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A Symbol of Central Space in Pre-Anatolian Turkish Religious Architecture: Water Element

Melih AK^{1,*}, C. Nakış KARAMAĞARALI²

¹ 0000-0002-6296-8063, Gazi University, Architecture Faculty, Department of Architecture, 06570, Ankara, TURKEY
 ² 0000-0002-3255-4070, Gazi University, Architecture Faculty, Department of Architecture, 06570, Ankara, TURKEY

Article Info	Abstract
Received: 28/03/2022 Accepted: 30/03/2022	The concept of central space and water element in Turkish architecture had an important role both in pre-Islamic and post-Islamic times, and both were used frequently together with the dome and iwan emphasizing four directions. This set created an architectural concept containing the 'microcosmos' philosophy for Turks, who believed in Shamanism, Tengrism, Manichaeism,
Keywords	Buddhism and Islam. The use of water element together with central space in Turks showed continuity both functionally and also as a symbolic cultural item. In this article, the process that
Central Space, Iwan, Court, Water Element	brought the water element, which was seen in Turkish religious architecture before they arrived in Anatolia, as a component of the central space is analyzed in terms of belief and culture.

1. INTRODUCTION

Water has been one of the most important factors for the continuity of life since the existence of mankind. As being aware of its importance, humankind based water among the elements of existence of the world and placed the necessary emphasis on it. By the time people switched into settled life and agriculture, water became so important to define the place to live. Besides daily usage of it, each society attributed meanings to this source of life by sacralizing and religionizing and gave water a special place in their lives.

In order to better understand the structure and the function of this symbol, which plays a vital role in the interpretation of the universe, and which occupies an important place in religious life, it is necessary to examine the spiritual aspect of water thoroughly. There is water in all probabilities of existence on earth and all re-creations are based on water [1]. Water has a constantly stable function in religious conglomerate: Washes away sins, breaks forms into pieces, resolves and rejuvenates while purifying [1].

In Greek mythology, rivers and the seas equate with gods and there is the "purifying water" phenomenon. While Indian religious resources describe water as the source of existence and as the elixir of immortality, in Egyptian mythology, water is the first element, the first quintessence of the universe. In Christianity, a person who is not baptized is not regarded as entered the religion, and in some ancient beliefs water is divinized [2]. We can understand that rivers, mountains, waters and sources are divinized in Turks [3] from the examples such as sacrificing in springs and barren women wishing fertility from the spring [4].

In Turkish architecture, central space is the basic design principle not only in religious constructions but also in educational, civil, commercial and military structures. Central space is used in all structures as it is found in religious architecture as Buddhist *viharas*, mosques, and mausoleums; in civil architecture as tents

* Corresponding author: melihak@gazi.edu.tr

(*yurt*), houses, palaces; in commercial structures as inns, caravansaries; in educational buildings as madrasahs; in military structures as military cities (*Ordu-Balik*) and *ribats*.

Water, which has become an essential element in the composition of the central space in Turkish architecture, has become sacred not only because it is indispensable for the continuity of migrant settler lifestyle but also because all life is shaped around water. The beginning of the transition to settled life and the prevailing belief of Tengrism in Turks didn't change this situation; water, which had an essential place in the belief system, later became a fundamental element of ground-water worship in Manichaeism. After the Turks started to believe in Buddhism, the central space composition of the religious architecture was composed of the court and the central shrine with four directions are emphasized, where the Buddha statue is placed and surrounded by aisles, water appeared on the murals, depicting religious rituals.

Turks, who considered water sacred even before accepting Islam, carried the water element to secondary importance after the dome when they built their centrally emphasized religious structures after the acceptance of Islam. Presence of verses such as "Do not the Unbelievers see that the heavens and the earth were joined together before we clove them asunder? We made from water every living thing. Will they not then believe?" (Enbiyâ 21/30), "He Who has made everything which He has created most good: He began the creation of man with (nothing more than) clay. And made his progeny from a quintessence of the nature of a fluid despised" (Secde 32/7-8), zam-zam water that is considered sacred and the necessity of performing ablution before praying indicate the importance and holiness of water in Islam. As a result of this fact, although the presence of water element in Islamic religious structures is inevitable, the inclusion of it in the central space composition has particular importance for Turks.

2. THE CONCEPT OF CENTRAL SPACE IN PRE-ANATOLIAN TURKISH ARCHITECTURE

A center is needed for the embodiment of the sacred in the infinite vastness, where it is impossible to determine direction, and one desires to be in this center where he can communicate with the gods [1, 5]. From this center passes a vertical cosmic axis called 'axis mundi', and the earth rotates around this virtual axis. In the world system, layered with cosmological images or religious searches, the transition between layers is done through 'axis mundi' and 'axis mundi' is represented by images such as poles, stairs, mountains, trees [1]. The layers in the world system of shamanist Turks are sorted as sky, earth and underground. The earth refers to the world we are on; the divines in the 'underground' and in the 'sky' appear on the 'earth' through 'axis mundi' [4, 5]. This center, where man communicates with his god, is the 'microcosmos' that is a small universe reduced to a human scale. Therefore, to be in the center of the world and to design that center is precious for a believer [1]. Each society has originally designed this center according to its beliefs, culture, way of life, social structure and environmental conditions.

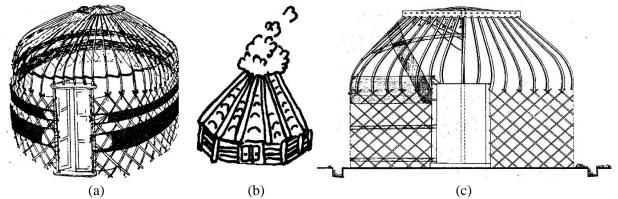


Figure 1. (a) Turcoman Tent (Yurt) [6], (b) Altaic Turkish Tent (Yurt) [8], (c) Turcoman Tent (Yurt) [6]

Called as '*yurt*' each tent (Figure 1a, 1b, 1c) of the Huns [7], who were nomadic to a great extent but also have communities that we would describe as semi-settled are a 'microcosmos'. Fire burns in the center of these tents, where the dome represents the sky, and above the dome, there is a '*tüteklik*' (smoke hole) (Figure 1b) where the smoke from the fire exits the tent [4, 8]. With their 'axis mundi' starting with the fire on the ground and reaching first to the '*tüteklik*' than to the 'sky', these tents become 'microcosmoses'.

In Gokturks, there are some traces of settled life, such as agriculture, mining and architectural remains [7]. Ak-Tepe and Ak-Beşim cities, the beginning of which are dated as Gokturk era (7-8th century) and which accent with palaces and center emphasized Buddhist shrines, can be given as examples of these remains [7]. The depiction of the universe in Buddhism 'mandala' (Figure 2a, 2b, 2c) was not much different from the prototype of the temple of heaven. Turkish Buddhist shrines are also built on the same plan, and it is written in a Buddhist text that each structure should be constructed around a center to face four directions [9]. Although the first Buddha Shrine in Ak-Beşim (Figure 3a, 3b) has a rectangular plan, a five-step staircase leads from its court to the temple with surrounding aisles. On the other hand, the second Buddha Shrine (Figure 3c) having a square plan, has in its center a temple section containing the Buddha statue, and is surrounded by a double aisle; it is estimated that the temple is covered by a lapped dovetail dome with lantern [7]. Furthermore, the perimeter corridor of the temple provides the opportunity to circumambulate the sacred area and, therefore, a spiritual journey. The final destination of this spiritual journey is the statue of Buddha [5]. In the first Buddha shrine, the dome, the surrounding aisle, and the staircase bring to mind the emphasis to the center and 'axis mundi' respectively; in addition to the center emphasized perimeter corridor of the second Buddha Shrine, the lapped dovetail dome with lantern reminds the tent and 'axis mundi'.

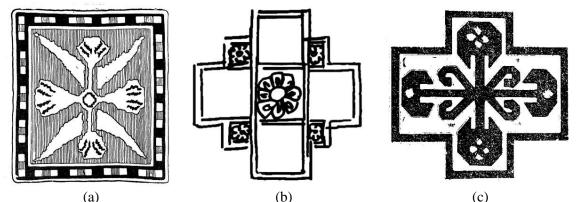


Figure 2. Hun Rose in a Pazırık Carpet [6], Uyghur Mandala [10], Kyrgyz Çagal Rose [6]

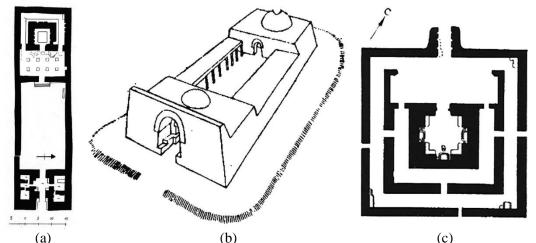


Figure 3. (a) Plan of Ak Beşim Buddhist Shrine 1 [7], (b) Ak Beşim Buddhist Shrine 2 Axonometry [7], (c) Plan of Ak Beşim Buddhist Shrine 2 [5]

Founded in 744 around the Orhun River, the Uyghur State accepted Manichaeism as the official religion before Buddhism but would later adopt Buddhism, which had a significant impact on its architectural works. [7]. Built since the 3rd century BC [10] and thought to have inspired the emergence of open-courtyard madrasahs [5], the *viharas* were used as shelters by Buddhist monks and passengers, as well as a training center. According to the texts in Chinese, Tibetan and Turkish languages, the social complexes built by Uyghurs in Koco in 767 and in Senghim in 983 were constructed by Turks to Turkish architects. Senghim Complexes (Figure 4a, 4b) have a square plan and consist of a citadel and a bailey. The complex found in Murtuk (Figure 4c), on the other hand, totally reminds us of a *mandala*; there are four entrances at four directions and again has got an inner citadel and an outer fortress. In these structures, which have a similar composition to '*Ordu-Balık*', the domed mansion in the inner castle is replaced by a domed structure called Budha house [10].

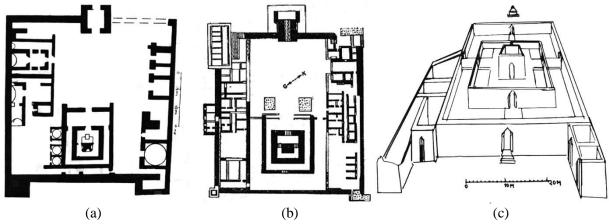


Figure 4. (a) Senghim Complex 7 [10], (b) Senghim Complex 9 [11], (c) Complex found in Murtuk [10]

Ordu-Balık, which is usually in square form in a Turks, was surrounded by walls, trenches and towers. The *Ordu-Balık* (Figure 5a) built in 750 by the Uyghur Khan Moyunçur, consisting of two nested castles, can be given as an example to this. When the Uyghurs and the Chinese allied in the year 629, 68 military inns were built on the road from the Chinese capital to the Uyghur province. These inns have a square plan, a courtyard in the middle and fire towers in the corners. In these inns, which are the versions of Turkish military cities, four directions and the center were emphasized as in a *mandala* (Figure 5b), and before a structure or a city is built, four stakes would be piled to determine the four directions. The castle where the monarch's mansion is located symbolizes the golden mountain, which is considered to be at the center of the world and rises to the infinity of the sky [10]. These *Ordu-Balık*s and inns that were built by Turks are the precursors of caravansaries, which were named as *ribat* at the beginning and seen during and after the Karahans.

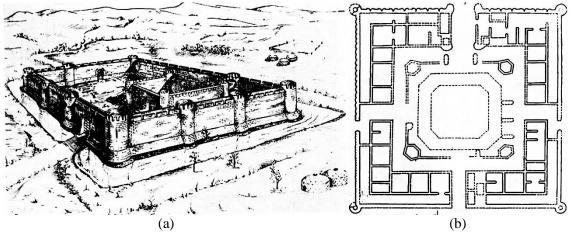


Figure 5. (a) Şagonar 3 Complex [10], (b) Çal-Duvar Complex [10]

It can be considered that the four iwaned plan, which is also seen in Horasan houses, served as a model for Hargird Madrasah (Figure 6a) built in 1087 and later for Day Hatun Caravansarai (Figure 6b) built in the 11th century and to Zevvare Cuma Mosque (Figure 6c) built in 1135 [12]. However, not only Horasan houses and Gazne palaces but the Buddhist monasteries built by Turks long before them may have set an example for the open court madrasahs [13, 14]. The use of four iwan courtyards in mosques that started in the 12th century in the Great Seljuks has a significant place besides its symbolic aspect [5, 15]. With the dome they added in front of the *mihrap*, the Turks [7] crowned the center emphasis that is prominent in many architectural works, which have four iwans and a courtyard mosque plan.

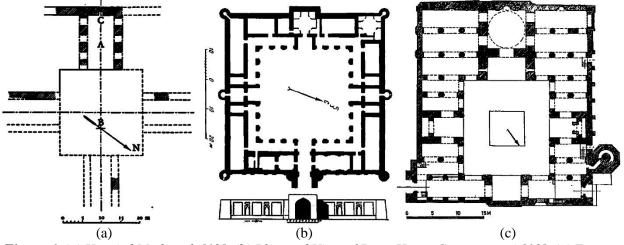


Figure 6. (a) Hargird Madrasah [12], (b) Plan and View of Daya Hatun Caravansarai [10], (c) Zevvare Cuma Mosque [16]

In 840, by the establishment of Karahanlı State in Maveraünnehir, Çu and Fergana region, Karahanlı cities, where Islam religion dominates, were built besides Uyghur cities, where Buddhist religion predominated, and in these cities, the architectural traditions of Turks from inner Asia were integrated with Islam, so the first Turkish-Islamic works emerged [7]. One of the most important features of Turkish mosques that differentiate them from the first Islamic mosques is that the Turks used mainly bricks instead of adobes [7]. The Hazar Degaron Mosque (Figure 7a, 7b), dated to the 11th century, by the Karahans [17], who built the first mosques with a central dome, is a central domed mosque in which bricks and adobe were used together [16], and that refers to the four pre-Islamic holy directions and the central scheme of the Temples of the Sky [7, 18]. Talhatan Baba Mosque (Figure 7c), another example that bears the traces of pre-Islamic Turkish architecture as a central domed structure in front of the *mihrap*.

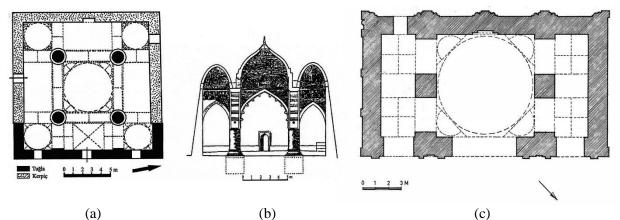


Figure 7. (a) Plan of Hazar Mosque [19], (b) Cross Section of Hazar Mosque [19], (c) Plan of Talhatan Baba Mosque [16]

3. WATER ELEMENT IN PRE-ISLAMIC TURKISH RELIGIOUS ARCHITECTURE

Water alone does not mean sanctity, but when cosmic meanings are loaded [20] and rendered with works of art and architecture, it becomes sacred [21]. In some of the tombs (Figure 8a) in Turkmenistan, Mongolia and the Caucasus, the deceased are depicted on the headstones with a chalice (Figure 8b), and it is believed that the holy water from this cup brings immortality [20]. Khanate in Gokturks is sacred, and according to the legends, khanate was blessed when the first khan united with the goddess of the lake. Again, *İduk Baş* Spring, located in the Ötüken region, as mentioned in Gokturk legends is a sacred spring that represents the center of the administration, which should be taken over by those who want to rule the Turks [5]. Even the chalice held by the deceased on the tombstones is located in a position that can be the center of the human body, and the reflections of this understanding also appear in architectural works.



(a) (b) **Figure 8.** (a) 6-8th Century, Tomb in Altays and the Balbals Lined Towards East, Representing Enemy Killed [22], (b) 6-8th Century Tombstone in Altays Representing the Deceased. [22]

It is known that the Chou dynasty, which consisted of proto-Turks who ruled northern China between 1050 and 247 BC, had its roots in the steppes [23, 24]. Sky worship was not common on Chinese territory before Chous, but the ruler of Chou was performing the sky worship. In Tengrism, worship was performed on a high mountain with a spring or a lake outside the city. There is an altar that resembles a tent, and the monarch sits on a felt carpet laid on a circle-shaped elevation in a round pool [9]. Although this part, which is described as an elevation in the pool, cannot be described as an architectural work, it is understood that it represents a certain concept with its presence in the center of the pool.

Since the monarch is a representative of Tengri, the palace of the monarch also serves as a place of worship [9]. In this case, it can be mentioned that the water element, which has become an indispensable component for Tengrism, also exists in palaces. We come across with a palace in the middle of the cities in Ak-Tepe of Karluks, which is thought to be established at the end of the Gokturk era, and a pool in the middle of this palace [7]. The presence of the sacred element at any moment in the pool used in palace architecture legitimizes the monarch and makes him an irresistible force, and contributes to his authority. The holy palace has a common tradition from China to Rome but integrates into Asia with the pool, which is one of the common expressions of 'axis mundi' and its destination to the holy 'place' [5].

A sky temple mural (Figure 9a) which depicts the formation of the universe, was found in one of the oldest shrines of the Buddhist complex belonging to the Uyghur era in Bezeklik. This temple refers to the five sanctities of the universe that match the Turkish texts. The first of these sanctities is the underground, and the remaining four are fire, water, air and earth [9]. An 8th-9th century Uyghur mural (Figure 9b) of Manichaeism reveals that a ruler thought to be Bögü Khan performed ground-water worship around a central pool [25]. The expression of the celestial sphere by the outermost circle in both murals (Figure 9a,

9b), the presence of water in the center of worship in the mural (Figure 9b) is associated with Manichaeism, and the acceptance of water as one of the five sanctities in the mural (Figure 9a) associated with Tengrism are all the manifestations of how the celestial sphere and the water element are important for the Turkish world of belief.

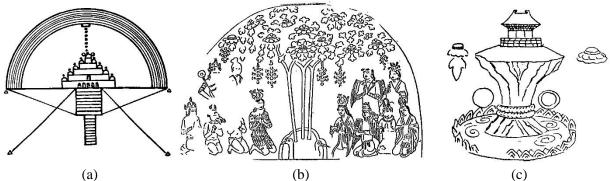


Figure 9. (a) Picture of Sky Temple [9], (b) Ground-water worship in Uyghur Mural [25], (c) Sumeru Mountain raised from water in Bezeklik Murals [26]

There are many murals that include water in Bezeklik [20]. In one of these murals (Figure 9c), the great Turkish ruler lives on Sumeru Mountain, where the sun and the moon rotate around, rising from the waters and at the top of which the God Indra sits [25]. In the depiction of the universe (Figure 10b) found in the 27th Temple in Bezeklik, a tree and Sumeru Mountain rise from the sacred water; there are gods in the branches of the trees, and on the top Bodhisattva sits on a lotus-shaped throne [25]. In another mural (Figure 10a) depicting a religious ceremony, the double dragon emerges from the square-shaped pool and rises to the celestial sphere [25]. In the first of these depictions (Figure 9c), there is a sheltered structure at the top of Sumeru Mountain that can be interpreted as the throne of the ruler or Indra. This structure stands out for its hexagonal or octagonal form and its dome with an opening above.



Figure 10. (a) Bezeklik 9th Temple Mural [27], (b) Depiction of the Universe in the Mural of Bezeklik 27th Temple [26]

There is a pool fresco (Figure 11a) with a dragon on the floor of the sacred section, which is accessible only to monks in the Koco A Temple (Figure 11b), which is a Buddhist complex that reminds the examples found in Bezeklik [28]. The union of dragon and water reveals a strong symbolism, meaning the union of the universe and the source of life. Considering this strong expression, that the dragon pool rendered on the ground of Koco A Temple defines a sacred area for priests and is included in the architectural composition, is important for cosmological representation.

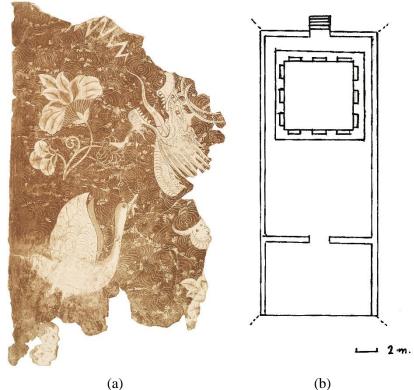


Figure 11. (a) Pool Fresco with Dragon [29], (b) Plan of Koco A Temple [11]

4. WATER ELEMENT IN POST-ISLAMIC TURKISH RELIGIOUS ARCHITECTURE

Although there are common features based on functional similarities in the religious structures of societies that accept Islam, these societies had their own architectural identities before Islam. Even mosques are the common kind of structure in all Islamic societies, there are differences emerging from these different architectural identities [30]. The Turkish-Islamic architecture developed as a result of the geographical interactions of the Far East, India, Turkistan, Caucasus and Iran [20]. Turks have always projected their desire to create a central space both in their layouts and in their architectural works with components such as domes, iwans, courtyards and the water element. However, they were influenced by the art of those societies as well as instilling their own understanding of art in the societies they dominated.

With the emergence of the Islam religion, the water element starts to appear as a shadirvan for the purpose of ablution in mosques. The architectural composition of the first mosques with shadirvan is shaped on a horizontal axis from the outdoors to the courtyard, from the pool in the courtyard to the place of worship, from the place of worship to the *mihrap*, from the *mihrap* to Kaaba [31]. The pool on this horizontal axis represents underground sanctities [32].

The combination of the mosque and the central water element first took place in the 9th century with a fountain marble pool covered with a dome in the courtyard of Tolunoğlu Ahmet Mosque (Figure 12a) [5, 34]. In this mosque built by Tolunoğlu Ahmet, the son of the Turkish commander appointed as the governor

of Cairo, the use of bricks instead of stones that are widely used in Egypt can be explained by Turkish influence [15].

Some remains were found indicating the existence of a pool in the courtyards of Semerkand Grand Mosque (Figure 12b) built in the 8th century and Dandanakan Mosque (Figure 12c) built in the 9th century by the Samanis. These remains may be from the repairs [35] that were done by Karahans in Semerkand Grand Mosque and Seljuks in Dandanakan Mosque during the 11-12th centuries. Similarly, the ruins indicating the existence of a pool were found in the porticoed courtyard of Ahsikent Grand Mosque, which was built in the second half of the 9th century, and a Karahanli coin from the first quarter of the same century was found in the flooring of the mosque repaired by Karahans in the 11th century [35].

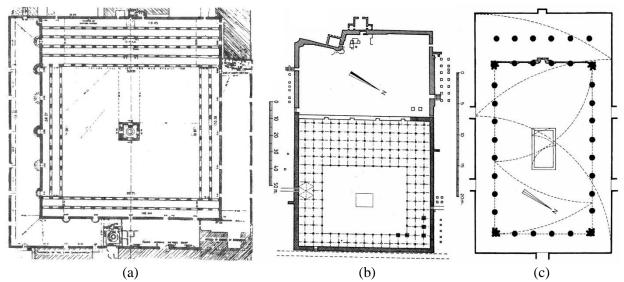


Figure 12. (a) Plan of Tolunoğlu Ahmet Mosque [15], (b) Restitution Plan of Semerkand Mosque [35], (c) Restitution Plan of Dandanakan Mosque [35]

The Isfahan Cuma Mosque (Figure 13a), belonging to the Great Seljuks, was first built in the multi-legged Kûfe scheme and converted into an iwaned plan during the Melikşah Period in 1072. The Zevvare Cuma Mosque (Figure 6c), dated 1136, was built with four iwans at once. This was followed by the Ardistan Cuma Mosque (Figure 13b), dated 1160. This scheme, which has become traditional in the Great Seljuks, also appears in later examples, such as the Grand Mosque of Veramin, which was the work of the Ilhanli Period. In these mosques, on the south side of the *harim*, there are a dome in front of the *mihrap* and an iwan in front of the dome, which opens to the courtyard. The courtyard, which evokes a '*mandala*' with the accent of four directions is surrounded by porticoes on three sides, and there is an iwan in the middle of each portico in each direction. At the middle point of the courtyard, where the north-south and east-west axes intersect at a right angle, there is a sacred pool [33]. Shadirvan, which is a water element, became an indispensable component in the mosques belonging to the Atabeyliks Era after the Great Seljuks, and a shadirvan was added during this era to the Emevive Mosque in Damascus, which was built during the Umayyad Period [34].

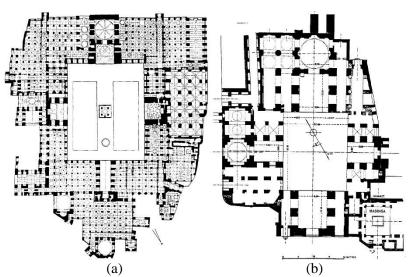


Figure 13. (a) Plan of İsfahan Cuma Mosque [35], (b) Plan of Ardistan Cuma Mosque [35]

5. CONCLUSION

Water, which is one of the indispensable elements for the continuity of life, has always had a vital place in human history. Water, which is processed in different ways by different societies in religion, arts and architecture has become a cult in Turks and has existed in every period in different beliefs, geographies, building types and artworks and so that it has become one of the most important concepts of cultural continuity. Turks who adopted a lifestyle based mainly on animal husbandry shaped their whole life with water until they were fully settled, and unexpected droughts have caused setbacks that were hard to recover from. The fact that water is one of the five sanctities in Shamanism, the depiction of the deceased on the tombstones with a chalice full of sacred water in their hands, that worshipping was done in a high mountain near a river or lake in Tengrism, and establishing the throne of the ruler in the center of a pool show that water is indispensable for religious rituals of Turks.

The concept of central space in Turks before Islam had a wide range of architectural use from tents to palaces, from military cities to temples. Although the most important representative of the central space is the dome, which represents the sky, god, heaven and the universe, the iwan, courtyard and the water element have also been essential components of the central space. The first combination of architecture and water took place in the rulers' palaces with the pool, which is the part of the 'axis mundi' and the expression of world domination. Since the monarch is seen as a representative of God, the ruler's palace is among the places of worship for Tengrism, and therefore, water has been included in palace architecture. Later, as water was put in the center of worship in Manichaeism, it found its place in the murals depicting ground-water worship; and a similar understanding continued after Buddhism was accepted.

In Turks who accept water as part of the 'microcosmos' and '*axis mundi*' and treat it with central space composition as an architectural element, the use of pools or shadirvans has continued as an indispensable cultural element, whether functional or symbolic. In Islam, it is necessary to perform ablution to be free of sins and dirt before all worship, and to come out clean in the presence of God, both materially and spiritually. In the Koran, on the other hand, the foundation of vitality is based on water. Water, which was already sacred to Turks, has continued to be sacred to Muslim Turks due to its spiritual and physical purification feature and has achieved a very high level of representation. The fact that Turks included water in mosques for the first time with the water element placed in the center of the courtyard of Tolunoğlu Ahmet Mosque is a result of this representation.

With the entrance of Turks into Anatolia, water element continued to be used in different types of structures in the Seljuk and Ottoman States. The four iwaned courtyard and the water element in its center of the Great Seljuk mosques, which evokes a '*mandala*', have become smaller after entered in Anatolia as the side iwans

were removed and included in the *harim*; and the pool became a component of the emphasis on the central space together with, dome-iwan-courtyard trio. By the Ottoman Period, the last example of the use of an inside courtyard and the pool-shadirvan in the center of it is seen in Bursa Grand Mosque, and after a while, starting with Edirne Üç Şerefeli Mosque, it was replaced with a courtyard with shadirvan as seen until the end of the classical era.

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