

COMPARATIVE ANALYSIS OF THE VISUAL IMAGES OF TRADITIONAL MOSQUES OVER MODERN MOSQUES

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Abstract

Every civilization produces places that match the life model in its own content. In this context, Islamic Civilization has also built mosques as temples within its own structure. The formation and development of mosque architecture has taken shape by adding some visual images to its architecture with the principles of Islamic Civilization. These images are almost identified with mosque architecture and have been interpreted and included in mosques built all over the world. With the influence of developments in the construction industry and modern architecture, different searches have occurred in mosque architecture. While some of the mosques built in this way are a repetition or a bad imitation of the traditional, some have been transformed to avoid this repetition and have become foreign architectures that are incompatible with the civilization they belong to. Both situations have negative effects on the mosque architecture and led to the reproduction of them of kitsch designs. This study was carried out to read the architecture of the mosques produced with the interpretation of traditional mosque architecture, rather than repetition in different geographies of the world, and in order to question whether they meet the expectation of mosque architecture. In this context, a survey technique was applied to a population of 100 people, 32% of whom were architects and 96% were Muslims. The data obtained from the survey results were analyzed and evaluated in the SPSS program. Thus, the place and importance of the architectural images of traditional mosques in mosque architecture, the existence of these images in modern mosques, and the meanings of traditional-modern lines in mosques have been examined. It is thought that this study, which was prepared by using a questionnaire about 22 modern mosques selected from different geographies of the world, will contribute to the development of mosque architecture without repetition and losing its identity.

Key words: Mosque, traditional mosque, modern mosque, visual perception

1. Introduction

When considering Islamic architecture, undoubtedly the first building group that comes to mind is mosques. Just like the cathedrals of Medieval Europe, the shopping malls and skyscrapers of Modernity, Islamic Civilization has been identified with mosque structures. The fact that mosques were built in places that dominate the topography and silhouette in Islamic cities or in areas that are valued by the society of that civilization is due to the fact that mosques are the symbolic structure of Islamic Civilization (Ökten, 2012). Both the fact that it was built with complexes that functionally center the daily actions of individuals belonging to the concept of Islamic civilization, and the fact that it formally reflects the values of civilization, is one of the proofs that this building group is the symbolic structure of Islamic civilization.

Mosques have developed by successfully reflecting the values of the civilization of which they are a symbol. In this context, it is possible to read the values of the concept of Islamic civilization in all visual images of mosque architecture. The embodiment of these visual images in the architecture of the mosque, their formation, has always been due to the presence of these principles behind it. Thus, every mosque built regardless of climate and geography, all over the world, contains certain architectural images. With these images from the exterior to the interior, it is understood whether a building is a mosque or not. Therefore, besides their functions, these architectural images add identity to mosque architecture with their formation and even their positioning in the city.

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In to envision of Islamic Civilization, which includes the concept of “presence” as a whole, although its main function is worship, mosques are positioned at the center of social complexes that take place in life and include functions such as health, education, social and trade. These complexes, on the other hand, were located in the center of the city and formed a kind of meeting places. However, the lifestyle that has changed over time has also changed the growth factors of cities, and in parallel, the location of mosques in the city has also turned into compared to the past. The mosques of the cities that have been transformed over time have inevitably begun to change.

The technology that has developed from the past to the present has also affected the construction industry, in addition to the ease of construction, opportunities such as an increased range of materials have also been acted on the shape of buildings. In this way, new searches have occurred in the formation of the structural elements of mosque architecture. According to Cansever's (2005) evaluation of mosque architecture in Turkey, when the modernist Turkish architecture of the Republic excluded mosque architecture, mosque architecture emerged spontaneously based on this need in society. However, when this anonymous production in the modernist era was not applied according to norms of the Islamic civilization conception as in the past, an architecture emerged that turned into “kitch” production. Thus, the mission of conveying the meaning of mosque architecture has been reduced to schemas and loaded into the form patterns of the past. With this reverse sensitivity, while the relationship with the past was brought to the fore, a false continuity was created by reducing it to certain patterns. On the other hand, in Turkey and in the world, apart from such a repetition architecture, modern mosques are also being built for the purpose of making original mosques. Since making a building that is the product of a 1400-year-old civilization will not be independent of that civilization, some formations are made in order to preserve the identity of the building. While doing this, the fine line of not imitating while avoiding repetition should be preserved. Because, when the original architecture in the past period is built again in the same way despite the developing conditions and situations, users will experience boredom and dissatisfaction. In this study, it was examined whether modern mosques created with an approach rather than a repetition contain imitations and whether they contain inconsistencies due to an element belonging to a different civilization that it has.

In this study, examples of contemporary mosque architecture created within the scope of modern architecture were research and examined in the context of images (mihrab, minaret, dome etc.) of traditional mosque architecture. By choosing examples from contemporary mosques built around the world and examining their visual images, the similarities and differences with traditional mosques were revealed by the users. For this purpose, in the study, user opinions were taken using the survey technique and visual effect of contemporary mosques were viewed.

With the search for forms in modern mosque architecture, mosques have begun to be built in forms that are very different from the traditional line. However, these forms sometimes prevent the perception of mosques in the buildings. Yet, experiences are used in the perception of every work of art like mosques. In the dictionary of psychology, perception is defined as a subjective experience, while it is stated that it can change depending on a person's experiences, beliefs, needs, internal and external factors affecting attention. In the formation of the mosque perception, in addition to personal memory and experiences, social memory created by cultural accumulation is also effective. In this context, it is important to comparatively read the traditional mosque images in people's memory over modern mosques and to analyze how close modern mosques can be to the mosque image in people's memory through a survey study. Care was taken to include people of all ages, genders, educational backgrounds and professions in the survey. It is thought that this study will create a data in new mosque designs.

2. Literature Review

2.1. The Process of Development of Mosque Architecture

The most important function of mosques in Islamic civilization is to be places where prayer is performed collectively (Burckhardt, 2009). While prayer is one of the most important worships in Islamic sources, the criteria for the place of worship are not found in the Qur'an, the main source of Islam. However, according to the practices of the Prophet Muhammad (pbuh), the other main source of Islam, and the fact that the prophet built and used his Message, members of Islamic civilization shaped the mosques they built. In this respect, based on Hz. Muhammad's (pbuh) Masjid, one can talk about a development in mosque architecture. This development was reflected in the architectural images both inside and outside the mosque. In addition

to the obligatory elements required by the actions performed in the use of places of worship, mosques were created in Islamic civilization with forms reflecting civilization.

The mosques built within the body of Islamic Civilization were built by the Prophet of Islam and developed with the reference of Masjid an-Nabawi, which he personally participated in the construction. In Arabic, the word "Nabawi" means "belonging to the prophet" and "Masjid an-Nabawi" means the Prophet's Mosque (Salimi, 2013). Just like the life of the Prophet, which is the second main source of Islamic resources, his mosque was the first starting point of the later mosques, and moreover, it was the biggest source.

Considering the importance of performing the prayer in the first line (in the row) in Islam, it is thought that the rectangular plan of the sanctuary is preferred in order to make room for those who want to perform their prayers in the first place, regardless of race or rank. Thus, in Muslim mosques, in contrast to the longitudinally located surfaces of Christian basilicas, a plan has been formed that will be from the depth to the height that will allow you to keep the first lines crowded (Stierlin, 2008). Masjid an-Nabawi (Fig.1) was built from date palm logs with a plan that developed as longitudinally as possible, and the upper part of the sanctuary was covered with palm branches to provide shade (Ateş, 1994).

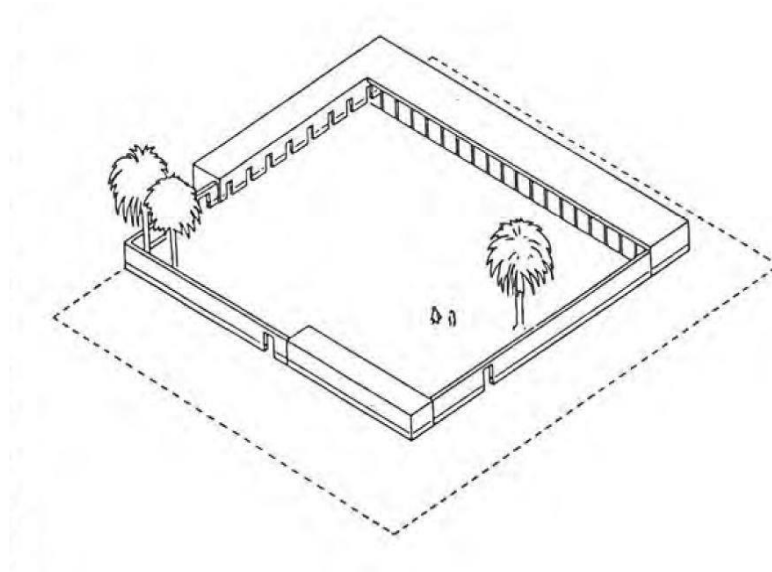


Fig. 1. The First Status of Masjid an-Nabawi (Hillenbrand, 2013)

The rooms of the wives of the Prophet of Islam (pbuh) were located in the southeastern part of the courtyard of the Masjid an-Nabawi, and the suffa, which belonged to the poor Muslims who made science, was located in the southern side (Dündar, 2018). By turning the qibla from Masjid al-Aqsa towards the Kaaba, the Harim section was taken from north to south, and the suffa section from south to North (Ateş, 1994). In addition, there was a well in the middle of the courtyard of the Prophet's Mosque for Muslims to perform ablution and meet their water needs when necessary (Dündar, 2018).

A place called "Mi'zene-Minaret" was built for Bilal Habashi, who was in charge of reciting the Azan at the back of the Masjid an-Nabawi (Fatih, 2011). This section was made as a high place so that the sound of the Azan could reach more places, and it was used as a place where all muezzins read the Azan.

In the interior architecture of the Masjid an-Nabawi, a symbolically placed stone on the qibla wall and the palm stump on which the Prophet leaned while reciting the sermon draw attention. As the congregation grew over time, a stepped platform was built in order to establish eye contact with the congregation, and the Prophet went to this platform and preached (Akbulut, 2017).

Masjid an-Nabawi, beyond its mere function of worship, had an importance such as being a center of education, gathering and meeting. After the Prophet (pbuh), the mosque in question was enlarged during the Caliph Omar period and continued to be the place where decisions about the state were taken and consultations were held (Akbulut, 2017).

The need to build mosques all over the world arose in the Islamic geography that grew with the conquests. Mosque constructions, which started in the Arab geography in the first place, always carried traces of the main formations of Masjid an-Nabawi. These traces are seen in Damascus Umayyad Mosque, Qibla Masjid, Cordoba Mosque, Samara Ulu Mosque, Kufe Mosque, Ibn Tolun Mosque, Cairo El Azhar Mosque and El Hakim Mosques, which were built in different geographies in different periods and accepted as a touchstone in the development of mosques by architectural historians. The plans of these mosques are shaped by their rectangular courtyards surrounded by porticoes, and the courtyards' harem with mihrab and minbar in the direction of the Qibla. In later periods, similar lines are found in all the great mosques in Anatolia. In addition, complexes have been formed with the spatial planning of the Masjid an-Nabawi, which includes functions such as education, social, management, and gathering (Fig. 2). The mosque architecture, which is in constant development with the inspiration taken from the Masjid an-Nabawi, has created certain architectural images over time and has determined the identity of the mosque architecture with these images.



Fig. 2. The Present Status of Masjid an-Nabawi (URL-1, 2022)

2.2. Visual Images of Traditional Mosques

All the visual arts of the mosque are nothing more than a plastic expression of the main goal of the Islamic faith; in this context, all the arts of Islam take people to the mosque and the mosque to worship (Garaudy, 2019). Mosques, which are the symbolic structures of Islamic Civilization, have developed with their monumental architecture and visual images included in the interior and exterior space according to the use of the Prophet's Mosque. While the exterior contains images such as a courtyard, ablution fountain, and minaret, sections such as the latecomers' portico, mihrab, and minbar have been added in the interior. The mosque architecture, which has been shaped in a monumental framework as the symbolic structure of Islam in the all Islamic geography, has developed by adding these visual images to the mosque typology. In this context, it is possible to see different interpretations of the same visual images in different Islamic geographies. In fact, the presence of Muslims in a city is noticed from mosques, and mosques by having visual images such as domes and minarets. Today, minarets are included in the formation of mosque architecture due to their symbolic meaning and value rather than their functional features.

Mihrab: The direction of the Muslim community in prayers is towards the Kaaba, which is accepted as the first mosque of the world in the Islamic Civilization Conception. In this way, all mosques are oriented towards the Kaaba, and there is a 'mihrab' section in their interiors that points this direction. This section has passed into the mosque architecture of Islamic Civilization as a niche on the qibla walls of mosques for the imam to stand while leading the prayer (Hasol, 2008). Islamic architecture applied the mihrab element for the first time in the renovation made in Masjid an-Nabawi. Muhammad (pbuh) led the prayer- for the purpose

of honoring – was carried outwards and reflected on the form of the structure, creating a niche for the mihrab (Grabar, 1987). After that, a mihrab was added to every mosque built as a sign of worship in this mosque, as the Prophet Muhammad worship. Different mihrab examples from different geographies are shown in figure 3.



Fig. 3. (Left) Sultan Hassan Mosque / Egypt (URL-2, 2022), (Middle) Great Mosque of Cordoba / Spain (URL-3, 2022), (Right) Esrefoglu Mosque / Konya (Tugba Yeşil)

Minbar: The minbar, located just to the right of the mihrab in the mosque, is the high part where the sermon is read on Friday and Eid prayers (Sülün, 2020). The minbar, has taken its place in Islamic mosques by being inspired by the Masjid an-Nabawi, just like the mihrab, and by interpreting the step-chair tradition that the prophet used while addressing the believers (Burckhardt, 2009). In the minbar shaped according to this interpretation, the orator does not go up to the top step of the minbar. Because the highest step contains a symbolic meaning left to the personal spirituality of the Prophet Muhammad (phub) (Duman, 2015). Different minbar examples from different geographies are shown in figure 4.



Fig. 4. (Left) Bezmialem Valide Sultan Mosque / Istanbul (URL-4, 2022), (Right) Kılıç Ali Pasa Mosque / Istanbul (Esmâ Kışmıroğlu)

Minaret: Muslims show great significance to the worship of prayer, which is of great importance in the conception of Islamic Civilization. In this condition, the prayer times performed at certain times are important and ‘minaret’ is added to mosques as an addition venue to inform of these times and to call Muslims to prayer with the congregation. Minarets, which are structures such as tall towers next to mosques, visually affect the city skyline with their shapes, while they also show the Islamic presence in the city audibly by reading the five times azan in a day. Different minaret examples from different geographies are shown in figure 5.



Fig. 5. (Left) Üç Şerefeli Mosque/ Edirne (URL-5, 2022), (Middle) Hasan II Mosque / Morocco (URL-6, 2022), (Right) The Umayyad Mosque / Damascus (URL-7, 2022)

Dome: The building cover, which is shaped like a sphere cap, hemisphere or a globular cupola; It is the cover formed by the rotation of an arch around the vertical descending from the apex of its arc (Hasol, 2008). When domes, which are classified separately according to their geometric shapes, load-bearing properties and materials (Altın, 2010) are used as symbolic images in the history of architecture, it is seen that the perception of the dome in the exterior is often not reflected in the interior. However, it is seen that the perception of the dome in Ottoman buildings dominates the interior as well as the exterior (Kuban, 2007).

The dome cover, which allows the congregation to gather in a single volume in mosques (Ülken, 1948) which are the symbolic structures of Islam, also contributed to the development of central planning in mosque architecture. The central plan type is important in shaping mosques as "spiritual (unmediated) architecture", the symbolic structure of Islam, which rejects all kinds of intermediation between "ALLAH" (God) and human (Garaudy, 2019). Different domed mosques examples from different geographies are shown in figure 6.



Fig. 6. (Left) The Dome of the Rock / Jerusalem¹ (Yasir Gürbüz), (Middle) New Mosque and Nuru Osmaniye Mosque / Istanbul (Cansever, 2005), (Right) Sheikh Lotf Allah Mosque / Iran (URL-8, 2022)

For domes used with different interpretations in different geographies, Necipoğlu; In his study on the Sinan Mosques of the Ottoman Empire, he gave the dome size as an "adab code". Accordingly, the largest dome diameters above 20 meters are available in mosques in Istanbul and Edirne built by members of the Ottoman dynasty (Necipoğlu, 2013).

Courtyard: The courtyard, which is defined as a closed, open-top area in the middle of a structure or group of structures (Hasol, 2008) existed before the minbar and mihrab images were fully developed in Masjid an-Nabawi, the starting point of mosque architecture. Hz. Muhammad's house, covered with an adobe wall, opened into a courtyard that was located the Masjid an-Nabawi (Cansever, 2005).

Courtyards, which are used as a kind of preparation place in mosques, are semi-open areas where prayers are also held when the crowded congregation during Friday and Eid prayers cannot fit into the interior of the mosque (Duyşak, 2000). In addition, the fountain places where ablution is taken, which is an application

¹ The Dome of the Rock, although referred to as a "place of visit" in some sources, is also referred to as a mosque in terms of function as Friday prayers are held inside.

belonging to the preparation stage for prayer, are mostly located in the courtyards. Different courtyard mosques examples from different geographies are shown in figure 7.



Fig. 7. (Left) Selimiye Mosque / Edirne (URL-5, 2022), (Right) Ahmad İbn Tulun Mosque / Egypt (Hattstein & Delius, 2004).

Latecomers Portico: It is the part between the courtyard and the entrance door of the mosque that is roofed in but can open on the sides. The latecomers portico, which is used with a portico in traditional mosque architecture, also has the function of protecting those who are late for prayer or those who go outside during peak times of the mosque, from adverse outdoor conditions. Latecomers portico examples from different geographies are shown in figure 8.

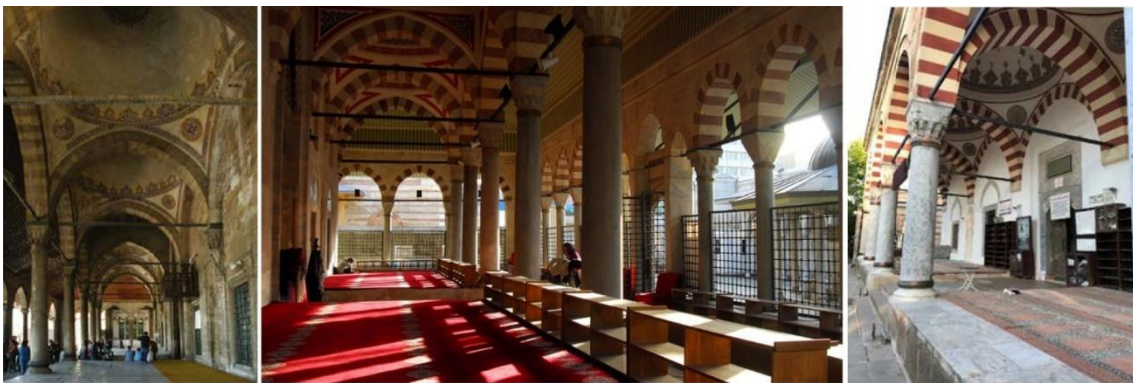


Fig. 8. (Left) Üsküdar Mihrimah Sultan Mosque / İstanbul (Cansever, 2005), (Middle) Eskişehir Kurşunlu Mosque / Eskişehir (Esmâ Kışmıroğlu), (Right) Kılıç Ali Paşa Mosque (URL-10, 2022)

3. Methods

Due to their symbolic significance within civilizations, mosques possess architectural visual images that reflect the values of Islamic civilization. While these visual images, as described in the previous section, may exhibit variations based on regional interpretations, they can be observed in mosques worldwide.

Just as the interpretation of these images varies due to cultural differences in different regions, changes in living conditions over time have also resulted in specific formal differences in mosque architecture. Specifically, the influence of modernity on a global scale, impacting people's capabilities and lifestyles, has led to changes in mosques, similar to other structures. These changes, stemming from new aspirations and gradually deviating from traditional norms, have occasionally given rise to entirely different forms and shapes in mosques. At times, these new forms adhere to a specific style, while at other times they venture outside established conventions. This situation can impede the accurate interpretation of the building and cast doubt on its identity.

The objective of this study is to examine the evolving mosque architecture influenced by modern architectural trends. This examination will be conducted through the analysis of visual images that reflect the historical and cultural context of the mosques. An attempt has been made to analyze these crucial visual images, which contribute to the identity of mosques, based on their presence or absence in mosques and their

perceptibility. This analysis was carried out through a survey involving 100 individuals residing in Turkey, where examples of mosques exist both before and after the influence of modernity. The choice of 100 participants was important to obtain more clear data for comparison, interpretation, and a representative understanding of the findings.

The questionnaire includes questions that will reveal how the newly formed mosque architecture is read from the eyes of the users through the formation of 22 different mosques, shown in Tables 1 and 2. In this regard, it has been tried to reveal whether the traditional mosque architecture includes traditional images and the effects on the user, through the mosque samples selected with a participant ratio of 32% architects/interior architects.

The questionnaire consists of three parts. In the first section, users were inquired to specify the demographic information and the three concepts that come to mind when it comes to mosque architecture. In the section where there are visual questions, there are questions about 22 examples of mosques (Table 1- 2) built in the world under the influence of modern architecture in the last century. By sharing several images belonging to each mosque, the first series of questions was made up on the readability of architectural images in traditional mosque architecture on the existing mosque. The other visual question series is based on adjective trilogies. Thus, the participants were provided to evaluated with a trilogy of positive, negative, neutral adjectives on the architecture of each mosque. For the survey, examples of mosques, in which an effort to bring an interpretation to the traditional, by avoiding the repetition of Traditional Mosque architecture, under the influence of modern architecture, were chosen.

Table 1. The list of Mosques Numbered 1-12, Presented in the Survey with the Numbering Method























		
		
		
		
		

Table 2. The list of Mosques Numbered 13-22, Presented in the Survey with the Numbering Method

 <p>13-Yaşamkent Mosque 2015/Turkey (A Architectural Design)</p>	 <p>14-Mogan Lake Mosque 2006/Turkey (Hilmi Güner)</p>
 <p>15-AI-İkhlâs (Honeycomb) Mosque 2020/Indonesia (Andyrahman Architect)</p>	 <p>16-Abdul Rahman Daing Mosque 2019/Malaysia (Razin Architects)</p>
 <p>17-AI-Ansar Mosque 2015/Singapore (ONG&ONG Pte Ltd)</p>	 <p>18-Hikma Mosque 2018/Niger (Atelier Masomi, Studio Chahar)</p>
 <p>19-Punchbowl Mosque 2017/Australia (Candalepas Associates)</p>	 <p>20-Qasr Al Hosn: AI Musallah Mosque 2019/ United Arab Emirates (CEBRA)</p>
 <p>21-Amir Shakib Arslan Mosque 2016/Lebanon (LEFT Architects)</p>	 <p>22-AI-Islah Mosque 2015/Singapore (Formwerkz Architects)</p>

There are comparative questions in the last part of the questionnaire. Accordingly, among the 22 mosques in the list, the participants preferred the architecture of mosques that they liked the most and not like. In the last part, the participants preferred the mosques that they found closest and farthest to the traditional mosque. Thus, the visual effects of the most liked or disliked mosques will be questioned through their relations with traditional mosques.

The demographic findings of the questionnaire applied to 100 people within the scope of the study are given in Table 3. While 59% of these 100 people are between the ages of 26-40, 64% are women and 36% are men. 89% of the participants have undergraduate and postgraduate education, and 32% of them are architects and interior architects (Table 3).

Table 3. Findings of the Questions Regarding the Demographic Structure of the Survey

Education	Percent	Profession	Percent	Age	Percent	Religion	Percent
Primary School	1%	Official	4%	0-18	1%	Muslim	96%
High School	7%	Worker	5%	19-25	16%	Deist	2%
Associate Degree	3%	Retiree	5%	26-40	59%	Ateist	1%
Bachelors Degree	55%	Self Employment	6%	41-60	20%	Other	1%
Post-Graduate	34%	Academician	7%	61-up	4%		
		Student	7%				
		Architect	32%				
		Other	34%				
				Gender	Percent		
				Female	64%		
				Male	36%		

The participants were asked "What are the 3 concepts that first come to mind when you think of mosque architecture?" in the question of 64% minaret, 58% dome, 12% minbar, 11% mihrab and 11% courtyard answers were taken. These concepts are the most compatible concepts with the mosque architecture for the participants. The participants mostly listed the concepts related to the interior and exterior architectural images of mosques, and the minaret element was preferred more than the dome. Apart from architectural images, abstract concepts such as 5% peace, 4% Decency, 3% spirituality, 1% spirituality are also among the answers to this question. In addition, the answers of 7% of the participants to Architect Sinan, 4% Ottoman, 3% Sultanahmet Mosque, 2% Suleymaniye Mosque and 1% Selimiye Mosque were also observed as an indicator of the tendency of the mosque image to traditional mosques.

The answers of the participants in the questionnaire were analyzed in the SPSS program. The fact that the number of participants was 100 people caused the frequency and percentage ratio values in the SPSS program to be equal. Accordingly, the findings about the presence of architectural images in the preferred mosque samples in the visual questions section of the survey are shown in Table 4. According to the findings in Table 4, the most perceived architectural images of the mosques in the survey were the minaret, mihrab, minbar/lectern, dome, courtyard and finally the latecomers' portico, respectively. This situation also shows that as an architectural element, architects also use the minaret the most among the images belonging to traditional mosques.

4. Findings

According to the survey results, some of the visual images present in traditional mosque architecture are absent in some mosques. In these mosques, there are some that have visual images asked in the survey but cannot be perceived by the participants, and there are also mosques where the architect does not use this visual element. Thus, while the traditional visual images in question are not present in some mosques, some of the existing ones cannot be read. For example, according to the survey results, the minaret element is not perceived in the TBMM, Sancaklar, Punchbowl, Qasr Al Hosn and Al Musallah Mosques. Whereas, the minaret element was not used in the TBMM Mosque and Punchbowl mosques, while the formations of the minaret were used in the Sancaklar, Qasr Al Hosn and Al Musallah Mosques. However, mosques have had difficulties in reflecting the images of traditional mosques in the modern line they dominate. The same is true for the mihrab. The mihrab was not made as a niche only in the mosque numbered 19. But according to the results of the survey 1, 2, 10, 15, 18, 20, 21, 22 the mihrab niches that exist in numbered mosques are not perceived by the participants. Again, it was thought that this situation was caused by the fact that the mihrab element, which settled in the minds with a traditional image within the modern concept that dominates mosques, was not presented with the correct interpretation (Table 4).

Looking at the findings on the existence of architectural images it is seen that mosques number of 8 and 9 contain all the traditional images of mosque architecture and are perceived successfully.

Table 4. Statistical Data on the Architectural Images of Mosque Samples

Mosque	Dome		Minaret		Latecomers's Portico		Courtyard		Mihrab		Minbar	
	Frequency	Mean	Frequency	Mean	Frequency	Mean	Frequency	Mean	Frequency	Mean	Frequency	Mean
1	50	1.50	6	1.94	46	1.54	79	1.21	39	1.61	44	1.56
2	13	1.87	39	1.61	25	1.75	26	1.74	42	1.58	55	1.45
3	7	1.93	85	1.15	27	1.73	22	1.78	82	1.18	83	1.17
4	88	1.12	84	1.16	47	1.53	19	1.81	90	1.10	92	1.08
5	44	1.56	82	1.18	22	1.78	11	1.89	85	1.15	83	1.17
6	41	1.59	67	1.33	74	1.26	55	1.45	83	1.17	86	1.14
7	84	1.16	69	1.31	36	1.64	26	1.74	71	1.29	39	1.61
8	98	1.02	94	1.06	78	1.22	90	1.10	81	1.19	85	1.15
9	100	0.00	97	1.03	77	1.23	80	1.20	95	1.05	94	1.06
10	8	1.92	85	1.15	10	1.09	26	1.74	23	1.77	21	1.19
11	76	1.24	96	1.04	57	1.43	40	1.60	90	1.10	91	1.09
12	34	1.66	94	1.06	35	1.65	47	1.53	58	1.42	57	1.43
13	79	1.21	80	1.02	35	1.65	30	1.70	73	1.27	68	1.32
14	8	1.92	54	1.46	31	1.69	26	1.74	76	1.24	71	1.29
15	4	1.96	50	1.05	14	1.86	10	1.90	25	1.75	11	1.89
16	10	1.90	55	1.45	57	1.43	54	1.46	58	1.42	38	1.62
17	78	1.22	71	1.29	33	1.67	22	1.78	76	1.24	33	1.67
18	32	1.68	64	1.36	34	1.66	47	1.53	39	1.61	33	1.67
19	77	1.23	11	1.89	39	1.61	56	1.44	21	1.79	14	1.86
20	15	1.85	28	1.72	13	1.87	15	1.85	18	1.82	8	1.92
21	19	1.81	53	1.47	40	1.06	50	1.50	42	1.58	19	1.81
22	36	1.64	51	1.49	48	1.52	46	1.54	31	1.69	18	1.82

In Table 4, besides the frequency value showing the frequency of finding the architectural element, average values are also given. According to this, values below the mean of 1.5 were painted. These values show the mosques that are believed to have the architectural element asked in the survey. Accordingly, the most frequently used architectural images in mosques were the minaret, mihrab, dome, courtyard, and latecomers' portico. While mosques 8 and 9 contain all architectural images, mosque number 20 does not contain any traditional images. In addition, at least four of the selected architectural images were read in the mosques numbered 4,6,11,13,16. But only one of the selected architectural images was read in the mosques 1,2,15,18, 21 and 22.

In the second question series of the visual part of the questionnaire, which is the adjective scoring part, the participants were asked to score the preferred mosque samples according to the opposite adjective triad of positive, neutral and negative adjectives. The findings of this section are indicated in Table 5 by giving frequency values. The questionnaire was created by giving the participants 1 point for positive adjectives, 2 points for neutral adjectives, and 3 points for negative ones. Values where the frequency value is above 50 show above 50% and are expressed by coloring in the table. Accordingly, positive adjective pairs over 50 are colored blue, and negative adjective pairs over 50 are colored orange. In this context, when the table is examined, it is seen that the mosques numbered 4 and 9 have passed the 50% threshold in all positive adjectives. The frequency values of the positive adjectives belonging to the mosque number of 4 are higher than the mosque number 9. After the mosque number 4 and 9, the mosques with the most positive adjectives are the 8 and 11 mosques, followed by the 12 and 13 mosques. Mosques in which the most negative adjectives are preferred are mosque number 20, followed by mosque number 2. In mosque number 20, 11 of 14 adjective indexes were evaluated negatively, and in mosque number 2, 4 of them were evaluated negatively (Table 5).

Table 5. Frequency Values of the Classification of Mosque Samples According to Adjective Sequences

Adjectives	Frequencies Values																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Magnificent	18	30	15	78	6	16	17	62	72	15	62	35	28	6	15	38	17	35	24	22	12	29
Neither	51	24	49	17	40	54	43	31	26	28	28	37	60	17	40	47	53	30	55	36	33	42
Plain	31	46	36	5	54	30	40	7	2	47	10	28	12	77	45	15	30	35	21	42	55	29
Spacious	39	21	19	88	10	30	15	74	85	24	63	60	52	38	12	46	27	25	29	14	30	24
Neither	39	23	51	11	40	51	41	19	14	37	29	27	38	37	48	40	53	41	41	33	44	39
Gloomy	22	56	30	1	50	19	44	7	1	39	8	13	10	25	40	14	20	34	30	53	26	37
Inviting	29	26	22	79	12	21	32	48	72	13	55	28	35	21	13	32	11	38	24	22	28	14
Neither	41	35	51	17	63	55	43	41	24	36	29	49	50	38	36	51	61	37	35	30	47	46
Repulsive	30	39	27	4	25	24	25	11	4	51	16	23	15	41	51	17	28	25	41	48	25	40
Transparent	22	16	14	82	6	25	15	60	69	13	52	51	50	22	11	36	16	18	12	7	22	18
Neither	46	24	50	15	48	55	46	33	29	37	34	32	40	43	46	41	55	34	44	27	46	43
Covered	32	60	36	3	46	20	39	7	2	50	14	17	10	35	43	23	29	48	44	66	32	39
Collective	24	20	21	64	16	26	19	45	64	17	46	33	25	16	15	26	20	33	27	13	31	16
Neither	50	37	45	29	58	46	52	42	24	36	37	37	52	38	44	50	53	35	40	28	42	50
Individual	26	43	34	7	26	28	29	13	12	47	17	30	23	46	41	24	27	32	33	59	27	34
Easily Detectable	23	19	42	71	38	45	35	72	78	13	58	34	43	31	16	32	27	33	21	13	19	17
Neither	39	28	34	25	39	37	37	20	20	27	26	42	45	40	34	40	47	37	33	20	45	36
Complicated	38	53	24	4	23	18	28	8	2	60	16	24	12	29	50	28	26	30	46	67	36	47
Aesthetic	40	42	24	72	18	20	36	41	66	20	41	30	28	28	14	29	14	46	19	30	33	14
Neither	39	33	37	21	48	46	39	41	28	32	33	38	51	29	35	48	51	27	39	17	36	34
Shapeless	21	25	39	7	34	34	25	8	6	48	26	32	21	43	51	23	35	27	42	53	31	52
Moderate	27	20	23	60	15	20	28	41	59	17	39	23	27	24	16	27	21	37	13	17	25	15
Neither	43	40	50	34	55	48	50	46	38	32	43	46	51	37	41	50	53	37	51	32	49	40
Strict	30	40	27	4	30	32	22	13	3	51	18	31	22	39	43	23	26	26	36	51	26	45
Enough	35	34	24	59	17	30	26	57	62	20	46	31	27	25	18	31	20	36	22	20	19	22
Neither	42	30	43	35	50	47	52	35	37	31	38	43	58	33	31	46	50	34	33	28	55	40
Insufficient	23	36	33	6	33	23	22	8	1	49	16	26	15	42	51	23	30	30	45	52	26	38
Soft	21	12	19	57	11	15	16	44	51	11	28	19	18	21	12	19	16	20	10	14	24	14
Neither	46	45	43	34	48	46	52	47	41	33	44	48	56	36	39	53	52	43	49	28	49	38
Hard	33	43	38	9	41	39	32	9	8	56	28	33	26	43	49	28	32	37	41	58	27	48
Bright	41	9	17	88	10	32	20	76	81	23	69	66	61	37	24	39	23	25	20	11	38	31
Neither	41	26	51	10	47	50	44	19	18	41	23	22	28	36	48	39	55	43	41	26	37	42
Dark	18	65	32	2	43	18	36	5	1	36	8	12	11	27	28	22	22	32	39	63	25	27
Peaceful	32	24	22	60	13	23	20	44	65	18	34	32	40	28	10	24	16	37	17	16	28	19
Neither	42	34	54	36	59	56	59	43	33	40	54	48	47	46	53	60	60	30	50	30	46	45
Uneasy	26	42	24	4	28	21	21	13	2	42	12	20	13	26	37	16	24	33	33	54	26	36
Elegant	36	32	25	65	15	18	29	31	57	18	31	33	27	29	11	28	15	40	18	23	30	14
Neither	44	40	46	27	58	55	45	51	38	35	44	40	53	37	43	53	55	32	41	23	43	43
Rough	20	28	29	8	27	27	26	18	5	47	25	27	20	34	46	19	30	28	41	54	27	43
Compatible	36	32	25	60	18	26	26	44	59	17	37	25	27	26	10	23	20	41	22	22	31	18
Neither	43	36	41	31	56	52	49	38	39	34	41	47	52	36	41	45	51	30	41	32	40	40
Discordant	21	32	34	9	26	22	25	18	2	49	22	28	21	38	49	32	29	29	37	46	29	42

According to the comparison questions, which is the last part of the survey, the participants made a ranking among 22 mosques according to certain criteria. The frequency values of the three most liked and least liked mosque ranking results, which are the first two questions of this section, are indicated in figure 9. The frequency values of the mosques with the most likes are shown in blue, and those with the least likes in orange. According to this, the most admired mosque is the 4th mosque with 29 frequency values, then the

9th mosque with 17 frequency values, and the third place is the 18th mosque with 11 frequency values. The participants in the survey indicated that mosque number of 4 is a successful modern interpretation of the traditional mosque image and that it has a curvilinear form as the reason for choosing the mosque number 4. The reason for choosing the mosque number 9 as the second most admired mosque was stated as the overlap between the traditional mosque image and modern architecture, the mosque's traditional mosque architecture, easy perception, spacious and ostentatiousness, being suitable for mosque culture, and being suitable for classical mosque architecture. The mosque number 18, which is in the third place in the ranking of the most admired, was preferred because of its success in harmony with its surroundings, the use of natural materials, its plain appearance, its arousing curiosity, and an up-to-date solution without ignoring local and traditional.

According to figure 9, the number of 3, 5, 6, 13, 17, 19 mosques were not classified as the most liked mosque by any user.

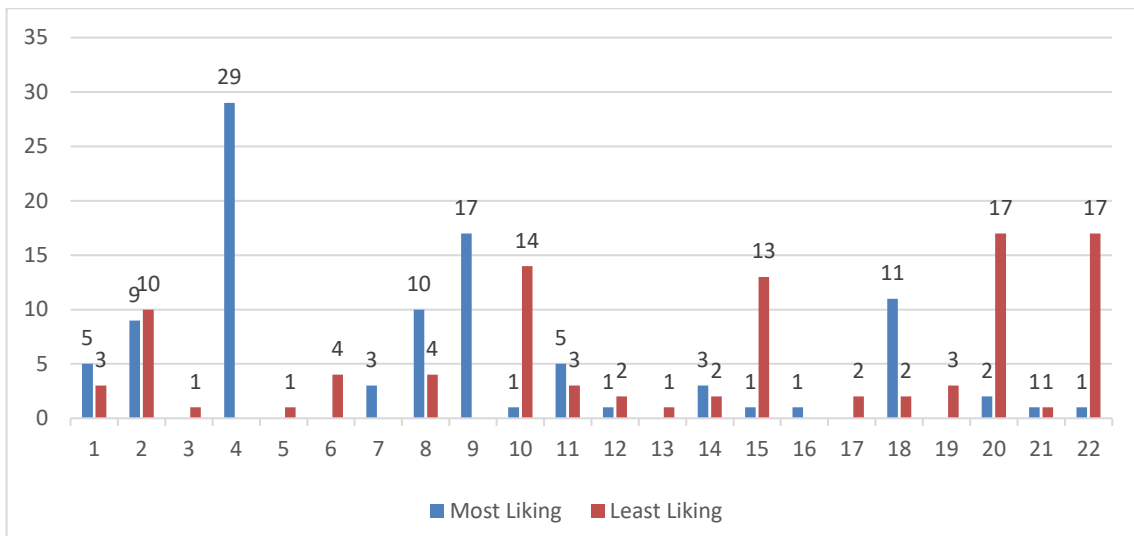


Fig. 9. The Frequency Values of the Most Liked and Most Disliked Mosque Findings

In the ranking of the most disliked mosques, the mosques numbered 20 and 22 are in the first place with a frequency value of 17. These mosques are followed by mosque number 10 with 14 frequency values and mosque number 15 with 13 frequency values. The reasons why the 20 and 22 mosques were most disliked were given as being far from the perception of a mosque and being cold, meaningless, resembling an apartment or shopping mall, being gloomy, disturbing, incompatible and formless. The most repeated one among these reasons was that it was far from the image of a mosque. The fact that it is likened to other structures is proof that it is far from mosque architecture. Mosques numbered 4,7,9, 16 are not included in the most disliked mosque classification by any user.

The last questions of the survey are on the proximity and distance of 22 mosques to the traditional mosque perception, and the ratios of the findings of these questions are given in figure 10-11. According to the findings of the question asking the ranking of the first three mosques closest to the traditional mosque, the mosques 8, 9, 4 and 11 were the most preferred mosques in the ranking of the first three mosques. As the first mosque closest to the traditional, 42% of the participants preferred mosque number 8, 24% preferred mosque 9, and 22% preferred mosque number 4. After of these three mosques, the rate of preference is 3.2 and 1. 88% of the participants chose mosques 8, 9 and 4 in their most traditional ranking. Mosques 5, 6, 10, 12, 10, 13, 14, 15, 16, 17, 19, 20, 22 are not included in the order of tradition. When we look at the second most traditional mosque preferences of the participants, 8,9 and 4 mosques are seen with a rate of 86%. In the third mosque preference closest to the traditional, 85% of the participants in total prefer 8,9,4, 11 numbers.

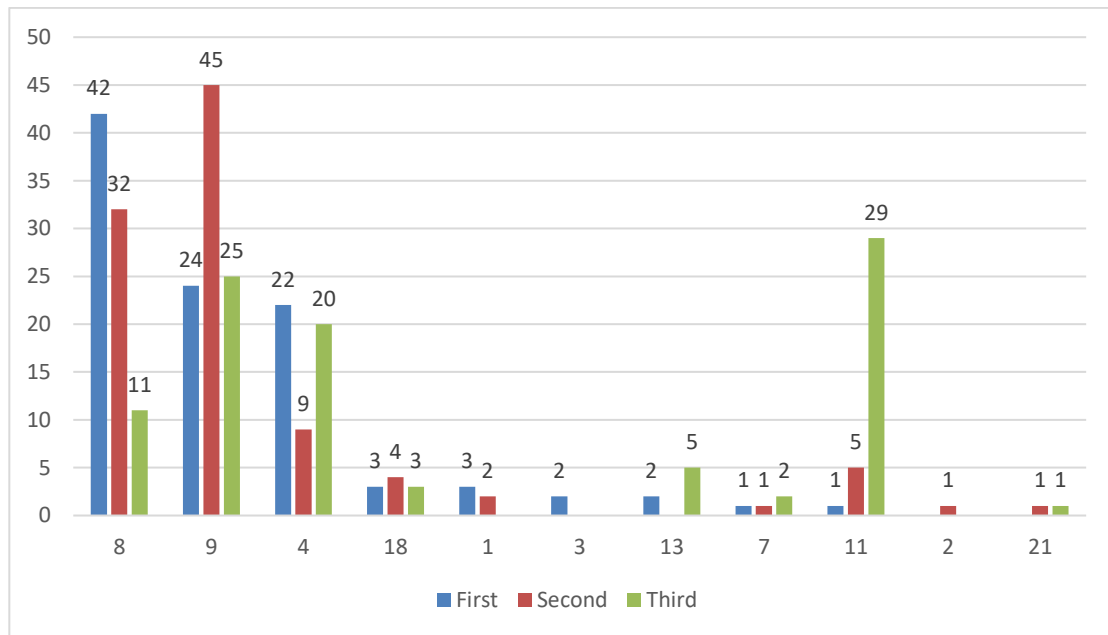


Fig.10. Percentiles of the Ranking of the 3 Mosques Closest to the Traditional Mosque

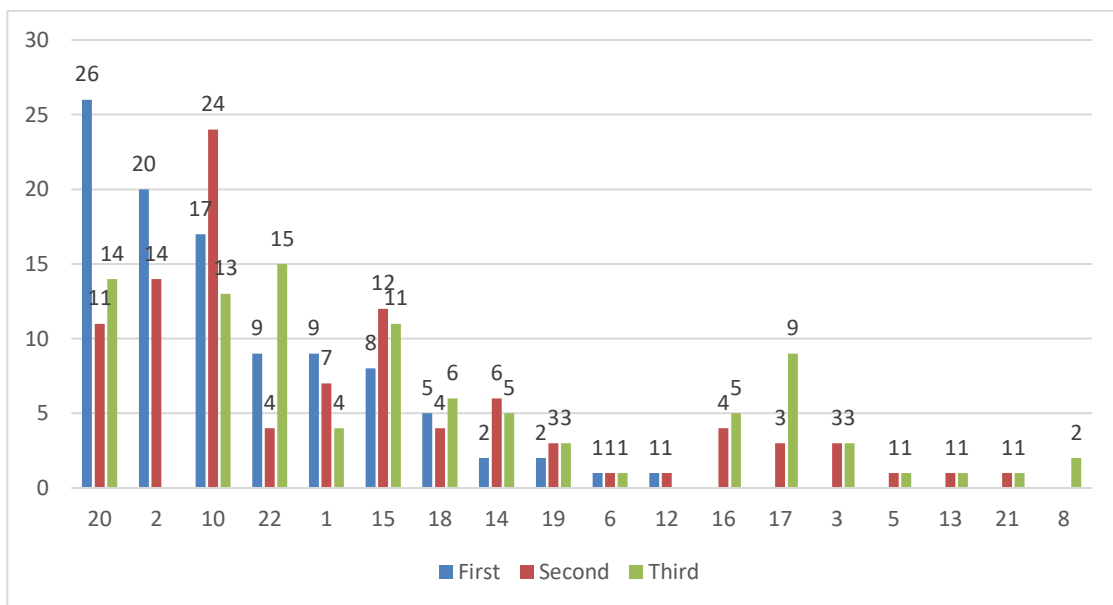


Fig. 11. Percentiles of the Ranking of the 3 Mosques Farthest from the Traditional Mosque

Findings related to the question of ordering the three mosques farthest from tradition are given in Graph 3. According to this, 26% of the participants put mosque number 20, 20% mosque number 2, and 17% mosque number 10 as the most distant mosque from the traditional. These three mosques have never been included in the three most traditional mosque rankings. Mosques numbered 3,4,5,7,8,9,11,13,16,17, 21 are not included in the order of being far from traditional.

In the findings of the questions about traditionality in the survey, it was seen that the mosques preferred closest to the traditional were never included in the order of being away from traditionalism. Likewise, it has been observed that the mosques, which are placed in the order of being the most distant from the traditional, are not included in the order of being traditional at all. While the mosques numbered 4, 9, 11 are preferred as the most traditional mosques at high rates, they are not included in the ranking of the mosques farthest from traditionalism.

5. Conclusion

The fact that 32% of the survey participants consist of architects and interior designers is also an indication that a third of the participants are designers.

In order to see the effect of personal memory and experiences on the formation of mosque perception, the concepts of mosque architecture were first asked in the survey. 64% of the participants ranked the minaret and 58% ranked the dome as the first concept that comes to mind in mosque architecture. In this manner, it has been seen that the concept that is most identified with the mosque architecture is the minaret, and that the preferred modern mosques also contain the most perception of the minaret. It has been observed that the minaret is one of the indispensable images of mosque architecture.

According to the results of the survey, when evaluated according to the adjectives, it was seen that the most liked mosques were the ones in which the most positive adjectives were preferred. As a result of the consistency of the survey answers, it was seen that mosque No. 4 was ranked first in terms of both likes and positive adjectives. It has also been observed that being the closest to traditional mosques is not the most effective concept at the level of appreciation. Because it is not the mosque number 8 in the first place in proximity to the traditional mosque, but the mosques 9 and 4, which are just below it in the ranking, are the most admired mosques. In this context, according to the survey results, the efforts of modern mosques regarding the development of mosque architecture were considered valuable, but it was seen that it was preferable that the traditional image of the mosque within certain norms remained within the limits of protection. It is clear that these protected norms will be provided with forms that can reflect the values of the Islamic Civilization concept behind traditional mosques, beyond a one-to-one repetition of the traditional ones. For it has been seen that the most admired mosques not only contain traditional architectural images, but also interpret the traditional in a modern way.

This study reveals the predicaments of modern mosques in the process they are in. It is a valuable effort to make studies that reject the repetition of traditional mosques and include mosque architecture in a development process. However, since mosques are symbolic structures of a civilization, when the values belonging to the Islamic Civilization to which they belong, are built by ignoring, formations that are far from the perception of mosque architecture emerge. In order to prevent this, the visual images, which are the identity of the mosque architecture, should be interpreted and included in the architecture without repetition. This interpretation should be within a certain discipline and should be built on the values behind mosque architecture and the forms that will reflect them in order to reach an effective result. In this context, the article also revealed the necessity of studying the values behind the formation of Islamic Civilization.

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