

## *Full Length Research Paper*

# **Determination of the preference of urban people in picnic areas with different landscape characteristics**

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**Access to open, green spaces for recreational purposes plays a significant role in the quality of the lives of city dwellers. Given this, such spaces should be provided, but quite what is required? Appropriately detailed research can help in the identification of principles capable of informing the work of landscape architects, designers and planners in the development, construction and restoration of such valuable green spaces. The objective of this study was to determine preferences and priorities among the urban population for open and green areas with differing landscape characteristics in Erzurum, Turkey in 2005. The results indicated that there were great differences in preferences for picnic sites regarding to income level, gender, age and occupational groups and people prefer the areas with higher natural beauties. The areas close to the city centre are preferred by the elderly people and those with a lower income level, while the further sites are preferred by the ones with a higher income level.**

**Key words:** Recreation, individual preferences, picnic, questionnaire, Erzurum.

## **INTRODUCTION**

Human beings need recreational activities to isolate themselves from the busy living conditions (Kaplan, 1993). With increasing population and increased unemployment life in urban areas has become harder. As the number of discontented and desperate people raises the need for recreational areas, where these people might restore some happiness and hopefulness in life, has come to the fore. Recreational activities have been found to have emotionally, intellectually, socially and physically positive effects on people (Hartig et al., 1991; Kaplan, 1993; Cessford and Muhar, 2003; Grahn and Stigsdotter, 2004; Özgüner, 2004, Turgut et al., 2009).

Landscape architects should observe their environment to make a suitable and successful design. They should observe both the areas where their designs will be realized and investigate the needs of the people who will utilize these areas once designed and built. Increases in

the number of healthy, contented and comfortable people can help to turn cities into more livable environments. Therefore, there is a need for recreational areas to be established in urban areas. If designed efficiently and well enough, recreational areas can become the environments where urban people can relax, refresh themselves and find peace.

Open green spaces in urban sites have increasing importance in areas that are undergoing rapid development day by day. Because of the increase in the density of population and negative environmental conditions, people have been kept away from nature and confined to living among the concrete and stone buildings. Many of the studies on overall satisfaction gained from recreational experience have analyzed and measured it as a function of a site's recreational use level in terms of the number of encounters with "other" visitors and the feeling of crowding (Chang, 1997; Cicchetti and Smith, 1973; Manning and Ciali, 1980; Santiago et al., 2008; Stewart and Cole, 2001; Oguz, 2000; Yilmaz et al., 2007; Demircan and Yilmaz, 2004).

People are in need of psychological relaxation.

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Research has shown that trees and other vegetation have various social and environmental advantages for the continuity of urban sites and for people's affluence (Wilmers, 1991; Anonymous, 1992; Kaplan, 2001; Attwell, 2000; Chiesura, 2002; Konijnendij, 2003; Freestone and Nichols, 2004; Chiesura, 2003; Chiesura, 2004). Those who frequent picnic sites develop fewer illnesses, especially stress-related conditions, and their concentration increases (Grahn and Stigsdotter, 2004). While people working indoors (under roofs), are 25% more likely to develop illness than those who work in contact with nature. Moreover, it has been determined that having a contact with nature has positive effects on people; that people make use of nature emotionally (escaping from the environments of home and business, the feeling of being alone, quietness and stillness), intellectually (investigating nature, researching the history of natural sites in the environment, gaining new and different abilities), socially (introductions with people in nature sites and building relationships, developing feelings of responsibility for the soul of society and local nature sites with other people in the region) and physically (being in the fresh air, feeling lively, smelling and feeling plants and listening to birds etc. (Hartig et al., 1991; Kaplan, 2002; Grahn and Stigsdotter, 2004; Ozguner, 2004) That the surroundings in which people live in is of the color green makes them feel relaxed and calm (Kaplan and Peterson, 1993).

Picnic activity, which draws attention as a widespread cultural activity especially in big cities, can be characterized as a kind of traditional trip into nature. People get prepared daily and spend fun time in the natural sites generally a little way from the city centre or the city itself. Since trips to these areas require no additional expense, they are easily able to go these areas in groups (Hildebrand and Milano, 2001; Fleishman and Feitelson, 2009).

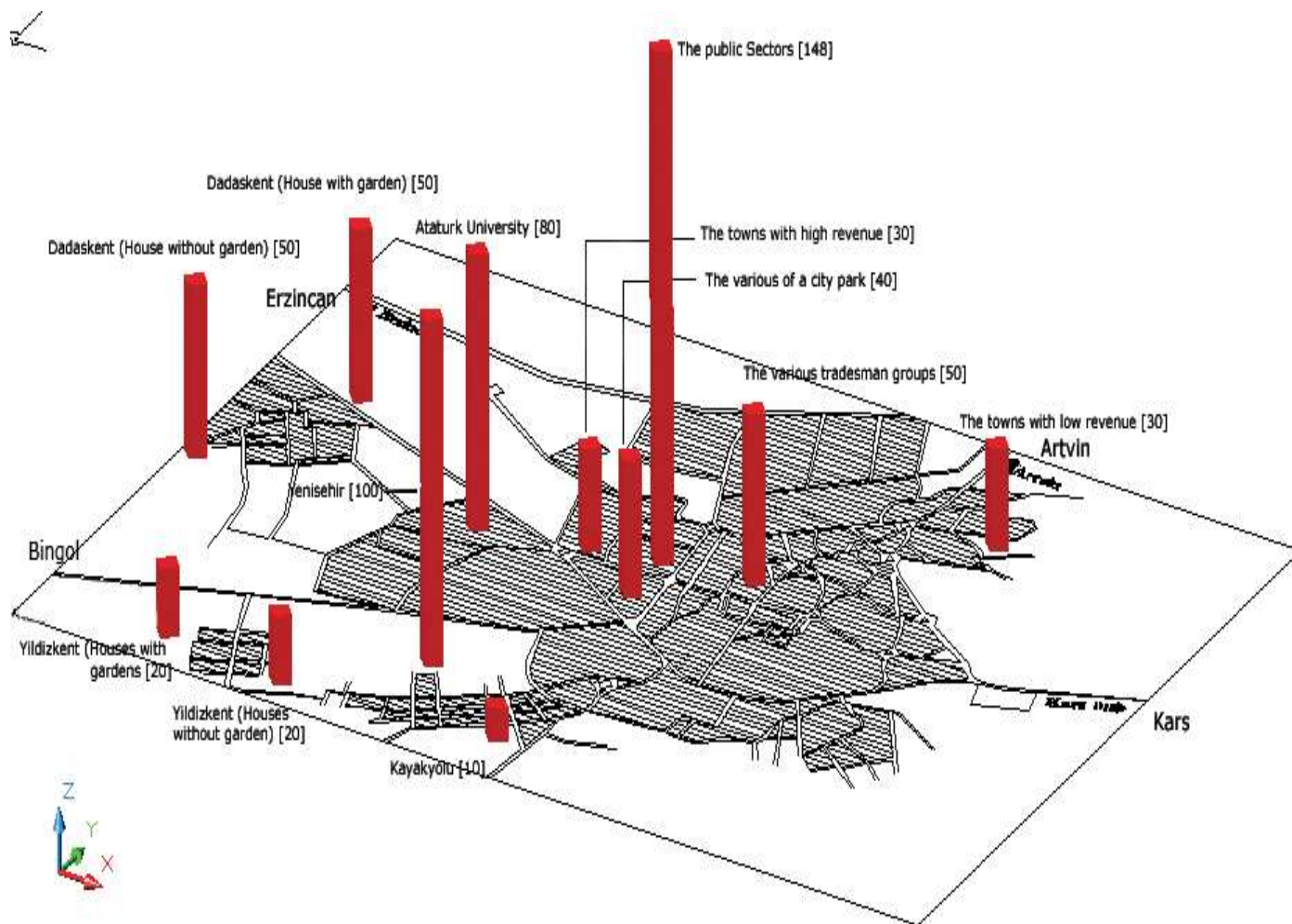
People who relieve their stress through recreational activities and getting away from their usual environments can relax and refresh themselves and make accurate and healthy decisions (Kaplan and Kaplan, 2005; Del Saz and Garcia-Mendez, 2007; Nielsen and Hansen, 2007; Mitchell and Popham, 2008; Grahn and Stigsdotter, 2010). In addition to stressful environment of urban areas and work stress, cities may become more unlivable when the number of discontented and uncomfortable people increases (Grahn and Stigsdotter, 2010). When these conditions are considered, the importance of recreational areas in urban areas increases many times (Lopez-Mosquera and Sanchez, 2011). Recreational areas in urban areas should be designed to best meet public needs. Landscape architects should aim to meet these needs for relaxation and happiness through accurate planning and informed designs. Here it should be kept in mind that the recreational demands of each urban community are different. For instance, people near coastal regions can satisfy their recreational needs by

walking along the shore while people in a forested area can perform recreational activities by spending some time wandering in the forest. However, in a city located on a continental and arid land, people can find it harder to meet their recreational needs in the absence of areas which are designed for recreational activities (Oguz, 2000; Yilmaz et al., 2007; Arriaza et al., 2004; Daniel, 2001).

The area selected for our study has extreme conditions since it has harsh climatic features and is located on a very high elevation. People in this region have to spend nearly eight months of the year indoors. This increases the demand for and interest in outdoor areas in the remaining period. The city of Erzurum is located at an altitude of 1850 m and has extreme climate conditions. In this city, which is increasingly subjected to internal migration, the number of automobiles increases continually in parallel with the density of population and this rate has reached 32543 today (Anonymous, 2003). Traffic jams, air pollution, and long, harsh winters increase the longing for time in green spaces. Accordingly, it is observed that there is a serious increase in people's demands for recreational sites, especially for picnic activities. However, urban picnic sites that meet people's recreational demands have not reached a satisfactory and sufficient number and size; also, they are located in only certain parts of the city. In this respect, picnic sites around the city gain more importance for the inhabitants. Our study is intended to obtain data that can later contribute to subsequent plans for picnic sites, by pointing out the factors affecting people's preferences for picnic sites. In particular, it was aimed to determine the preferences of urban dwellers in relation to picnic areas with different landscape characteristics. The prior aim was to investigate the relationships between individual characteristics and different landscape characteristics of picnic areas. Accurate designs were aimed at the construction of more livable urban areas. More successful design products can be achieved using results obtained from questionnaires. Likewise, when restoring existing recreational areas, people's desires and preferences can be considered. We anticipate that as a result of this attempt, demands for these accurately designed areas will increase and more comfortable urban living areas can be created.

## MATERIALS AND METHODS

In the present study, a questionnaire survey was applied to participants in the city of Erzurum in 2005. Location of the study area is given in Figure 1. A face to face questionnaire was performed in order to determine the recreational demands and expectations of people from nine picnicking areas in the centre of Erzurum city and its close proximity. The questionnaire survey was also carried out in the city centre in different areas. Great care was taken to ensure the smooth distribution of the number of participants with regard to the populations of the various areas. In the application of the questionnaire, participants were selected



**Figure 1.** Questionnaire areas and numbers.

randomly, and factors such as income levels, housing with or without a gardens, distance to the city centre and density of residences were considered.

Demographic questions were included in the first section of our two-part questionnaire, while in the second section, questions related to demands and preferences of people for recreational areas were taken into consideration. This was in order to determine which of the nine recreational areas are subject to greater and lesser demand. In addition, we sought to determine the expectations and desires of people from these areas.

A total of 628 questionnaires were carried out; 30 of them were carried out in poor quarters, 30 in wealthy quarters, 50 in various trade groups, 40 in various district parks, 100 at homes in Dadaskent settlement, 40 at homes in Yildizkent settlement, 10 in Kayakyolu settlement, 100 at flats in Yenisehir settlement, 80 at university and 148 in various public institutions. The chi-square test was performed for determining relationships among measured parameters using SPSS statistical package program (Özdamar, 2002; Groot and Van Den Born, 2003; Turgut et al., 2009; Schipperijn et. al., 2010).

## RESULTS AND DISCUSSION

When the general characteristics of the selected picnic

areas were considered, it was found that these could be classed as having the characteristics of religious recreational areas (Abdurrahman Gazi Tomb); water-based recreational areas (Devlet Su Isleri Lake), hot spring recreational areas (Hasankale and Ilica), river-side recreational areas (Serceme and Tortum) and rural landscape recreational areas (Dumlu and the wells of the University). Some images and features of these picnicking areas are shown in Table 1.

### The characteristics of the individuals surveyed

57% of the attendants are male and 43% female. 20% of attendants have an income level higher than \$ 681, 41% have an income level between \$341 and \$ 680, 27 % have an income level between \$171 and \$340 and 12% have an income level less than \$170, 35% of the attendants are official workers; 17% are students, 12% are self-employed, 10% are tradesmen, 8% are workers, 7% are retired and 11% belong to different sectors of occupation. 59% of the attendants, which is the largest

**Table 1.** The seven studied picnic sites with distances from the city center, the most striking aspects and the existing facilities in Erzurum.

Picnic site	Distance from city (km)	The most striking aspect	The existing facilities
Abdurrahman Gazi Tomb.	4	Views / landscape / religious quality	Water / Restaurant / Mosque / Tomb / etc.
DSI Lake	18	Pond / landscape / partly wooded field / hiking	Camellia / Children's Play field / Sport fields / Fishing by lines
Karasu	27	Landscape	Water
Hasankale	37	Thermal spring / private and public picnic sites	Accommodation / Camping / Thermal spring / Water / Restaurant, etc.
Ilıca	14	Thermal spring	Accommodation/water-restroom/ Restaurant
Serçeme Streak	40	River / different natural environments / vegetation / Visual landscape	Water
Tortum	100	Waterfall / Visual landscape / Tortum lake / Traditional architecture / Climate / vegetation / Interesting topography.	Restaurant / Restroom / Water
University wells	2	Partly wooded field/Agricultural landscape	Water / restroom.

part, are between the ages of 20 and 40, 15% are between 41 and 50, 10% are between 51 and 60, 3% are 60 and over 60.

### Evaluation of picnic sites in accordance with individual preference

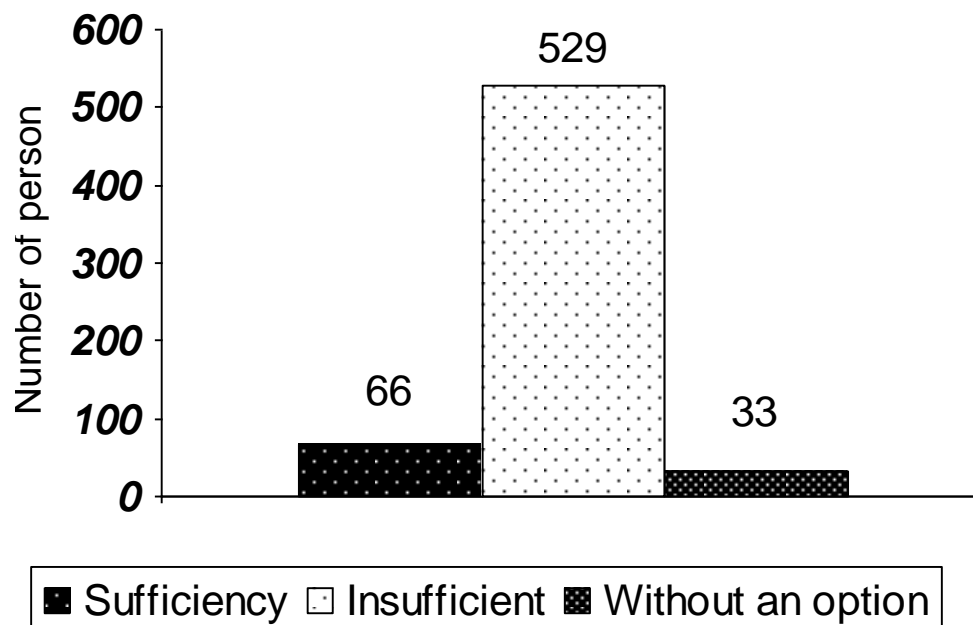
In the questionnaire, the attendants were asked whether current green sites are sufficient for Erzurum or not. Of 628 attendants, 595 (94%) replied that current open green sites are not sufficient for Erzurum city while 17 stated that they are sufficient. In Erzurum, where winters are harsh and long, longing for the green spaces is experienced as too much. Increases in the number of green sites in urban residential areas vary with the factors like speculations on construction sites, lack of land, economic problems and etc. It was also determined that the green sites are influential in the sales of houses (Groot et al., 2003; Moranco, 2003). Open green sites also increase the sustainable of the city. Insufficient open green spaces in the city centre heighten the importance attached to the picnic sites close to the city centre.

Upon examining the answers to the question of whether picnic sites are sufficient for Erzurum or not, we observed a parallelism to the answers to the preceding question. In the research, 529 (84.2%) of the total attendants reported that picnic sites are insufficient in terms of quality and quantity, while 66 (10.5%) reported that they are sufficient (Figure 2). The obtained findings

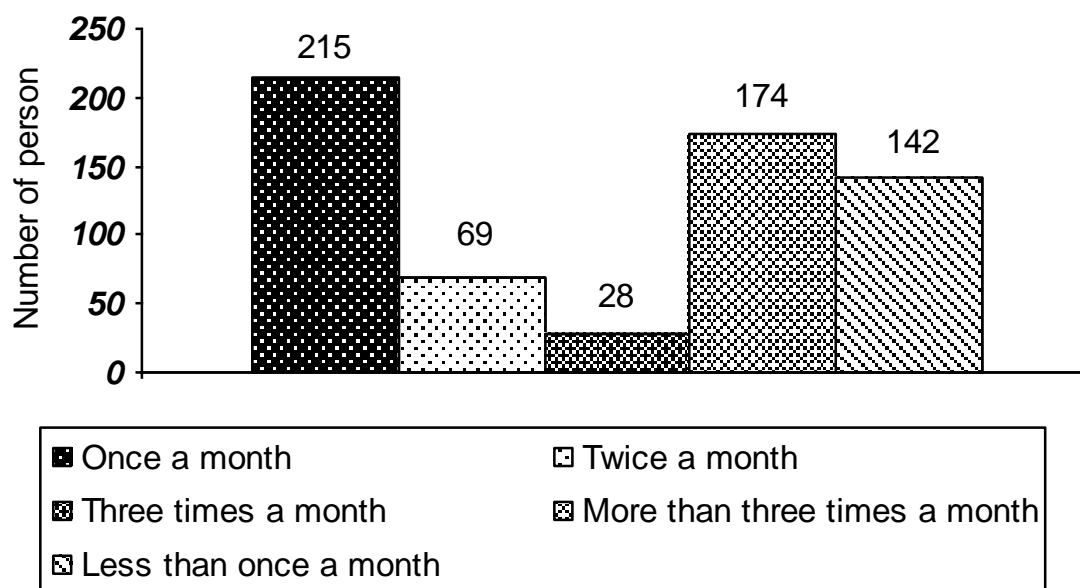
show a parallelism with the insufficiency of urban open green sites. The rate of active green sites per person in Erzurum is 0.9 m<sup>2</sup> (Eymirli, 1994). According to the public improvements regulations, the required rate for green sites is 10 m<sup>2</sup>/person. In the city of Erzurum, there is 2108 ha of open green sites belonging to official institutions; a 11.2 ha park site; a 153 ha site for transportation; a 3126 ha grove site and besides, there are a number of house garden sites of various sizes. To reach the required amount of 10 m<sup>2</sup>/person, a 300 ha green site is needed (Yilmaz et al., 2004). To prevent the developing cities from being affected negatively, current green sites should be protected and new green sites should be added to city life. (Jim, 2004)

The average frequency with which people visit the picnic sites is as follows: 215 (34.2 %) persons stated that they go to picnic once a month; 69 (11%) go to picnic twice a month; 28 (4.5%) go three times a month; 174 (27.7%) go more than three times a month. Moreover, 142 (22.6%) persons stated that they go to picnic less than once a month. (Figure 3) As it is understood from the graphic, the desire for closer contact with nature and the desire for picnics are highly widespread and all of the attendants go to picnic sites in this way or another. Research also shows that grass and wooden fields have positive effects on the social development of people. It is reported that natural surroundings and water enable people to move more calmly (Schroeder, 1991).

The relationships between preferences of participants and their gender, income level, occupation and ages



**Figure 2.** Picnic sites are sufficient for Erzurum city.



**Figure 3.** Frequency of going to picnic.

were given in Tables 3 to 6.

Upon considering the income level of the respondents, we found that the difference in the frequency of going to picnics becomes statistically significant on the level of 1% ( $\chi^2 (12)=30.9$ ,  $p<0.01$ ) (Table 2). According to the obtained results, the frequency of going to picnics also increases parallel to the increase in income level. Most of the people who have an income level less than \$170 go

to picnic less than once a month, which can be seen in the graphic. This preference shows a decrease with the increase in income level. It is observed that most of the people who have an income level higher than \$680 go to picnic more than three times a month (Figure 4).

Upon considering the occupations of the attendants, we determined a 1% difference in the average frequency of going to picnic. ( $\chi^2 (24) = 49.8$ ,  $p < 0.01$ ) (Table 2). The

**Table 2.** Chi-square evaluation of the questionnaire results.

	Gender	Income level	Occupation	Age
Are the green sites sufficient in Erzurum?	Insignificant	Insignificant	Insignificant	Insignificant
Are the picnic sites adequate in and around Erzurum?	Insignificant	Insignificant	Insignificant	Insignificant
Average frequency of visiting picnic sites	Insignificant	** $\chi^2$ 24.898 (P<0,01)	* $\chi^2$ 33.544 (P<0,05)	Insignificant
Proximity of the picnic site	* $\chi^2$ 15.5 (P<0.05)	Insignificant	** $\chi^2$ 49,79 (P<0,01)	** $\chi^2$ 42.629 (P<0,01)
Natural structure of the picnic site	Insignificant	* $\chi^2$ 25.6 (P<0,05)	* $\chi^2$ 34.608 (P<0,05),	Insignificant
Security of thee picnic site	Insignificant	* $\chi^2$ 27.007 (P<0,05)	Insignificant	Insignificant
Male-female distinction in the picnic site	Insignificant	Insignificant	insignificant	Insignificant
Presence of water, restroom, etc. in the picnic site	insignificant	** $\chi^2$ 35. (P<0,01)	* $\chi^2$ 31.255 (P<0,05)	Insignificant
Woods in the picnic site	* $\chi^2$ 13 (P<0,05)	Insignificant	Insignificant	* $\chi^2$ 21.438 (P<0.05)
Your general preference for the picnic site	Insignificant	**53.5(P<0,01)	Insignificant	Insignificant
Frequency of going to picnic	Insignificant	**30.9(p<0.01)	** $\chi^2$ 49,8(p<0.01)	Insignificant

\* Significant level of 5%, \*\* Significant level of 1%.

**Table 3.**Preference grading points in recreation sites according to gender.

	Gender	N	Mean	Chi-square
Woods in the picnic site	Man	354	298.76	-2.508*
	Woman	274	334.83	

\*significant level of 5 %

**Table 4.** Preference grading points in recreation sites according to income.

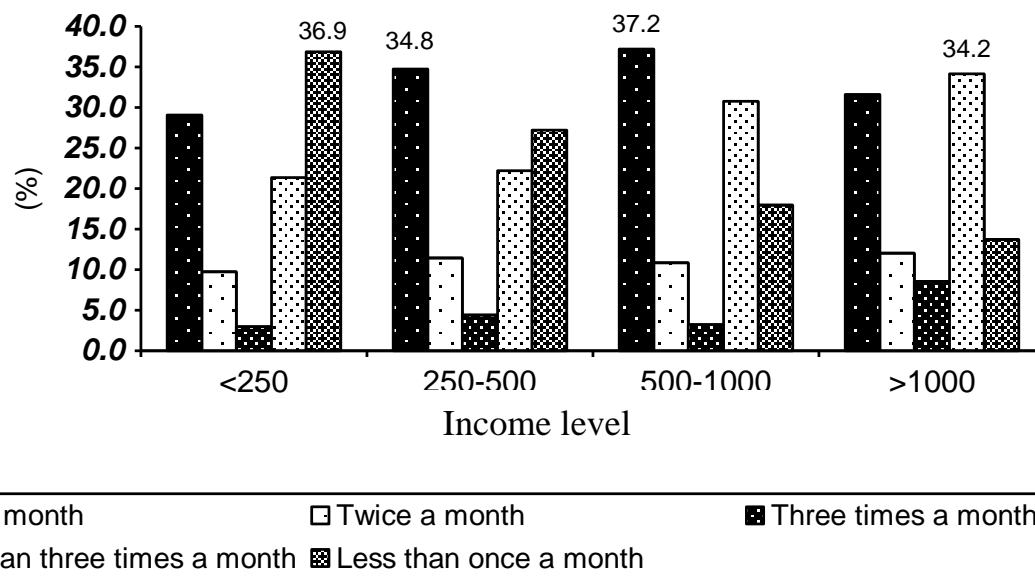
	Income level (\$)	N	Mean point	Chi-square
To be near	<170	103	353.90	10.133*
	171-340	158	330.21	
	341-680	250	293.57	
	>681	117	303.33	
To be safe	<170	103	329.94	12.484**
	171-340	158	348.28	
	341-680	250	304.40	
	>681	117	276.87	
Water-Restroom	<170	103	252.07	22.763**
	171-340	158	294.26	
	341-680	250	337.35	
	>681	117	347.97	

\*significant of level 5%,\*\* significant of 1%

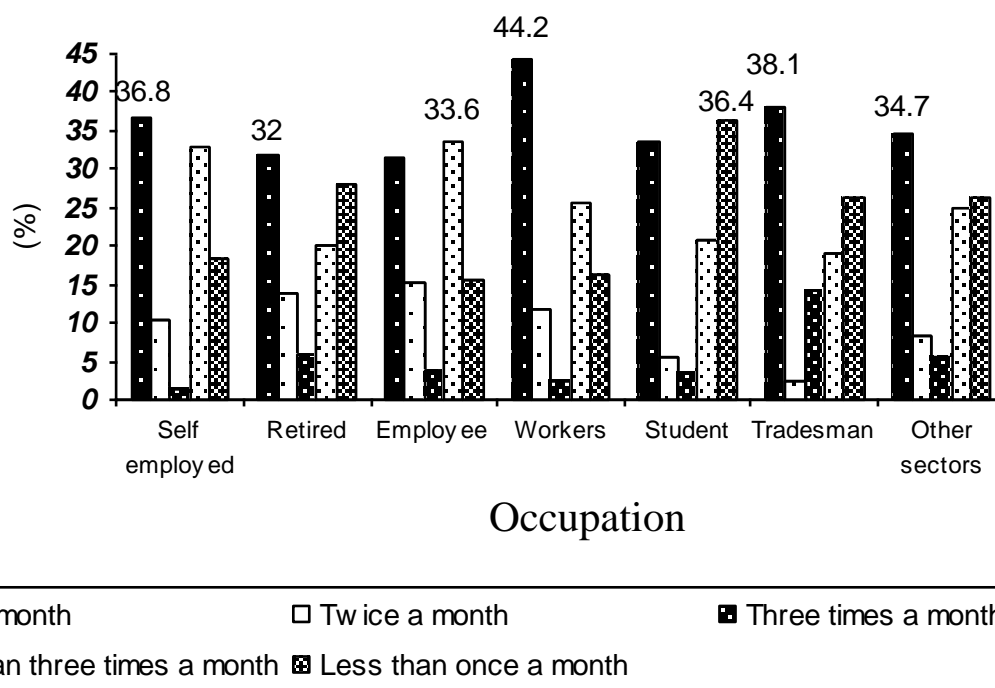
selfemployed, the retired, workers, tradesmen and most of the attendants who work at other sectors stated that they go to picnics once a month. The majority of officials stated that they go to picnics more than three times a month and the majority of students stated that they go to picnics more than once a month (Figure 5).The fact that the retired and students have no enough time and have economically limited opportunities affects the result; it is also thought that the self-employed, workers and

tradesmen can go to picnics once a month as they do not have enough time to go more often.

Previous research has determined that people confined to the roofed places need open green sites more (Grahn and Stigsdotter, 2003). In this study, similar results have been obtained. Depending on the socio-economic structure, all of the attendants join picnic activities more or less. Undoubtedly, extreme winter conditions in Erzurum increase dwellers' desire to be in natural



**Figure 4.** Frequency of going to picnic according to income level.



**Figure 5.** Frequency of going to picnic according to occupation.

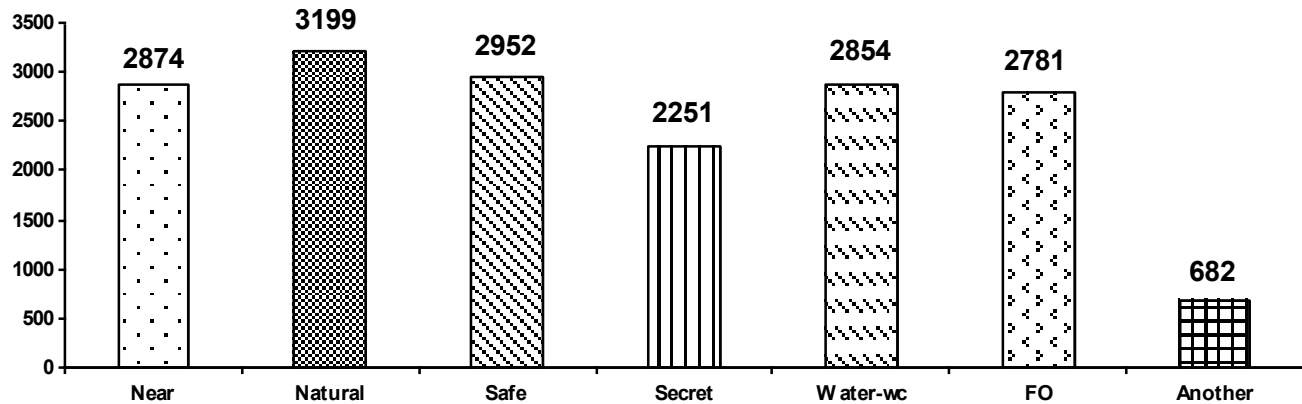
surroundings in summer times.

The picnic sites around Erzurum are preferred for various reasons. The scorings of the criteria taken into consideration while preferring the picnic sites are shown in Figure 6.

Artificial environments and environmental problems faced in urban locations increase the longing for natural sites (Kahn, 1999). People want to be far from stressful

urban environments, standing face to face with quiet, natural, thickly wooded or untouched and pure landscape. As a matter of fact, Ozguner and Kendle (2006) and Ohta (2001), observed in their studies that natural sites have largely positive effects on people and such sites are preferred much more.

Natural sites play an effective role in the expression of people's psychological aesthetic feelings (Macnaghten et



**Figure 6.** Criteria and grades considered when picnic sites are preferred.

al., 1998). Of the picnic sites in Erzurum, Serceme, Tortum, Dumlü and DSI Lake come to the fore with their natural features. However, Tortum and its vicinity, among others, appear to be quite striking and attractive with many of its recreational features, such as waterfalls, nature, landscape, traditional architecture and interesting topography (Table 1, Appendix). The fact that Tortum picnic sites are far from the city centre prevents most people from using these sites, even though they want to have a picnic in such natural sites.

Statistical relations between the closeness of picnicking areas to the living areas, their naturalness, safety and being in forest areas, and gender, income level, occupation, and age are given.

The majority of women have remarked that the picnic sites should be wooded, while fewer men have found it a necessary condition. This difference between genders has been found statistically significant (Table 3).

The individuals with an income level less than \$170 have mostly preferred the nearer picnic sites in their choice. The ones who mostly prefer the picnic sites to be safe and secure are those with an income level between \$171 and \$340. The group who demand the presence of restroom and water for their choice of the picnic sites include the ones with an income level higher than \$681. The difference between the income level discrepancies and the scores for the reasons for preference mentioned above has been found statistically significant (Table 4).

Upon examining the occupational groups, we determined that it is the retired who mostly prefer the closeness of these sites in the first line; it is the students that mostly want these places to have restroom and water facilities and to be wooded; it is the officer-workers that mostly want the picnic sites to be natural. The differences between the answers have been found statistically significant (Table 5).

Analyzing the age differences of the individuals included in the study, we have found that preference of the picnic sites for its nearness is statistically significant. As the average age increases, the scores given by those who ask the picnic sites to be nearer also increases

(Table 6).

Upon examining all the individuals in the questionnaire, it has been observed that of the picnic sites studied here, the one that attracts the highest demand is Tortum and Tortum Road. Tortum and its waterfall are the settlements far nearly 100 km from the city centre of Erzurum. As the income level increases, there also appears an increase in the preference for Tortum as a picnic site. To go there for a single day, one should have his or her own car. The distance between the picnic site and settlement should be close enough to be easily accessible to people. Although Tortum waterfall and its vicinity come to the fore with its natural and cultural recreational features, it is visited daily only by those who have a certain level of income.

Upon examining all the income levels, it has been observed that of the picnic sites studied here, the one that attracts the highest demand is Tortum and Tortum Road. Depending on the increase in income level, however, an increase can be observed in the number of the ones preferring them in the first line (Figure 8). An examination of the picnic sites in terms of income level groups has shown that the sites preferred for picnic show a 1% difference ( $\chi^2(24)=53.5$ ,  $p<0.01$ ) (Table 2).

Figure 7 presents the percentage of the sites preferred as picnic sites. Therefore, it will be judged that one of the most important reasons why Tortum is frequented so much (40%) is its natural pattern (Table 1, Appendix). Hasankale and its vicinity take the second line in terms of preference. The presence of thermal springs or spas in this site has increased the rate of preference as well as the common culture of visiting the spas among the people living in and around Erzurum. Interestingly, however, the settlement of Ilica has the lowest rate of preference (4%) in spite of being a thermal spring center and being much closer to the city centre. We believe this must be the result of the fact that there are hardly any wooded sites in Ilica. The third line in preference belongs to the university wells. There are several factors of this preference: It is wooded, close and easily accessible and has got a sufficient substructure. DSI Lake is preferred



**Table 5.** Preference grading points in recreation sites according to occupation.

	Occupation	N	Mean	Chi-square
To be near	Self employed	76	315.56	32.416**
	Retired	50	432.43	
	Employee	235	299.10	
	Worker	43	364.14	
	Student	110	274.65	
	Tradesman	42	317.89	
	Other sectors	72	311.02	
Water-Restroom	Self employed	76	288.77	13.589*
	Retired	50	266.71	
	Employee	235	325.42	
	Worker	43	256.53	
	Student	110	336.14	
	Tradesman	42	316.27	
	Other sectors	72	339.74	
To be natural	Self employed	76	317.94	16.343*
	Retired	50	251.53	
	Employee	235	341.29	
	Worker	43	339.86	
	Student	110	302.48	
	Tradesman	42	302.30	
	Other sectors	72	277.49	
To be wooded	Self employed	76	288.03	15.683*
	Retired	50	265.58	
	Employee	235	321.49	
	Worker	43	261.09	
	Student	110	353.84	
	Tradesman	42	304.73	
	Other sectors	72	331.09	

**Table 6.** Preference grading points in recreation sites according to age.

	Age	N	Mean	Chi-square
To be near	10-19	83	270.68	22.352*
	20-40	372	303.93	
	41-50	97	333.96	
	51-60	59	375.45	
	Over 61	17	437.12	

with a rate of 8%. The presence of water-based recreational activities in that site is one of the reasons for preferring it. The presence of adequate substructure is also another factor. Abdurrahmangazi Tomb and its vicinity are preferred with a rate of 7%. It is much close to the city centre (4 km) and is easily accessible. The chance to picnic, when combined with the opportunity to visit the religious institutions there, plays an important

role in the rate of preferring that site. However, the scarcity of wooded sites reduces the demand and preference for that site. With all these qualities, Abdurrahmangazi Tomb is one of the places frequented by those with an income level lower than \$170. Ilica, Dumlu and the other sites take their place in the order of preference with 4%. The scarcity of wooded areas is one of the most obvious reasons why they are preferred to

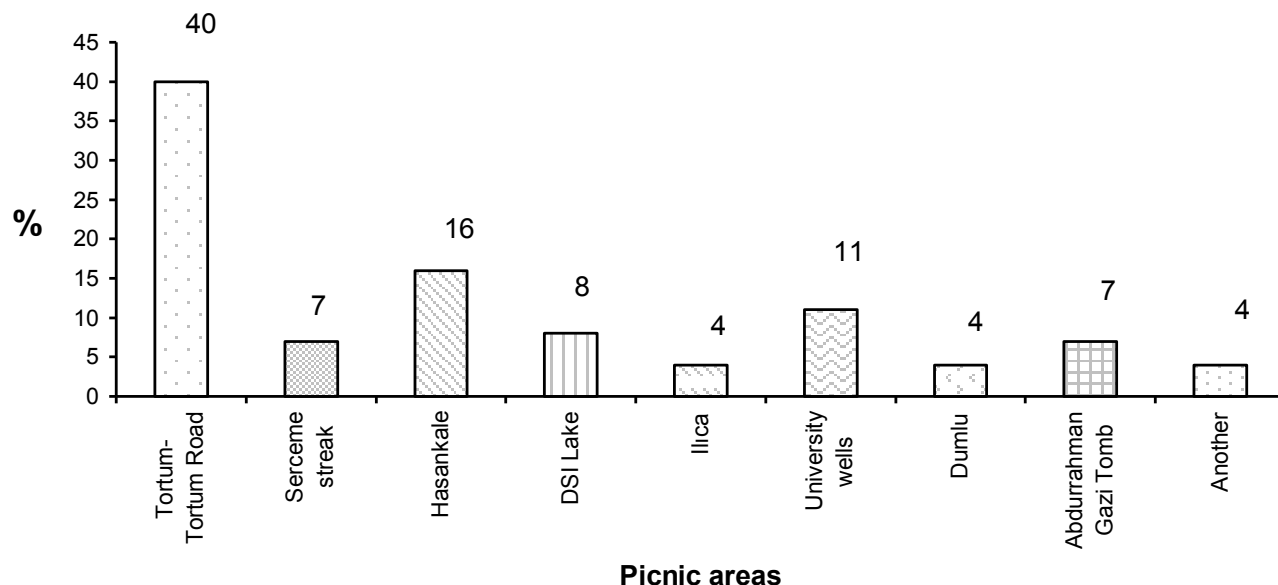


Figure 7. Preference ranking for picnic sites.

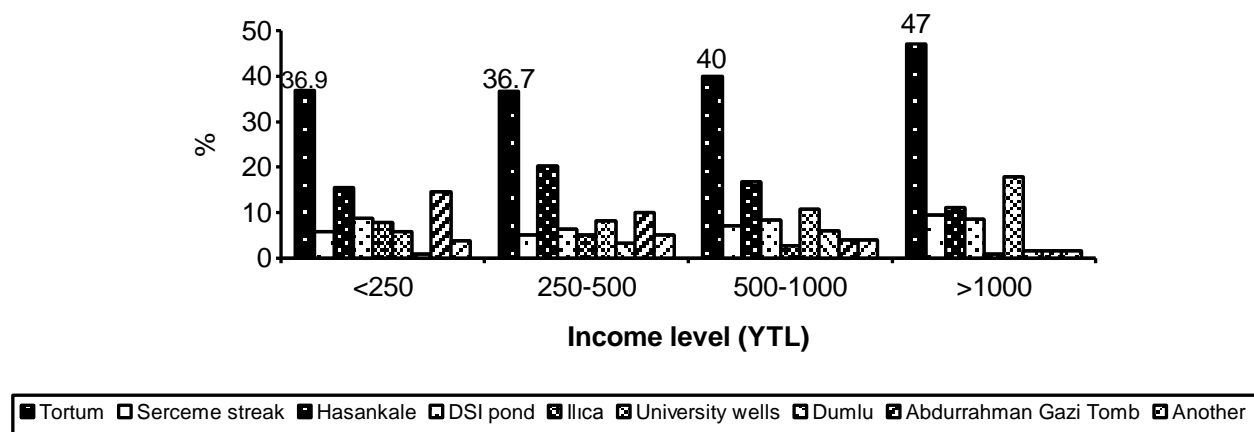


Figure 8. Preferential places for picnic sites according to income level.

the smallest extent.

## Conclusions

In the field of recreation the overall satisfaction of visitors is considered to be a motivation for different recreational behavior patterns (Keogh, 1989; Baker and Crompton, 2000). For instance, the influence of factors such as: absolute shortage of space, service or recreational facilities, low quality of facilities, very hot weather, inconvenient access to interest points, insufficiently attractive natural assets or damage to the natural resources may decrease users' satisfaction from the visit, leading to behavioral reactions such as shifting the activity within a single location (intra-site displacement),

change in the frequency of visits to the site or shifting to a different location (inter-site displacement) (Hall and Shelby, 2000; Hammitt and Patterson, 1991; Kuentzel and Heberlein, 1992; Fleishman et al., 2007).

The city centre of Erzurum is experiencing a rapid development and the changes in people's socio-economic structure have made it necessary to seek new approaches. Extreme climate conditions increase demand for recreation taking place in nature and natural sites. City dwellers fail to find open green fields to meet their recreational activities within the city centre. Depending on the rise in car ownership, the picnic sites around the city are in high demand, especially at weekends. The questionnaires have already shown that city dwellers are not satisfied with the picnic sites; they find them inadequate in number and quality (Yilmaz et al.,

2006). However, they are favored despite their insufficiencies in terms of recreational substructure and infra structure. In particular, picnic sites with natural landscape and beauty are preferred to the largest extent according to the income level, age, gender and occupational groups.

Large differences have been determined in preferences for picnic sites as regards the income level, gender, age and occupational groups. Doubtless, socio-economic structure affects the recreational activities. The areas close to the city centre are preferred by the elderly people and those with a lower income level, while the further sites are preferred by the ones with a higher income level (Table 2).

The existing picnic sites should be provided with the required equipment, structure and regulations by considering the socio-economic structure and without distorting the natural pattern. In addition, local administrations should make it possible to go to and return from the picnic sites in a single day.

People who satisfy their recreational needs will be happier and this will affect their living favorably. From this point of view, when designing a recreational area, designs should be made considering each age group so that urban people can find what they seek. In designs, income levels and socio – cultural situations of utilizing people should be taken into consideration. When designed well, areas without problems for accessibility can be in greater demand.

According to the results of the questionnaire, it can be said that participant place importance on natural beauty. However, it was emphasized that in order to prefer these areas recreational infrastructures are essential. When we considered Table 3, it was seen that people prefer recreational areas not necessarily to be constructed in forest areas. Even though both have equal natural beauties, Tortum was preferred much more than Serçeme, where recreational infrastructure is weak.

Again, from the results of the questionnaire, it was found that public interest toward water is greater than with other elements. Water has priority for the people using picnicking areas. Lakes or river sides are more preferential. This situation is also valid for the pools in urban areas. In urban areas people prefer the seats closest to water surfaces, if present. When considering this result, we conclude that water is an inevitable element in these designs and that such consideration should absolutely be given a significant place in designs considering active use of watersides by large number of people.

People prefer the areas with natural beauties more (Table 2). However, their visit to these areas varies depending on the facilities in these areas. These areas can attract more visitors if they are designed as to meet recreational needs. Income level and occupation were found to be statistically significant in this respect.

Recreational areas in urban areas are indeed relaxing

and refreshing areas. It is not hard to reach these areas. As such, these areas should be designed to meet needs of people and they should be made centers of attraction. In recent years, shopping malls have been attracting more visitors than recreational areas in Turkey. This is indeed a serious problem in the cities in Turkey. Among the reasons why people prefer these areas is the fact that these structures have great facilities for human comfort such as car parks. However, people cannot get the same pleasure from these areas as they get from recreational areas. People cannot relax or refresh themselves in shopping malls, they cannot get leave their stress behind. Therefore, recreational areas in and around the cities should be designed with the aim of satisfying the needs of people. In this way recreational areas will be preferred more and people will be more comfortable. This is an important point for also the next generation since open and green spaces serve as open laboratories for children where they can see and learn nature with different living species. As long as children are not provided with such areas, they lack a vital resource and an important contrast to computer monitors, which may in turn lead to a more troubled community. This unfavorable condition can be corrected by local governments through the application of appropriate and accurate designs for landscape architecture, so that local people can find comfort and peace.

Demands, needs, expectations and, more generally, the will of the disabled and the old should be included in the designs of recreational areas. As can be seen in Table 6, closeness of recreational areas to living areas is a preferred feature by the old and the retired.

In very recent years, playgrounds have found a place in the designs of picnicking areas. There is a tendency for people to see playgrounds in terms of some modular parts for playing in a sandy place. However, playgrounds are far more than that and they should be designed by considering appropriate age groups since these areas are vitally important for children (Fjørtoft and Sageie, 2000; Yilmaz and Bulut, 2007).

The results of the present study can shed light on the design principles of recreational areas for the future. In addition, it can also inform judgments regarding the principles to be used in the restoration existing recreational areas. Under such circumstances, we believe, life in the cities can be made easier, where people are enabled to find peace and be happy, since they produce less in the way negative attitudes. Therefore, landscape architects should monitor and investigate desires and biases of people well. They should achieve designs for people to live in more comfortable areas.

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