Research Article

Physical Planning Approaches of Today's Cemeteries: Kayseri Asri Cemetery Case

Ahmet Moda¹ (ID), **Banu Öztürk Kurtaslan²** (ID)

¹ MSc. Landscape Architect, Parks and Gardens Directorate, Kayseri Metropolitan Municipality, Kayseri, Türkiye.
² Prof. Dr., Department of Landscape Architecture, Faculty of Architecture and Design, Selcuk University, Konya, Türkiye.

Abstract

In this study, planning and design features of cemeteries were investigated by considering the development of cemetery concept in Turks and characteristics that determine the cemetery usage status and form were investigated. In the study, visitors' satisfaction degree of their visits to Kayseri Asri Cemetery in Kayseri City centre which is continuing to grow have been examined.

As a study area, Kayseri Asri Cemetery and the evaluation of the visitor satisfaction survey, firstly the compliance of the cemetery with the planning criteria was examined in general. The survey data of 384 people were analysed with the help of SPSS Statistics program, and the data obtained were presented in graphical form.

At the end of the research, some problems were determined in terms of design in parking lot, pedestrian and vehicle access, reinforcement elements, plant design in Kayseri Asri Cemetery. In addition, it is seen that the majority of the people of Kayseri do not want to spend time other than their use for visiting cemeteries. This situation was caused by the fact that the cemetery was not designed to include park and park-like areas and which may serve passive recreation.

Keywords: Cemetery Design, Cemetery Landscape, Cemetery Planning, Kayseri Asri Cemetery, Cemetery in Turks.

Araştırma Makalesi

Günümüz Mezarlıklarının Fiziki Planlama Yaklaşımları: Kayseri Asri Mezarlığı Örneği

Ahmet Moda¹ iD **, Banu Öztürk Kurtaslan²** iD

¹ Peyzaj Yüksek Mimarı, Park ve Bahçeler Müdürlüğü, Kayseri Büyükşehir Belediyesi, Kayseri, Türkiye.
² Prof. Dr., Peyzaj Mimarlığı Bölümü, Mimarlık ve Tasarım Fakültesi, Selçuk Üniversitesi, Konya, Türkiye.

Özet

Bu çalışmada Türklerde mezarlık kavramının gelişimi dikkate alınarak mezarlıkların planlama ve tasarım özellikleri incelenmiş, mezarlık kullanım durumunu ve şeklini belirleyen özellikler incelenmiştir. Çalışmada, büyümeye devam eden Kayseri kent merkezinde bulunan Kayseri Asri Mezarlığı'nı ziyaret eden ziyaretçilerin memnuniyet dereceleri incelenmiştir.

Çalışma alanı olarak Kayseri Asri Mezarlığı ve ziyaretçi memnuniyet anketinin değerlendirilmesinde, öncelikle mezarlığın genel olarak planlama kriterlerine uygunluğu incelenmiştir. 384 kişinin anket verileri SPSS Statistics programı yardımıyla analiz edilmiş ve elde edilen veriler grafiksel olarak sunulmuştur.

Araştırma sonunda Kayseri Asri Mezarlığında otopark tasarımı, yaya ve araç geçişleri, donatı elemanları, bitki tasarımı açısından bazı sorunlar tespit edilmiştir. Ayrıca Kayseri halkının büyük çoğunluğunun mezarlık ziyareti dışında vakit geçirmek istemediği görülmektedir. Bu durum, mezarlığın pasif rekreasyona hizmet edebilecek park ve park benzeri alanları içerecek şekilde tasarlanmamasından kaynaklanmaktadır.

Anahtar Kelimeler: Kayseri Asri Mezarlık, Mezarlık Peyzajı, Mezarlık Planlaması, Mezarlık Tasarımı, Türklerde Mezarlık.

INTRODUCTION

In Turkish cities, cemeteries have many cultural, ecological and passive recreational functions as well as their physical and psychological effects such as religious functions, peace of mind and hygiene of the city. In European countries, the cemeteries were designed from this perspective and dealt as a priority issue in planning. Cemeteries are areas protected by special protection law, cannot be used for other purposes with the change of zoning plan and they are complementary elements of urban green texture (Özkardaş, 2010). Cemeteries are also large green areas that differ from their surroundings with their dense vegetation (Kumru & Özçalık, 2021) (Uslu, 1997).

This study is intended to investigate the graveyard visits and satisfaction degree of the visitors of Kayseri Asri Cemetery getting bigger in the centre of Kayseri City which is developing and lets in immigrants from the neighbouring cities and where agricultural lands and existing green areas are rapidly transforming into residential and commercial areas. The use of cemeteries in Turkey with the purpose of visit only differs from the west in this respect. This situation will be investigated on Kayseri Asri Cemetery in the study and in addition to the socio-cultural factors that make up this tendency of the users, physical planning approaches of the area and the attitudes of the users related to this will be examined on the sample area.

In the evaluation of Kayseri Asri Cemetery, which is considered as the study area, and in the evaluation of the visitor satisfaction survey, firstly the compliance of Kayseri Asri Cemetery with the planning criteria was examined in general.

Survey data of 384 people were analysed with the help of SPSS Statistics program and the obtained data were presented in graphical form.

The Concept of Grave and Cemetery

Graves and cemeteries are the places that reflect the relationship between the beliefs of society and death (Uslu, 1997). The graves can be defined as the places where the organs and cadavers which completely lose their life functions are broken down by microorganisms in the soil and where there are collectively closed disintegration chambers indicating the burial place of the deceased in accordance with legal and religious rules at appropriate depths that will not harm environmental health.

When the meaning of the word 'cemetery' is examined in different languages, it is possible to have an idea about the attitudes of cultures about death. For example, the word ''cemetery'' in English was derived from the old Greek word ''koimeterion'' which means ''sleeping place''. According to Walter (1993), this concept was used because the body of the deceased was placed in the grave as if he were sleeping (Ak and Akıncı Kesim 2013). The cemetery is a place name derived from the word ''grave'' with Turkish affix which means ''the place of visit'' in Arabic. The fact that Koran (et-Tekasür 102/2) and hadiths contain the word ''ziyaret'' (visit) affects the use of ''mezar'' (grave) which is more common in Persian and Turkish in exchange for the ''kabir'' (grave) in Arabic which means the place where the dead is buried (Bozkurt, 1988).

In all religions and societies, it is seen that cemeteries gain meaning with the influence of spiritual values and religious beliefs. The fact that cemeteries are the symbol of peace draws attention as a common point in all the meanings it has gained (Ching Goh & Earn Ying, 2020). In all beliefs, cemeteries are respected

and believed to give inner peace. Nowadays in some cultures, cemeteries are not regarded as dead burial area and passive green area only. They are open to tourism and has become a visiting area of the city and also they are used commercially or as open-air museum. In some areas they are away from the chaos and stress of the city and open green areas to breathe.

THE EMERGENCE AND DEVELOPMENT OF CEMETERIES IN HISTORICAL PROCESS

It is believed that the first grave after the creation of the world occurred when Cain, the firstborn son of Adam and Eve, murdered his brother Abel out of jealousy, which was the first death case. In the incident in the verse of 27-31 of Surah al-Ma'ida of the Holy Qur'an, the sons of Adam made sacrifices to approach Allah (the god) but Allah favored Abel's sacrifice instead of Cain's. Cain killed Abel because of jealousy. Cain, who killed his brother, staring around without knowing what to do, saw that a crow buried the other crow in the ground and he imitated the same and buried the body of his brother by digging the ground. This event is similarly described in the Torah. In this context, it appears that the first grave occurred by burying the dead in the soil. During the Neolithic period in Anatolia, simple earth graves were found under the floors of the houses, in the settlements and in the caves. During this period, simple earth graves were found in settlements such as Çatalhöyük, Köşkhöyük, Yümüktepe, Fikirtepe, Pendik, Öküzini and Kuruçay. The simple earth graves found in the Öküzini Cave were generally surrounded by stones. It was found out that both Fikirtepe and Pendik Mound Late Neolithic settlements in the Marmara Region had funerary tradition within the settlement (Özterzi, 2011). In this period, direct burials were performed in terracotta cube graves and in marble or ceramic sarcophagi as well as in simple graves made of rubble stones. In addition, monumental tombs, which resemble a temple, gained the appearance of a small hill by carving the rocks, and different types and shapes of tombs such as tumulus graves were used. Clothing and food were also buried with the dead in the sarcophagus burial chambers. The belief that life existed after death especially influenced this type of burial. The burial patterns seen in the early ages changed over time with the factors such as religious beliefs, tradition, socio-cultural structure (Odabaş, 1992).

The graveyard areas created in Anatolia and in the world were built in some places in the form of shrine and immortalized the mortal human being handing down the next generations; and in some places they became the place of visitation of family and relatives in the form of modest monuments. Generally, in every society, the graves of prominent figures such as kings, monarchs, religious leaders, commanders and folk heroes were designed to be more ostentatious than other graves to transfer them to future generations. The grave of every society is the only structure that reflects the history, tradition and tradition of that society. When looking at the civilizations of the past, the tombs of important people give information about the history and tradition of that society.

Nowadays, due to the population density, the cemeteries occupy a large area in the cities and are designed to respond to the mortality rates in the cities. Although cemeteries are used for tourism purposes or as a visiting area in some societies, they should be designed as green areas which generally give peace and lead to spirituality.

The Turks, who ruled in almost every region of the world, especially in their main homeland of Central Asia, have had different procedures and customs to cherish the memory of the dead, which have become a tradition within the cult of the dead and with the influence of some ethnic groups during their settlements in various regions. It is possible to combine these procedures and customs in two

main groups: before and after the adoption of Islam by the Turks. However, even after the adoption of Islam, the procedures and customs formed before Islam are seen with some changes in some regions (Karamürsel, 2002; Aziz, 2013; Roux, 2012).

Graves and Cemeteries of Turks Before the Adoption of Islam

Before Islam, Turks were subject to various beliefs such as shamanism, Tengrism, Zoroastrianism, Manichaeism, Hinduism, Buddhism. In addition, Tengrism and Islam are the basis of traditional Turkish religion. In addition to these beliefs, they were influenced by religions such as Buddhism, Christianity and Manichaeism which were common in neighbouring countries. However, these religions could not survive much among the Turks because the basic characteristics of these religions were not suitable for the social lives of the Turks, they only played a role in shaping the Turkish social life (İltar, 2003). The first information about the Turks' pre-Islamic belief systems is found in Chinese sources. The first information about the burial ceremony of the Huns in Chinese sources belongs to 3rd century BC. According to these sources, if the deceased was a noble, he was buried in a mausolea called ''kurgan'' by embalming (Figure 1); if he was not, he was burried in a simple grave with stones called balbals in the bedside (Figure 2) (Başkan, 1996). Kurgan is one of the oldest Turkish grave structures (Sağıroğlu Arslan, 2017

Figure 1. Example of old Turkish kurgan grave (Baytok, 2016).

Figure 2. Example of Balbal Grave Stone (Sadık, 2018).

Another feature related to Hun kurgans was the size of the kurgans ranging between 6 and 46 meters according to the type and number of items placed in the graves. According to the data of the 3rd Century BC, Huns did not have cemeteries with trees (Berkmen, 2016). The Shaman tradition, placing various items in the grave, continued after the adoption of Islam and traces of this were found in various parts of Anatolia (Saraçoğlu,1950).

The Göktürks buried their dead in the ground. Then they put a tombstone indicating the gender, age and title of the deceased. The shape and dimensions of the stone varied according to the social status of the deceased. The gravestones of ordinary people were unpretentious and had an introductory text only. The tombstones of the rich were built in larger sizes (Uslu, 1997). These stones indicated the number of people who died as in inscriptions. Undoubtedly, the most famous one is ''Bengütaş'' which is also known as Orkhon Inscriptions belonging to Tonyukuk (BC 720), Kül-Tigin (BC 731) and Bilge Khan (Sağıroğlu Arslan, 2017; Şeker, 1999).

The Uighurs accepted Buddhism, but buried their dead in hills like the Göktürks and Kyrgyz did. The dead were buried in the pits under the mound. Heads were placed towards East or North (Saraçoğlu, 1950). Later, Uighurs built graves called ''stupa'' with a dome which were thought to constitute the foundation of the tomb and dome architecture seen in Anatolia (Figure3) (Tunçel, 1989). Kipchaks, the last nomadic tribe, erected statues facing the east in the graves in honour of the dead. A tomb with a sharp top or a brick tower and sometimes a house were built on the top of the tombs of the rich (Barthold, 1947).

Figure 3. Uighur Turks, an example of Stupa tomb (Di Castro, 2008).

Ahlat Tombs, which belong to 12th century Seljuk Period and covers approximately 210 acres of open land and which are also known as the largest historical Islamic cemetery of the Turkish-Islamic world, are sarcophagus tombs with huge ''şahide[1]'' (gravestones) (Uslu, 1997; Karamağralı, 2018).

----
1 Şahide: Head and footstones erected in a grave and decorated with writing and floral motifs (Persian)(Url2).

Graves and Cemeteries of Turks After the Adoption of Islam

While the Turks accepted Islam, they knew how to reconcile their thoughts and traditions with Islam. For example, the old Göktürk, Uighur beliefs, thoughts and idioms remained unchanged, blended with Islamic thought. Today, many customs and traditions on death are based on pre-Islamic times. After The Turks were converted to Islam, they only adopted the style of burial in the ground (İltar, 2003).

In the periods before Islam, there was not a specific direction but the tombs were directed towards Qibla with the Islamic Religion. The body of the deceased was buried directly into the soil to allow getting into the soil as soon as possible. The tradition of erecting the tombstone continued with the Islamic religion, and the headstone and footstone were used to direct the tombstone towards the Qibla. The tradition of symbolizing the tombs of the great people started with the tomb monuments called dome in Karakhanids for the first time after Islam. The origin of the tomb form, which started in the Islamic period, is based on Shaman period ''bark[2]''. Ceremonies such as prayer and funeral prayer, which are required by the Islamic religion, were performed on the upper part of the vault while the dead was buried in the ground floor. The domes were turned into a tomb in the Ottomans. Thus, it is possible to say that pre-Islamic concepts exist with new religion and a different interpretation (Tuncer, 1991). During the Anatolian Seljuk period, the tombstones were generally made in the form of marble sarcophagus. There were also samples made of tile, plaster and wood. The tomb stones whose head and foot stones were made separately started in the period of Seljuk (Oral, 1949).

During the reign of the Principalities and Ottomans, şahide (gravestones) types were enriched with different examples. On the head of these gravestones, as in the sarcophagi, verses, hadiths, poems, the name of the deceased and the date of death were written (Figure 4). The head stone was larger than the foot stones and gained importance in terms of decoration. It is seen that the name and history were sometimes written on the footstone. The footstones were sometimes left unadorned and sometimes decorated and crowned as headstones (Özkardaş, 2010).

----
2 Bark: The name given to the kurgans made of stone with roof covering. It is said that the Seljuk domes and the Ottoman tomb architecture were inspired by these barks (Berkmen, 2016).

In the Ottoman cities, cemeteries were almost like urban parks within the settlements. First of all, the graveyards were always established where the scenery was beautiful. For this reason, they were used as a visiting, resting and meditation place and also as a recreation area for the people of the city (Özkardaş, 2010). At the same time, because they were built within the settlement, the cemeteries played an important role in almost all the activities of the daily life as green spaces of the city where people dried the laundry, had a picnic under the big cypress trees in the hot afternoons in the summer and from time to time grazed their animals (Karaoğlu, 2007).

The cemeteries and ''hazires'' (burial area reserved for special people) occupied an important place in the topography of the Turkish cities and towns. The cypress forests formed by the cemeteries surrounding the main settlements, especially Istanbul, became a symbol providing a distinct beauty to the city. The hazires inside the city contributed to the city ecosystem as green spots in the settlement areas of the city with its trees (Eyice, 1996). Karacaahmet Cemetery, a good example in this regard, began to be established by Murat I in the 14th Century and fascinated foreign travellers for centuries with its impressive landscape. The cemetery, in which many bird species live and nest, has the appearance of a forest with various plants and trees like cypress, plane trees, laurel and nettle trees. Seyit Ahmet Creek and creek valley, which was a recreation area, were within the cemetery previously but they were removed later (İşli, 2001).

CEMETERY CONCEPT IN MODERN TURKEY

In the Ottoman cities, cemeteries became areas where life was intertwined with death. During the bairams, weddings and circumcisions, they were places which were visited quite often for jogging and play for children, and resting and chatting for adults (Uslu, 1997). In this regard, the cemetery concept in Ottoman cities is different from Turkey today. In general, cemeteries are planned outside the city today. Those in the city were previously established outside the city but they later became areas within the city due to the urbanization as a result of population growth. The cemeteries are surrounded by the walls and fences that are isolated from living spaces around them. On the other hand, there is no doubt that much more plants were used in the old cemeteries than today's cemeteries. The tradition of planting trees on the tomb of the deceased, which was seen as a tradition coming from pre-Islamic beliefs in the Turks, continued after Islam. It is now seen that there are more trees and shrubs in the old cemeteries than newly planned and established cemeteries. Unfortunately, in the society where many traditions are forgotten today, such traditions have also been forgotten and lost. While the cemeteries were being built in our country, they became reinforced concrete structures which were embedded in the soil, covered with concrete plaques and one- meter-wide two meters long and one meter deep in blocks. The newly constructed cemeteries were surrounded by stones and standard-shaped marbles were erected on the head and even the water reservoirs that were previously used in the cemeteries for the birds were removed and turned into monotonous areas covered with cold concrete and marble. While most of the cemeteries in Turkey are under threat of abandonment and neglect, just some of them resemble a clean, tidy parks with flowers (Örnek, 1966). Unlike cemeteries in our country, cemeteries in America, Europe and Asia have become the areas used for recreational purposes. The cemeteries here are used as places without a surrounding wall generally, as an open-air museum where people get away from city noise and relax.

DEPARCH VOL.2 ISUUE.1 | SPRING 2023 | PHYSICAL PLANNING APPROACHES OF TODAY'S CEMETERIES | MODA, A. OZTURK KURTASLAN, B.

71

CEMETERY PLANNING AND DESIGN: KAYSERİ ASRİ CEMETERY

The cemetery planning includes the selection of the land with the appropriate size and characteristics and the design and implementation stages of the selected land depending on the population growth rate and mortality rate in the urban settlement. In addition, plans should be made with a flexible approach that can adapt to the character, change process and requirements of the city (Aktan, 1999).

Good cemetery planning and design can directly contribute to the city's landscape and ecosystem, and provide the preservation and transfer of tombs and cemeteries, which are the cultural and historical heritage of the city, to future generations. The planning of the cemeteries includes the evaluation of the demographic, socio-cultural and religious structure of the city, the analysis of the physical data and the identification of the problems, the projections according to the death statistics, the suggestion of alternative cemetery areas and the implementation of these selected areas and maintenance and repair of them.

Kayseri Asri Cemetery, which was established in 1952, is the largest cemetery of Kayseri Province with an area of 853.000 m² and consists of two parts: Eski Mezarlık (Old Cemetery) and Taşlıburun Cemetery. The part called Old Cemetery was not enough due to the increase in the population of the city in time, so Taşlıburun area was established and it still continues to expand in the direction of Hacılar district of Kayseri province. Kayseri Asri Cemetery (City Cemetery) is located in Hacılar district. It is centrally located as it is 3.5 km away from Kayseri Cumhuriyet Square in the city centre (Figure 5).

There are 9 main gates of the cemetery; 1 main entrance and 8 small entrance doors. In 2019, a pull-off was made at the entrance of the Old Cemetery, on Şehit Nazım Miralay street and a 1 km long area was cleared of traffic and turned into a parking lot, and also a parking lot of approximately 800 vehicles was established on the road.

Within the cemetery there are 1 newly built mosque (Figure 6), 1 masjid, 2 condolence areas, 2 ablution rooms, 1 cemetery service building and 1 sales unit. There is a morgue and a ''gasilhane'' (the place to wash the deceased) within the cemetery service building.

Figure 5. The Location of Kayseri Asri Cemetery (Original, 2019-Google Earh-2019).

There are few and smaller open-green areas around Kayseri Asri Cemetery. Two of these are university campuses, one is a recreation area and five are parking areas. The cemetery is a very large green area within the urban environment. According to Uslu (1997), the areas with a slope of 20% and above should not be selected while the graveyard planned and the slope standard should be 10% and below. In this context, before establishing the cemetery, Kayseri Metropolitan Municipality made area planning and performed terracing works where slope was high and made the area suitable for the cemetery facility. In areas with high slope, cemetery facilities at different elevations were established with retaining walls. This makes the contact and transportation easy in the cemetery.

Kayseri Asri Cemetery is very close to the dwellings and is within easy reach. There are 78 blocks in Old Cemetery and 50 blocks in Taşlıburun area. The plots were placed in the blocks steadyingly and suitable and equal distances were placed between the plots. The direction of all tombs in the cemetery was arranged in accordance with the Islamic Religion. The cemetery has 9 vehicle entrances and 7 pedestrian entrances including the main entrance. The main gate of the cemetery was renewed in 2019, thus entering vehicles, exiting vehicles and pedestrian entrances were separated from each other.

Graveyard walls and railings with appropriate height provide visual communication to pedestrians and vehicle users inside and outside the graveyard.

In the field research, there was no bicycle and motorcycle in the parking lot of the cemetery. Although parking problem was not observed in the whole area, it is seen that there was a parking problem in the 5th, 6th and 7th gates. There are 4.70 m wide main roads and 3.40 m wide byroads between the blocks within the cemetery. While two vehicles can pass side by side on main roads, this is unfortunately not possible on byroads. There are structural elements such as service building, mosque, masjid, toilet and ablution room, gasilhane, condolence places, sales units within the cemetery.

The equipment elements in the cemetery can generally be evaluated as follows: There is at least 1 fountain on each block in the cemetery. As a result of the interviews with the authorities of the cemetery, it was stated that the lighting was not used consciously and night lighting could create a security weakness at late hours in the graveyard area which was spread over a large area. There is no trash can on the main road and the byroads between the cemetery blocks and the plots. Those who visit the cemetery on hot summer days or those who come to the funeral, need seating elements in the shadow. Although there are signs

indicating the block number in the corners, there is no sign indicating where the blocks are located. Signs of hadiths and verses are seen on the main and byroads of the cemetery. The same hadiths and verses are often repeated in these plates with a certain concept.

As it was the first area to be established, the vegetation cover is denser and older in the Old Cemetery, with trees over 65 years old. Coniferous and broad-leaved trees in the cemeteries provided a forest view and enriched the image (Figure 7). Alee afforestation was performed in roads with broad-leaved species and shadow areas were formed along the way (Figure 8). Bushes were used especially among the graves and seasonal flowers were planted on the sides of the main road.

Figure 7. Gen. Hulusi Akar Mosque and surroundings (Anonymous, 2018a).

Figure 8. Road afforestation in Kayseri Asri Cemetery (Original 2019).

THE SURVEY AND THE ANALYSİS OF THE DATA TO DETERMINE VISITOR SATISFACTION IN KAYSERİ ASRİ CEMETERY

A survey was conducted to determine the importance of Kayseri Asri Cemetery, which was considered as a study area, within urban open-green area systems that rapidly diminished with the urbanization in Kayseri and also to determine the recreational potential in the city and the satisfaction of the people of Kayseri from the Asri Cemetery. The surveys were conducted face to face at the weekend and on the eve and Eid al-Fitr (Festival of Breaking the Fast) when the cemeteries attracted the most visitors and in April, May, June in 2019.

The users of Kayseri Asri Cemetery and those who came to visit were identified as target groups in the survey. Asri Cemetery is used extensively by residents of

central districts of Kayseri. To determine the number of surveys, the sample size was accepted as 1.105.027, the total population of these three districts, and the number of the questionnaire was obtained as 384 from Kalıpsız (1981) formula.

n   = Z²NPQ / ND² + Z²PQ
n   = Number of questionnaires
N   = Sample size (1.105.027)
Z   = Confidence Coefficient (1,96)
P   = Possibility of the feature being in the mass (0,5)
Q   = 1- P (0,5)
D   = The error to be accepted (0,05)
n   = (1,96)² x 1.105.027 x 0,5 x 0,5 / 1.105.027 x (0,05)² + (1,96)² x 0,5 x 0,5
        = 1.060.825,92 / 2.762,56 + 0,9604
        = 1.060.825,92 / 2.763,52
        = 384

Socio-demographic structure of the surveyed visitors

Among the visitors to the Asri cemetery, 27% of the respondents were women and 73% were men (Table 1). In the surveys conducted at different times, there were no female visitors who visited individually when there were no collective visits. It has been observed that the visitors who visit on the days except holiday eve and feast holidays are usually male visitors.

Gender	n	%
Woman	104	27
Man	280	73

Table 1. Gender rates of visitors

The age ranges of the surveyed visitors are as shown in Table 2. When the age range of 40 - 49 is taken as a middle age, it is observed that it is rarely possible to meet the visitors under the middle age except for the holiday eve and the feast holidays, and it is observed that the middle age and over age group generally participate in the cemetery visit regardless of the special days. It was observed that the visitors over the middle age came to the cemetery care during the week and spent more time around the cemetery.

Age groups	n	%
18-29	34	9
30-39	54	14
40-49	81	21
50-59	111	29
Above 60	104	27
Total	384	100

Table 2. Age groups of visitors

Since the cemetery visits mostly took place with the family on the special visit days, the marital status of the married people took place more in the survey. It is observed that the rate of married people is high since 77% of the visitors to the cemetery visit are middle-aged and older (Table3).

Marital status of visitors	n	%
Married	276	%72
Single	42	%11
Other	66	%17
Total	**384**	**100**

Table 3. Marital status of visitors

Satisfaction analysis of the surveyed visitors

In order to determine the views of Kayseri Asri Cemetery visitors about the cemetery; questions were asked about the accessibility of the cemetery, the status of the parking lot, the status of the equipment elements, transportation within the cemetery, planting design, the status of the service buildings and the status of the cemetery again (Table 4). The answers show satisfaction grades 1 to 5 (1: very satisfied, 2: satisfied, 3: undecided, 4: not satisfied, 5: not satisfied at all).
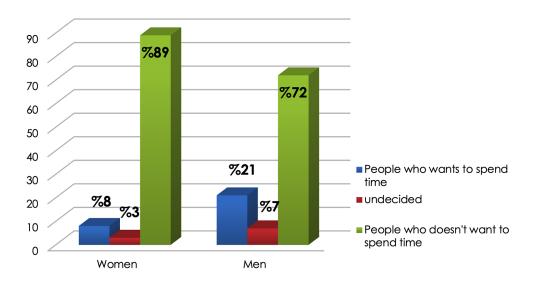
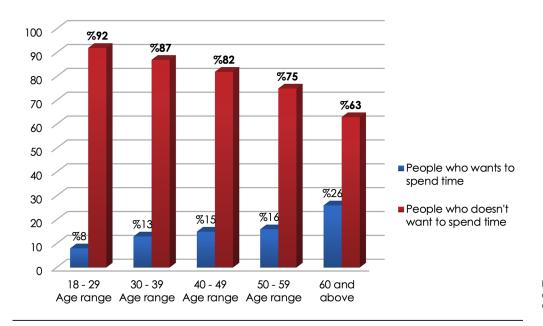|	1		2		3		4		5	
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Access to the cemetery	104	%27	184	%48	0	% 0	84	%22	12	%3
Satisfaction in terms of parking	138	%36	192	%50	31	%8	23	%6	0	% 0
Satisfaction in terms of bordering elements	31	%8	184	%48	100	**%26**	58	%15	12	%3
Satisfaction in terms of accessibility in the cemetery	35	%9	265	%69	8	%2	65	%17	12	%3
Directive signs	38	%10	204	%53	46	%12	92	%24	4	%1
Satisfaction in terms of quantity of fountains	77	%20	108	%28	23	%6	123	%32	54	%14
Satisfaction in terms of seating elements	19	%5	38	%10	54	%14	211	%55	84	%22
Satisfaction in terms of quantity of trash bins	42	%11	77	%20	42	%11	177	%46	46	%12
Satisfaction in terms of quantity of lighting elements	27	%7	38	%10	188	%49	96	%25	35	%9
Satisfaction in terms of block-plot arrangement	105	%27	200	%52	15	%4	54	%14	12	%3
Satisfaction in terms of planting design	169	%44	142	%37	8	%2	42	%11	23	%6
Satisfaction in terms of trees' providing shade	61	%16	111	%29	12	%3	146	%38	54	%14
Satisfaction in terms of Service buildings	154	%40	165	%43	15	%4	8	%2	42	%11
Satisfaction in terms of general organisation	58	%15	192	%50	50	%13	65	%17	19	%5

Apart from the purpose of visiting the cemetery, the visitors' wishes to spend time in the cemetery for purposes such as socializing, resting (passive recreation), staying alone with nature and turning to spirituality were questioned and the results are given in Table 5. This situation was investigated and compared according to gender in the graph in Figure 9, and according to age groups in Figure 10.

Willingness to spend time in the cemetery apart from a visit	n	%
People who want to spend time in the cemetery apart from a visit	65	%17
People who don't want to spend time in the cemetery apart from a visit	292	%76
I decided	27	%7
Total	**384**	**100**

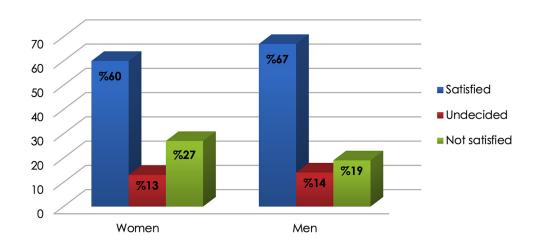**Table 5.** Willingness to spend time in the cemetery apart from a visit

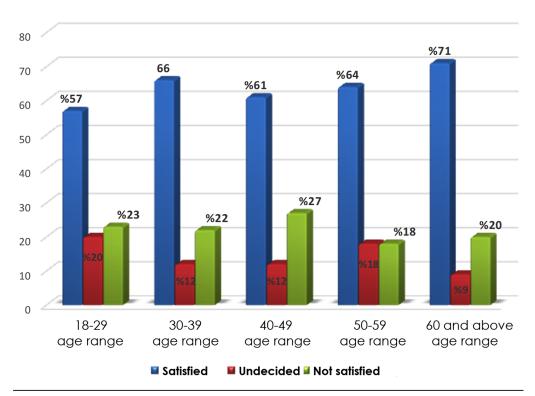**Figure 9.** The graphic of using cemetery apart from a visit according to gender

Figure10. The graphic of using cemetery apart from a visit according to age groups

DEPARCH VOL.2 ISUUE.1 | SPRING 2023 | PHYSICAL PLANNING APPROACHES OF TODAY'S CEMETERIES | MODA, A. OZTURK KURTASLAN, B.

77

Of the 104 female visitors surveyed, 89% (342 people) did not want to spend time except for the aim of visiting, 8% (31 people) wanted to spend time except for the visiting aim, and 3% (12 people) were undecided. Of the 280 male visitors surveyed, 72% (276 people) did not want to spend except for the aim of visiting, 21% (81 people) wanted to spend time except for the visiting aim, and 7% (27 people) remained undecided. It is also observed in the gender distribution of female visitors that the habits of visiting cemeteries are much less than that of men, except for special occasions. The main reason why women do not want to spend time except for the aim of visiting, is that the cemetery is not secure enough. Such problems make people feel unsafe in secluded and quiet places. Considering the nature of the green area, the cemeteries are among the other open-green areas and are the quietest areas after the forests.

In the survey conducted, 60% (230 people) of the 104 female visitors surveyed were satisfied with the general layout of the cemetery, 27% (104 people) were not satisfied, and 13% (50 people) were undecided. Of the 280 male visitors surveyed, 67% (257 people) were satisfied with the overall cemetery layout, 19% (73 people) were dissatisfied, and 14% (54 people) were undecided.

Figure 11. Satisfaction graphic with the overall layout of the cemetery by gender.

Figure12. Satisfaction graph with the overall layout of the cemetery by gender

Of the 35 visitors between the ages of 18 and 29, 57% (219 people) are satisfied with the general layout of the cemetery, 23% (88 people) are not satisfied and 20% (77 people) are undecided. Of the 53 visitors aged 30 to 39, 66% (253 people) were satisfied with the general layout of the cemetery, 22% (84 people) were not satisfied, and 12% (46 people) were undecided. Of the 82 visitors aged 40 - 49 years, 61% (234 people) were satisfied with the general layout of the cemetery, 27% (104 people) were not satisfied, and 12% (46 people) were undecided. Of the 110 visitors between the ages of 50 and 59, 64% (246 people) are satisfied with the general layout of the cemetery, 18% (69 people) are not satisfied and 18% (69 people) are undecided. Of the 104 visitors aged 60 and over, 71% (273 people) are satisfied with the general layout of the cemetery, 20% (77 people) are not satisfied, and 9% (35 people) remain undecided.

CONCLUSION AND RECOMMENDATIONS

The Turks have been a society that love green in their cemeteries since pre-Islamic times and they have brought these features to the present day. The reason why this feature has survived to this day is that this behaviour corresponds to the Islamic religion. In Islamic religion, it is mushbooh (neither obviously haram nor obviously halal) to pick the living plants on the graves. According to Islamic belief, every living creature does Dhikr – remembers Allah- in different ways including plants.

As Karaoğlu (2007) points out, the cemeteries were the areas of urban parks within the settlement areas of the Ottoman Cities. First of all, the cemeteries were always located in places with the most beautiful views. For this reason, they were used as a visiting, resting and meditation place and also as a recreation area for the people of the city. Since the cemeteries were established within the settlement in that period, they also existed as living spaces and textures in daily life. After the Ottomans, cemeteries were positioned far away from the settlements and isolated from daily life being surrounded by high walls by Public Health Law in Turkey in 1930 and Cemetery regulations in 1942. Today, cemeteries have become quiet places where people visit on special occasions and holidays and don't like spending a lot of time. However, due to the rapid urbanization and the loss of the green areas, people have come to understand the importance of the values they have lost.

In this study a result of the surveys, it was discovered that the people of Kayseri were not willing to use the cemeteries as (passive) recreation areas, the majority of them did not want to spend time in the cemetery and did not want to use them except visits and funerals. When the users who did not want to spend time in the cemetery apart from the visits were evaluated according to their gender, it was observed that most of the women did not want to spend time in the cemetery apart from the visits. It was found that men were more willing to spend time in the cemetery than women, and those who were willing were retired over the age of 50. In Kayseri Asri Cemetery and generally in Turkey, the reason why people want to use the cemeteries for visit only is basically socio-cultural problems and design problems. These two problems are not independent of each other and changing the perspective of design can lead to changes in socio-cultural structure.

In this study, it was found that Kayseri people did not have any difficulty in reaching the cemetery, and since the cemetery was in the central position, they could easily arrive at the cemetery both by vehicles and on foot. It is free to enter the cemetery by car except for special occasions, so there is no need for parking lot. However, on special days, people need a parking lot because

DEPARCH VOL.2 ISUUE.1 | SPRING 2023 | PHYSICAL PLANNING APPROACHES OF TODAY'S CEMETERIES | MODA, A. OZTURK KURTASLAN, B.

79

there is no entry for vehicles on those days; but this need is met with the car parks established inside and outside.

Visitors can go to each block of the cemetery by car and can easily reach the tombs through the pedestrian roads. While the main roads of the cemetery are large enough, on the side roads it is not possible for vehicles to pass side by side. The plot layout of the Asri cemetery within the blocks is quite regular. The satisfaction level of the visitors was found to be quite high, but the fact that the arrangement of the cemetery blocks is not in order causes confusion and makes it difficult to find the graves. Even if someone who comes to the cemetery for the first time knows the grave, the block and the plot, it is not so possible to find the blocks apart from the first 20 ones since there are no directive signs or there is not a sign with cemetery plan.

The most disturbing thing for the visitors in the cemetery is the lack of reinforcement elements. Visitors find fountains, rubbish and seating units inadequate. There is no specific distance and planning between the fountains and they are positioned randomly. No trash can be ound inside the cemetery, on the side of the road or on the cemetery blocks, only it was found around the mosque at the entrance. However, one of the main issues that visitors are very satisfied with is the cleanliness of the cemetery in general. Another issue is that there are no seating units except condolence places throughout the cemetery. Asri cemetery has a large area, so seating units are needed especially during hot summer months.

The mosque and the nation's café in the cemetery are important facilities that attract the public apart from the visit to the cemetery. People who come from the settlements near the cemetery for salaah (prayers) spend time here. Some of the people who complete their prayers in the mosque during the day or on fridays spend time reading books and drinking tea in the nation café or chatting with the people around the mosque.

These facilities will lead up to the ground to open the graveyards as green spaces, and will attract people, except for the visit, by overcoming the prejudices of the public about the cemetery. However, although the cemetery has this potention, the lack of reinforcement elements plays an active role in the public's unwillingness to spend time outside the cemetery. For example, a person who wants to come to the cemetery and wants to relax in the silence of the cemetery will need a seat after a certain period of time, but since there are no seating units, he will soon sit on the tomb walls because he is tired, but this will disturb him.

The cemetery consists of two locations, namely "Old Cemetery Location" and "Taşlıburun Location". As Taşlıburun location was established later, plant density is less frequent and younger than the Old Cemetery location. Since the shadow of young plants is insufficient, the satisfaction for the vegetation is low in the surveys conducted here but it is high in the Old Cemetery. If we compare the Old Cemetery and Taşlıburun, the Taşlıburun location has sparser and undersized vegetation than the Old Cemetery area, the trees provide less shade, the lawn area facilities are more sloppy, the graves, blocks and plots are more neglected and the roads are narrower. For this reason, it is the Old Cemetery area of Kayseri Asri Cemetery which is suitable for construction as an urban green area and to be put into service.

Based on the results of the satisfaction survey and problems in planning of the Kayseri Asri Cemetery in this study, some measures can be taken and suggestions

can be made for the more convenient use of the cemetery. For example, the scale and designs of tombstones should be designed and placed in harmony. In the design of the cemetery entrances, a style unity should be provided with the new main entrance. This unity of style should also be provided in the design of the cemetery walls. Parking places for the disabled and bicycle and motorcycle parks should be included in the car parks.

Pull-offs should be opened at certain distances on roads that are not wide enough to allow the passage of two vehicles within the cemetery. The walls with a height of 3 m in some places and created in the cemetery area due to the elevation difference and with a poor appearance should be softened by using holding and climbing plants and they should be integrated with the green texture of the cemetery. Certain areas of the cemeteries should include signs that show the cemetery block-plot plans and there must be directive signs indicating the direction of the blocks. A unit that sells live flowers and cemetery maintenance tools should be established for the citizens who want to take care their graves with seasonal flowers and want to do cemetery maintenance. A certain standard should be brought to the fountains of charity inside the cemetery, and they should be built by the benefactors within these standards, not in the place they want, but in the places planned by the administration. At the corners of each of the 4 blocks in the cemetery, containers should be placed that can be used by the caregivers. In the cemetery, seating units should be placed on shade areas, on view points and view hills for both visitors and citizens who wish to benefit from the tree shadows in the cemetery on hot summer days. Ornamental pools should be designed according to the concept of the cemetery and the silence and serenity within the cemetery should be accompanied by the sound of water. Biological ponds should be built into the cemetery and these biological ponds should be used to enrich wildlife diversity by bringing a new ecosystem. Thus, without disturbing the peace and silence here, people will be allowed to come to the cemeteries not only for a visit but for recreation purposes and they will listen to the sounds of birds, see the butterflies and escape the noise of the city and taste the peace of nature.

In accordance with the suggestions mentioned above, Kayseri Asri Cemetery will be more useful and can be integrated with the city; and it could become an urban green area that is far from being just a burial and visiting centre. For this purpose, the cemetery concept during the Ottoman period and which is intertwined with the recreation areas will still be revived today. As a matter of fact, the nation's cafe in Kayseri Asri Cemetery, which is used extensively, is an indication that the people of Kayseri need socialization places in the cemetery. In this regard, in Asri Cemetery and in the newly planned cemeteries in Turkey, the areas that serve the common use and passive recreation facilities which offer the peace of nature such as parks and gardens should be included in the cemeteries. Thus, as in all Muslim cemeteries, the graveyards will not contain anything grieving or pathetic, and the prevailing feeling will be peace and serenity.

Ethics Committee Approval

Ethics committee approval was not required for this article.

Legal Public/Private Permissions

In this research, the necessary permissions were obtained from the relevant participants (individuals, institutions, and organizations) during the survey and in-depth interviews

REFERENCES

Ak, K. ve Akıncı Kesim, G. (2013). Anıt mezarların peyzaj mimarlığı yönünden incelenmesi: İzzet Baysal anıt mezarı çevre düzenlemesi örneği. Ormancılık Dergisi, 9(2), 38-55.

Aktan, N. G. (1999). Fiziksel planlama yönünden İzmir ve Fankfurt kent mezarlıklarının karşılaştırılması [Yayımlanmamış Yüksek Lisans Tezi]. Ege Üniversitesi.

Aziz, M. (2013). Uygur Türklerinde mezarcılık kültürü. Bilim ve Kültür-Uluslararası Kültür Araştırmaları Dergisi, 2, 186-196.

Barthold, W. (1947). Türklerde ve Moğollarda defin meselesine dair. (Çev. A. İnan). Belleten. Türk Tarih Kurumu Basımevi.

Başkan, S. (1996). Karamanoğulları Dönemi Konya mezar taşları. Ankara: Kültür ve Turizm Bakanlığı Yayınları.

Baytok, K. (2016). Balbal. https://onturk.org/2016/06/22/balbal/ (Erişim tarihi: 8 Nisan 2019).

Berkmen, H. (2016). Türk kurgan mezar bark ve balballları. https://edebiyatvesanatakademisi.com/forum/detay/islamiyet-oncesi-donem/turk-kurgan-bark-mezar-ve-balballari-doc-dr-haluk-berkmen/19509 (Erişim tarihi: 18.05.2019).

Bozkurt, N. Mezarlık. Ankara: Türkiye Diyanet Vakfı İslam Ansiklopedisi. https://islamansiklopedisi.org.tr/mezarlik Erişim tarihi: (13 Temmuz 2019).

Ching Goh, H. and Earn Ying, F. (2020). Acceptable use of Chinese cemeteries in Kuala Lumpur as perceived by the city's residents. Urban Forestry and Greening, 55. https://doi.org/10.1016/j.ufug.2020.126837

Di Castro, A. A. (2008). The Mori Tim Stupa complex in the Kashgar Oasis. East

and West, 58, 1(4), 257-281. https://www.jstor.org/stable/29757765

Eyice, S. (1996). Mezarlıklar ve hazireler, islam dünyasında mezarlıklar ve defin gelenekleri. Cilt:1. Ankara: Türk Tarih Kurumu Basımevi.

İltar, G. (2003). Eski Türklerde mezar kültü ve günümüze yansımaları. Türk Kültürü ve Hacı Bektaş Velî Araştırma Dergisi, 27, 7–16. https://hbvdergisi.hacibayram.edu.tr/index.php/TKHBVD/article/view/588

İşli, N. (2001). TDV İslâm Ansiklopedisi. 24, 375-377. https://islamansiklopedisi.org.tr/karacaahmet-mezarligi (Erişim Tarihi: 24.06.2019).

Kalıpsız, A. (1981). İstatistik yöntemler. İstanbul: İstanbul Üniversitesi Yayınları. Karamürsel, A. (2002). Türklerde mezar geleneği. Türkler Ansiklopedisi, 293-97.

Karaoğlu, D. (2007). Kent Mezarlıklarının yeşil doku içindeki önemi ve ziyaretçi memnuniyetinin belirlenmesi-Karacaahmet Mezarlığı örneği [Yayınlanmamış Yüksek lisans tezi]. İstanbul: İstanbul Teknik Üniversitesi.

Karamağralı, B. (2018). Ahlat mezar taşları. Türkler. Cilt 8, 338-354. https://www.academia.edu/28649874/T%C3%BCrkler-_Cilt_08.pdf (Erişim tarihi: 3.07.2019).

Kumru, S. N., Özçalık, M. (2021). The evaluation of city cemeteries as active green areas, the case of Kahramanmaras. Journal of Architecture, Engineering & Fine Arts, 3(1): 1-18.

Mutlu, S. (2018). Ölüleriyle yaşayan halkın hafızası: Osmanlı mezar taşları, https://www.aa.com.tr/tr/kultur-sanat/oluleriyle-yasayan-halkin-hafizasi-osmanli-mezar-taslari/1116935 (Erişim Tarihi: 11.04.2019).

Odabaş, A. (1992). Mezarlıklarda peyzaj planlaması. Peyzaj Mimarlığı Dergisi, 2, 57-60.

Oral, M. Z. (1949). Konya'da tarihi mezar taşları. Anıt Dergisi. (I-1949), 19-25.

Örnek, S. V. (1966). Anadolu folkloründe ölüm. Ankara: Ankara Üniversitesi Dil ve Tarih Coğrafya Fakültesi Yayınları.

Özkardaş, V. (2010). İstanbul mezarlıklarının peyzaj planlama, tasarım ve bakım çalışmaları açısından incelenmesi Karacaahmet Mezarlığı örneği [Yayınlanmamış Yüksek lisans tezi]. Bahçeşehir Üniversitesi.

Özterzi, S. (2011). Anadolu'da Neolitik ve Kalkolitik dönemdeki mezar tiplerinin ve ölü gömme geleneklerinin sosyo-kültürel açıdan değerlendirilmesi [Yayımlanmamış Yüksek Lisans Tezi]. Ankara Üniversitesi.

Roux, J. P. (2012). Türklerin Tarihi – Pasifikten Akdeniz'e 2000 yıl (Çev: A. Kazancıgil ve L. Arslan Özcan), İstanbul: Kabalcı Yayınevi.

Sadık, C. (2018), Göktürk Taş anıtları ve balballar. https://www.tarihlisanat.com/balballar-gokturk-tas-anitlari/ (ErişimTarihi: 09.04.2019).

Sağıroğlu Arslan, A. (2017). "Taşlar konuşur": Türk mezar taşlarının biçim dili. Uluslararası Türkçe Edebiyat Kültür Eğitim Dergisi, 6(3), 1923-1937.

Saraçoğlu, N. (1950). Türk mezarlarına dair araştırma. Yeterlilik Çalışması. İstanbul: İ.T.Ü Mimarlık Fakültesi, İstanbul Matbaacılık.

Şeker, M. (1999). Türk mezar bilimi bir disiplin olarak kurulmalı. Geçmişten Günümüze Mezarlık Kültürü ve İnsan Hayatına Etkileri Sempozyumu. 18 - 20 Aralık. İstanbul: Mezarlıklar Vakfı Yayını.

Tunçel, G. (1989). Batı Anadolu Bölgesi'nde cami ve tasvirli mezar taşları. Ankara: Kültür Bakanlığı Yayınları Tanıtma Eserleri Dizisi. Mas Matbaacılık.

Tuncer, O. C. (1991). Kümbet mimarimiz. Kültür ve Sanat Dergisi. Türkiye İş Bankası Yayını, 4, 20-22.

Uslu, A. (1997). Tarihi süreç içerisinde Anadolu Mezarlıkları ve çağdaş bir yaklaşımla Ankara Kenti için örnek bir mezarlık planlaması üzerinde bir araştırma [Yayımlanmamış Doktora Tezi}. Ankara Üniversitesi.

BIOGRAPHY OF AUTHORS

Ahmet Moda, who completed his primary and high school education in Kayseri, graduated from Ankara University Landscape Technician Department in 2007. In 2013, he graduated from Artvin Coruh University, Department of Landscape Architecture, with the first place in the department and the third place in the Faculty of Forestry. He completed Anadolu University Department of Justice

DEPARCH VOL.2 ISUUE.1 | SPRING 2023 | PHYSICAL PLANNING APPROACHES OF TODAY'S CEMETERIES | MODA, A. OZTURK KURTASLAN, B.

83

in 2016 and Master's degree at Selcuk University Landscape Architecture Department in 2019. Between 2013 and 2017, he worked as a landscape architect and manager in various sectors. He has been serving as a Landscape Architect in Kayseri Metropolitan Municipality since 2017.

Banu Öztürk Kurtaslan graduated from Ankara University Agriculture Faculty-Department of Landscape Architecture in 1996. She has got her master's degree in 1998 and Ph.D. degree in 2004 from the same university. She has worked as a research assistant in Erciyes University Faculty of Architecture-Department of City and Regional Planning between 2001-2005 years. She is currently an academician in Department of Landscape Architecture at Selcuk University Faculty of Agriculture- Department of Landscape Architecture in Konya City since 2005. She gave some lectures in both institutions, both on graduate and post-graduate levels.

She has been a visiting scholar with Fulbright grant in City University of New York-Bernard and Anne Spitzer School of Architecture-Department of Landscape Architecture and Mississippi State University Department of Landscape Architecture in 2010-2011 education year. She studied on urban park planning-design and ecological design, in both states. She has been invited by Slippery Rock University College of Health, Engineering and Science-Parks and Conservation Department, Pittsburgh, PA, to study urban green area project and has been studied there on 2015-2016.