: ‘Islam has been built upon five things,’ referring to the five pillars of Islam. Or he might have also indicated the shelter of the earth being our Prophet and his four

⁷⁸⁷ “Dayezāde remains a little known and perhaps marginal figure in Ottoman history.” Morkoç 2010, 79.

⁷⁸⁸ Dayezāde in Morkoç 2010, 319.

⁷⁸⁹ Ibid., 319–321

⁷⁹⁰ Ibid., 323.

companions Ebu Bekir Siddik [Abū Bakr], Omer Faruk [‘Umar], Osman-i Nureyn [‘Uthmān] and Ali el-Murtaza [‘Alī].⁷⁹¹

Dayezāde was writing this treatise in the middle of the eighteenth century when the Ottoman Empire was starting to slowly adopt aspects of Western culture, with ambassadors dispatched to study the cultural, intellectual, and economic transformations in Europe. But the conservatism of the society was such that there were always suspicions concerning any adoptions from the West. For example the printing press, which was already prevalent in Europe was frowned upon by Islamic religious scholars who preferred transmission of religious texts by way of copying from manuscripts. This was symptomatic of a wider resistance against adopting foreign ideologies that were seen to threaten the hegemony of Islam: “Historians have by and large concluded that [Islamic scholars] and their orthodox attitude of not favouring modern sciences and theories were the basic obstacles that hindered an emerging Ottoman enlightenment.”⁷⁹² Even into the eighteenth century it was faith, Islam, rather than modern science that played a central role in offering perspectives on how a Muslim subject in the Ottoman Empire viewed the world.⁷⁹³

While the wealthy did show interest in Western classical and baroque styles, this influence was limited and was hybridized into existing Ottoman architectural paradigms. As Hamadeh explains, even in the early nineteenth century such experimentations had less to do with “western influences but rather [one that] grew for the most part out of [the Ottoman’s] own social climate.”⁷⁹⁴ The sixteenth and seventeenth century architectural developments in the Ottoman Empire mark a new chapter in Islamic architectural history. Sinan is attributed to have canonized a new architectural parlance, especially in the design of grand mosque complexes. While there were no formalized architectural theories, what we learn from both Sinan and Meḥmed is the intention to continue a tradition that had gone long before them, and an enthusiasm to ground their works strongly on established religious traditions. In this manner their approach resonates with the continuity of ideas we see across the age with Islamic thinkers; the desire to build on the past, which is quite different from

⁷⁹¹ Ibid., 331.

⁷⁹² Ibid., 91.

⁷⁹³ Ibid., 97.

⁷⁹⁴ Hamadeh 2004, 46; On the general disinterestedness of the Ottomans of developments in Western architecture even in the early twentieth century see Peker cited in Morkoç 2010, 90 n.223.

the challenges posed against authority and tradition by Western contemporaries such as Descartes and Perrault.