



The Examination of Urban Furniture in Bülent Ecevit University Farabi Campus in Terms of Landscape Design

Canan CENGİZ¹, Deniz KARAEMLAS², Pelin KEÇECİOĞLU DAĞLI^{1,*}

¹ Bartın Üniversitesi, Orman Fakültesi, Peyzaj Mimarlığı Bölümü, 74100, BARTIN

² Bülent Ecevit Üniversitesi, Çaycuma Gıda ve Tarım Meslek Yüksekokulu, 67900, Çaycuma ZONGULDAK

Abstract

Urban furniture are the elements with different qualities and quantities that define and complement places which ease the individual and social life of people within the urban texture, enables communication between individuals while providing a certain functional and aesthetic meanings to places. At the same time, they give visibility and identity to the city. In this regard, urban furniture are aesthetic elements that make the spaces usable, pleasant and comfortable at university campuses with a high user population thereby making positive contributions to social life. It is important that urban furniture positioned to meet the demands of individuals in campuses such as acquiring knowledge, circulation control, comfort, entertainment and safety are evaluated with regard to spatial comfort and planting design. In this scope, Bülent Ecevit University Farabi Campus located at the Western Black Sea Region of Turkey has been selected as the study area. Spatial characteristics, urban furniture elements and widely used plant species inside the Farabi Campus have been determined in this study by way of field studies. Face-to-face surveys were applied to the user group at the Bülent Ecevit University Farabi Campus comprised of academic staff, administrative staff, students and private sector employees. Survey results were evaluated via SPSS Statistics 22.0 software. Frequency Analysis and Chi-Square Test were applied for determining the differences between users regarding urban furniture and plant use, their preferences as well as demands and tendencies. Important and statistically significant relationships were determined in relations and preferences between the urban furniture elements and the people who use them with regard to their education levels, professions, objectives for campus use, whether the urban furniture elements are well-kept or not and whether they are used in accordance with the campus identity or not in addition to determining the sufficiency of the campus with regard to landscape design. Positive-negative relationships between user-plant, user-urban furniture were determined as a result of the application. In conclusion, suggestions were developed for the landscape design of Bülent Ecevit University Farabi Campus.

Keywords: Urban furniture, landscape design, participatory approach, user preference, Bülent Ecevit University Farabi Campus.

Bülent Ecevit Üniversitesi Farabi Yerleşkesi'ndeki Donatı Elemanlarının Peyzaj Tasarımı Açısından İrdelenmesi

Öz

Donatı elemanları, insanın kent dokusu içindeki bireysel ve toplumsal yaşamını kolaylaştıran, bireyler arası iletişimi sağlayan, mekâna işlevsel ve estetik açıdan belirli bir anlam kazandıran, farklı nitelik ve niceliklerde olan, mekânı tanımlayan ve tamamlayan özellikteki objelerdir. Aynı zamanda kente görsellik ve kimlik kazandıran öğelerdir. Bu bağlamda donatı elemanları yoğun kullanıcı kitlesine sahip üniversite yerleşkelerinde mekânı kullanışlı, zevkli ve konforlu hale getiren estetik elemanlar olup sosyal yaşama olumlu katkılar sağlamaktadır. Yerleşkelerde insanların bilgi edinme, dolaşım kontrolü, konfor, eğlenmek, güvenlik gibi ihtiyaçlarına karşılık gelecek nitelikte konumlandırılan donatı elemanlarının mekansal konfor ve bitkisel tasarım açısından değerlendirilmesi önem taşımaktadır. Bu kapsamda, Türkiye'nin Batı Karadeniz Bölgesi'nde yer alan Bülent Ecevit Üniversitesi Farabi Yerleşkesi araştırma alanı olarak seçilmiştir. Çalışmada, arazi çalışması ile Farabi Yerleşkesi içerisindeki peyzaj donatı elemanları ve yoğun kullanılan bitki türleri belirlenerek, kullanıcı tercihlerinin ortaya konulması hedeflenmiştir. Bu bağlamda, Bülent Ecevit Üniversitesi Farabi Yerleşkesi bütününde akademik personel, idari personel, öğrenci ve işçilerden oluşan kullanıcı grubuna yüz yüze anket çalışması uygulanmıştır. Anket sonuçları SPSS Statistics 22.0 programı kullanılarak değerlendirilmiştir. Frekans Analizi ve Ki-Kare Testi uygulanarak kullanıcıların donatı elemanları ve bitki kullanımı konusundaki farkındalıkları ve tercihleri ile bu yönde talep ve eğilimleri tespit edilmiştir. Donatı elemanları ile onu kullanan kişiler arasındaki ilişki ve tercihlerde eğitim düzeyleri, meslekleri, kampüsü kullanım amaçları, donatıların bakımlılığı ve yerleşke kimliğine uygun olarak kullanılıp kullanılmaması ve kampüsün peyzaj tasarımı açısından yeterliliğinin belirlenmesinde önemli ve anlamlı ilişkiler saptanmıştır. Uygulama sonucunda kullanıcı-bitki, kullanıcı-donatı arasındaki olumlu-olumsuz ilişkiler ortaya konulmuştur. Sonuçta, Bülent Ecevit Üniversitesi Farabi Yerleşkesi'nin peyzaj tasarımına yönelik öneriler geliştirilmiştir.

Anahtar Kelimeler: Donatı elemanları, peyzaj tasarımı, katılımcı yaklaşım, kullanıcı tercihleri, Bülent Ecevit Üniversitesi Farabi Yerleşkesi.

*Sorumlu Yazar (Corresponding Author):

Pelin KEÇECİOĞLU DAĞLI; Bartın Üniversitesi, Orman Fakültesi, Peyzaj Mimarlığı Bölümü, 74100, Bartın-Türkiye. Tel: +90 (378) 223 5130, Fax: +90 (378) 223 5062, E-mail: pkececioglu@bartin.edu.tr ORCID No: 0000-0003-2419-0147

Geliş (Received) : 10.08.2018
Kabul (Accepted) : 11.09.2018
Basım (Published) : 15.12.2018

1. Introduction

Elements that are placed at a certain area for meeting the demands of individuals with regard to comfort, information, circulation control, protection, entertainment are known as “Urban Furniture” (Düzenli et.al., 2017, Nayim et al. 2003). Within the scope of industrial products, urban furniture were first popularized in England followed by European countries and America after which they became an important part of urban architecture in a short period of time. It is known that the first examples of urban furniture are the gas lamps placed for lighting the environment in England in 1790 (Yıldırım, 2011). Urban furniture has gained importance in cities where technological developments are used intensively following the Industrial Revolution (Yazıcı, 2007).

The tendency for fast, irregular and unplanned urbanization in our country along with plans and applications that are not based on an ecological foundation bring forth many different issues thereby affecting the human health and quality of life negatively. Thus, cities with such a structure detract people from natural environments and monotonize, while also resulting in adverse physical and mental impacts. This increases the need for open-green spaces and urban furniture elements (Erdem, 1995).

Urban furniture are products that establish the communication between urban life and social life. People need a natural environment as well as an artificial environment to be able to continue their lives. Majority of the products inside the city make up the urban furniture thereby forming the artificial environment (Şişman and Yetim, 2004). Plants are also used as living materials for generating the artificial environment, increasing its quality and ensuring its sustainability (Kurdoğlu et.al., 2013).

Urban furniture includes objects that simplify individual and social lives of people in the urban texture, ensure communication between individuals, and provide a certain functional and aesthetic meaning to spaces with different qualities and quantities used for defining and complementing spaces (Bulut et.al., 2008). The urban reinforcements, as part of the urban system, should show continuity in terms of ergonomic, aesthetic and usage (Çelikyay and Karayılmazlar, 2016). Hence, they are of significant importance not only for functional purposes but also with regard to their refreshing impact on urban landscape (Güremen, 2011). In this regard, urban furniture are elements that provide a visual quality and identity to the city (Taylor, 1999; Cengiz and Keçecioglu Dağlı, 2017). Elements such as statues, signboards, banks etc. used for accentuation together with elements such as walls, fences etc. that are used for edging provide a sense of richness that renders the city stronger (Taylor, 1999).

Urban furniture elements designed in consideration of the safety and comfort of people and in accordance with the standards, themselves and urban texture will increase the urban quality of life. Urban furniture elements which cannot fulfill their functions due to erroneous applications will transform into objects that cause visual pollution (Sağlık et.al., 2014; Yıldırım, 2011). Accordingly, the benefits provided by the space are among significant indicators of spatial quality (Aydın and Ter, 2008).

Characteristics of urban furniture elements can be listed as below (Perçin, n.d.):

- Urban furniture elements are complementary, indicative, directive and informing elements.
- A physical dimension including characteristics such as scale, color, material, form etc. and a cultural dimension that can be interrelated with urban identity can be mentioned for urban furniture elements.
- Urban furniture elements that display social, cultural and economic characteristics have to be designed in accordance with functions that meet the different demands of urban individuals.
- Urban furniture elements have to be in accordance with the location, size and meaning of the urban space and they should reflect the characteristics of the environment they are located in.
- Urban furniture elements should also be taken into consideration with regard to the psychological comfort they provide to the users.
- Urban furniture elements should be considered with references to the cultural, social and ideological structure of the society other than the different requirements of users. Urban furniture elements are also evaluated as cultural elements that reflect the culture of users.

Urban furniture elements should be in accordance with certain standards with regard to ergonomic and physical characteristics, they should be appropriate with regard to functional and aesthetic design, high feasibility and strength, compliance to the unique style of the designer as well as material and labor, portability, mountability and availability of spare parts; they should be easy to maintain, they should be strong and resistant against vandalism (Yazıcı, 2007; Aksu et.al., 2011). Urban furniture elements in a developed city are evaluated as identity elements which define the space that they are located in while also rendering it livable and perceivable (Bayraktar et.al., 2008; Özer et.al., 2010; Olgun and Erdoğan, 2016).

Good quality green spaces have several benefits that range from economic to environmental aspects of cities. The main benefits of green spaces under four headings (economic, social, environmental, urban development) that are commonly used to define quality of life and in relation with sustainable development (Cengiz et al. 2012). When the functional structure and obligations of campuses are taken into consideration as an important component of the urban green space system, it can be realized that universities are institutions which have to meet all the demands and requirements of all its users (Açıksöz et.al., 2014). Campuses are locations where users spend a major part of their day in (Yazıcı, 2007; Cengiz et. al., 2018). Whereas urban furniture elements used in campuses may affect the life of users with their characteristics enabling socialization as well as information transfer. In this regard, urban furniture elements are aesthetic elements which make campus life fun and comfortable with positive impacts on social life as well. Urban furniture elements are products that aim to improve the quality of life of users that ease the relationships between the environment-people, that protect the environment and the users that gives a message while supporting the concept of identity (Yazıcı, 2007).

It is important that evaluations with regard to spatial comfort and plant design are carried out for urban furniture elements that are placed to meet the demands of users in campuses such as acquiring information, circulation control, comfort, entertainment, safety. In this scope, Bülent Ecevit University Farabi Campus was selected as the study area. The purpose of the study was to determine the quality and quantity of the urban furniture elements in the campus and to put forth their accordance with plant design in addition to putting forth user preferences.

2. Materials and Method

Materials

The main material of the study was comprised of the Bülent Ecevit University Farabi Campus located at the city of Zonguldak in the Western Black Sea Region of Turkey with coasts at the Black Sea to the west and north (Figure 1).



Figure 1. The location of the study area

Bülent Ecevit University (BEU) was established as Zonguldak Karaelmas University in accordance with the 9th Additional Clause of the Law Numbered 3837 published in the Official Gazette dated 11.07.1992 and numbered 21281. The name of the Zonguldak Karaelmas University was changed as “Bülent Ecevit University” in accordance with item 18 of the law numbered 6287 published in the Official Gazette dated 11.04.2012 and numbered 28261. BEU is now an institution with about 41.000 students, 1226 academic staff and 1250 administrative staff. Education is ongoing with a structure comprised of 13 Faculties, 3 Institutes, 5 Colleges, 8 Vocational Schools and 1 State Conservatory including the city of Zonguldak and its districts (URL-1).

The Bülent Ecevit Üniversitesi Farabi Campus selected as the study area has a total area of 205,679 m². The total closed area inside the campus is 107,547 m²’dir. There are administrative buildings, educational buildings,

boarding houses, dormitories and socio-cultural facilities inside the study area. Farabi Campus is used by 38,787 people (URL-1).

BEU Farabi Campus is quite rich in terms the number of plant species it contains. The campus has a rich flora with recreational and viewing areas for students as well as walkways, food-drink and sports areas (Figure 2).



Figure 2. Images from the BEU Farabi Campus (URL-2; Original, 2018)

Other materials of the study are comprised of relevant local and foreign literature as well as photographs and data acquired via observations during field studies.

Method

The method of the study is comprised of 4 stages:

- Stage 1: Carrying out a field study for determining the spatial characteristics of the Farabi Campus, urban furniture and extensively used plant species,
- Stage 2: Preparing survey form in accordance with the data acquired during field studies and applying it to users of the study area,
- Stage 3: Uploading the survey data to SPSS 22.0 software and carrying out statistical evaluations,
- Stage 4: Suggestions for landscape design were developed for the Bülent Ecevit University Farabi Campus according to the data acquired as a result of the studies.

The survey applied on the user group comprised of the academic staff, administrative staff, students and workers at Bülent Ecevit University Farabi Campus was comprised of 2 sections. The first section contains 7 questions about the demographic structure of the users, whereas the second section contains 11 questions about the study area. The survey comprised of a total of 18 questions was applied face-to-face during March-April-May 2018. The application lasted about 10 minutes on average and was applied by the researchers. The survey was applied on 525 people and 506 were considered as valid. Of those who participated in the survey application 84,8% (429 people) were students, 13,6% (69 people) were administrative staff, 1,2% (6 people) were academic staff and 0,4% (2 people) were workers. While 13 questions in the survey were multiple choices, 5 required the listing of the first 3 preferences. SPSS Statistics 22.0 software was used in evaluating the survey results. Frequency Analysis and Chi-Square Test were applied.

The awareness and preferences of the users with regard to urban furniture elements and plant use were determined during the survey study in addition to their demands and tendencies. Positive-negative relationships between the user-plant, user-urban furniture element were put forth as a result of the application.

3. Results and Discussion

Results regarding the spatial characteristics, landscape urban furniture elements and extensively used plant species at the Farabi Campus

Bülent Ecevit University Farabi campus has a mountainous and rough land structure and is located parallel to the sea. The city of Zonguldak is known as “the city of stairs” and there are also many stairs inside the campus. Two gates have to be passed while moving upwards towards the buildings after entering the campus from the sea level.

Rectorate building, a large square and car park are located at the main entrance of the campus. Guest house, SKS, ÖSYM office, study halls, dining hall, Sezai Karakoç Culture Center and a canteen with a terrace is located on the square. There is a decorative fountain pool that emphasizes the square in front of the guest house. There are green spaces comprised of small plots of land in front of the Sezai Karakoç Culture Center where high lightings, waste bins and banks can also be seen. In addition, there are also pane trees as well as wooden flowerpots on the square with wooden banks placed alongside them (Figure 3).

One can reach the outdoor sports fields, indoor sports hall and various faculty buildings after going down the stairs located at three sides of the square. There is a waterfall right where the stairs end which has become a symbol. The famous statue of Farabi is also located in this area. The square also used actively during times of school activity. There are open green areas and banks for spectators right next to the outdoor sports areas (Figure 3).

The boarding houses inside the campus are comprised of 6 buildings, they are located on an inclined area and there are staircases for access between these buildings. The stairs are fitted with low and high lightings. There is a playground and bench area in front of the boarding house. One can reach the football field, after going down the stairs. There is a wooden amphitheater right next to it for viewers.

In general, the urban furniture elements used inside the Farabi Campus are comprised of high and low lightings, waste bins, seating elements, edging elements, boards for information and guiding, plastic objects (statues, decorative elements, etc.), cover elements (shaders, pergola etc.) and water elements (Figure 3).

Plant species that are used most frequently inside the campus are *Platanus orientalis* (Oriental Plane), *Pinus nigra* (Black Pine), *Picea orientalis* (Eastern Picea), *Abies bornmülleriana* (Eastern Black Sea Fir), *Aesculus carnea* (Red Horse Chestnut), *Cupressocyparis leylandii* (Leyland Cypress), *Cupressus arizonica* (Arizona Cypress), *Cedrus atlantica* (Atlas Cedar), *Robinia pseudoacacia* (Black Locust), *Malus floribunda* (Japanese Flowering Crabapple), *Thuja orientalis* (Oriental Arborvitae), *Nerium oleander* (Oleander), *Euonymus japonica* (Euonymus), *Hydrangea macrophylla* (Hydrangea), *Rosa* sp. (Rose), *Hedera helix* (Ripple Ivy) and *Juniperus horizontalis* (Creeping Juniper) (Figure 3).

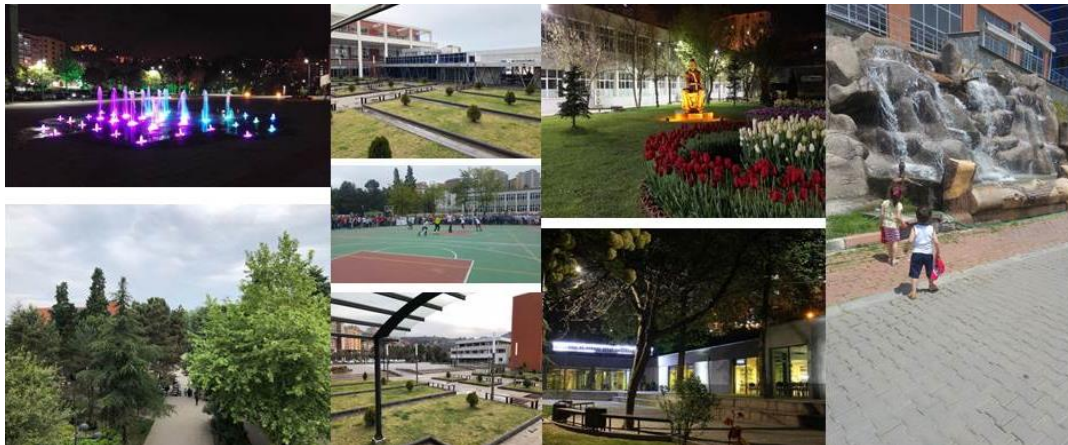


Figure 3. Photographs from the campus (Original, 2018)

Findings related with the demographic structure of the participants

A total of 506 people participated in the survey. Demographic information related with the participants comprised of 53,8% (272 people) females, 46,2% (234 people) males were put forth via Frequency Analysis, whereas comparisons indicating statistically significant relationships with their demographic structures were put forth via Chi-Square Test.

Majority of the participants were in the 20-29 age interval with a ratio of 69,8% (353 people) followed by 16-19 age interval with a ratio of 16,8% (85 people). When the education level of the participants were examined, it can be observed that university students were ranked first with a ratio of 83,4% (422 people). The remainder was 9,1% (46 people) for university graduates with a profession, 3,4% (17 people) for master's degree students, 3,4% (17 people) for high school graduates, 0,4% (2 people) for doctorate degree students and 0,4% (2 people)

for primary school graduates. It was observed upon examining the professions of the participants that undergraduate students comprised the majority (84,8 % - 429 people). This was followed by administrative staff with 13,6% (69 people), academic staff with 1,2% (6 people) and workers with 0,4% (2 people). It was determined that 52,4% (265 people) of the participants reside at their own private residences, 47,6% (241 people) stay at dormitories. While 85,6% (433 people) of the participants indicated that they have been using the campus for 1-5 years, 6,3% (32 people) indicated that they have been using the campus for 6-10 years, 5,7% (29 people) for 11-20 years, 2% (10 people) for 21-25 years and 0,4% (2 people) for 26-35 years. Whereas 83% (420 people) of the participants use the campus for education purposes, 15,4% (78 people) use it for workplace/working purposes, 1,6% (8 people) for accommodation purposes (guest house). None of the users use the campus for residential purposes (boarding house).

According to the Chi-Square Test results, it can be observed that the academic and administrative staff have been using the campus for at most 11-20 years, that the workers have been using the campus for periods of time ranging between 6-10 years and 21-25 years and that students have been using the campus for most for 1-5 years (Table 1). When the relationship between the professions of the users and their objectives for using the campus was examined, it can be observed that the academic and administrative staff use the campus for work related purposes, workers use the campus for accommodation purposes as well as workplace/working purposes, and that the students use the campus for education purposes. It was determined upon examining the relationship between the education level of the participants and their objectives for using the campus that the undergraduate students comprised the majority of the campus users and that the students use the campus mostly for education purposes. It was observed that the master's degree students are using the campus mostly for working purposes (Table 2).

Table 1. Chi-Square Test result indicating the relationship between profession and duration of campus use

			Your profession?				
			Academic Staff	Administrative Staff	Worker	Student	Total
For how long have you been using the campus? x ² : 406,155 ^a , p<0,05	1-5 years	f	1	11	0	421	433
		%	0,197	2,173	0	83,201	85,57
	6-10 years	f	1	23	1	7	32
		%	0,197	4,545	0,197	1,383	6,32
	11-20 years	f	4	25	0	0	29
		%	0,790	4,940	0	0	5,73
	21-25 years	f	0	9	1	0	10
		%	0	1,778	0,197	0	1,97
	26-35 years	f	0	1	0	1	2
		%	0	0,197	0	0,197	0,39

f: frequency, %: percentage

Table 2. Chi-Square Test result indicating the relationship between profession and objective of campus use

			What is your objective for campus use?				
			Education	Accommodation	Residence	Working	Total
Your profession? x ² : 477,659 ^a , p<0,05	Academic Staff	f	2	0	0	4	6
		%	0,395	0	0	0,790	1,18
	Administrative Staff	f	1	0	0	68	69
		%	0,197	0	0	13,438	13,63
	Worker	f	0	1	0	1	2
		%	0	0,197	0	0,197	0,39
	Student	f	417	7	0	5	429
		%	82,411	1,383	0	0,988	84,78

		What is your objective for campus use?					
Your education level? x ² : 405,508 ^a , p<0,05	Primary school graduate	f	0	0	0	2	2
		%	0	0	0	0,395	0,39
	High school graduate	f	2	1	0	14	17
		%	0,395	0,197	0	2,766	3,35
	University student	f	410	6	0	6	422
		%	81,027	1,185	0	1,185	83,39
	University graduate	f	1	0	0	45	46
		%	0,197	0	0	8,893	9,09
	Master's Degree graduate	f	6	1	0	10	17
		%	1,185	0,197	0	1,976	3,35
	Doctorate degree graduate	f	1	0	0	1	2
		%	0,197	0	0	0,197	0,39

f: frequency, %: percentage

Findings on general information related with the study area

Majority of the participants (51,8% - 262 people) indicated that the urban furniture elements inside the campus are well-kept. Regarding whether the urban furniture elements are in accordance with the identity of the campus or not, 57,7% (292 people) of the participants indicated that they consider the urban furniture elements to be in accordance with the campus identity. Campus landscape design (54,2% - 274 people) and the amount of plants used in the campus (66,2% - 335 people) were considered as sufficient by the participants. Of the participants 56,9% (288 people) put forth that the urban furniture elements used are in accordance with the plant design (Table 3).

Table 3. Frequency Analysis results for questions on general information related with the study area

	Yes		No idea/Indecisive		No	
	f	%	f	%	f	%
Are the urban furniture elements used well-kept?	262	51,8	9	1,8	235	46,4
Are the urban furniture elements used in accordance with the campus identity?	292	57,7	9	1,8	205	40,5
Are the urban furniture elements used in accordance with the plant design used?	288	56,9	8	1,6	210	41,5
Is the amount of plants used sufficient?	335	66,2	3	0,6	168	33,2
Is the Farabi campus sufficient with regard to landscape design?	274	54,2	0	0	232	45,8

f: frequency, %: percentage

The quantitative evaluation by the participants of the urban furniture elements inside the campus has been given in Table 4. According to the acquired findings, the participants have put forth that the seating elements, plastic objects, cover elements and water elements are insufficient in number.

Table 4. Frequency Analysis results for the quantitative evaluation of the urban furniture elements inside the campus

Urban Furniture Elements	Sufficient		Insufficient	
	f	%	f	%
High Lighting Elements	328	64,8	178	35,2
Low Lighting Elements	329	65	117	35
Waste Bins	282	55,7	224	44,3
Seating Elements	187	37	319	63
Edging Element s	312	61,7	194	38,3
Signboards	269	53,2	237	46,8
Plastic Objects (Statues, Decorative Elements etc.)	175	34,6	331	65,4
Cover Elements (Shaders, Pergola etc.)	160	31,6	346	68,4
Water Elements	189	37,4	317	62,6

f: frequency, %: percentage

When Chi-Square Test results are used for evaluating whether the urban furniture elements inside the campus are well-kept or not, it was observed that the academic and administrative staff and workers provided positive evaluations, whereas the students provided negative evaluations. While high school, university, master's degree and doctorate degree graduates are of the opinion that the urban furniture elements inside the campus are well-kept, undergraduate students are of the opinion that they are not well-kept (Table 5 and Table 6). It can be observed upon examining the urban furniture elements used in relation with their accordance to campus identity, it was observed that the academic and administrative staff provided a positive evaluation, whereas the workers provided negative and positive evaluations at equal ratios (Table 5).

It was observed when the relationship between education level and the accordance of the urban furniture elements used inside the campus with campus identity was examined that high school graduate students are not of the opinion that the urban furniture elements are in accordance with the campus identity (Table 6). It was observed when the relationship between education level and opinions on whether sufficient number of plants have been used in the campus or not, that doctorate degree graduates are not of the opinion that sufficient number of plants have been used in the campus (Table 6).

Table 5. Chi-Square Test results indicating the relationship between profession and opinions on whether the urban furniture elements inside the campus are well-kept or not as well as their accordance with the campus identity

			Your Profession?				
			Academic Staff	Administrative Staff	Worker	Student	Total
Are the urban furniture elements used in the campus well-kept? x ² : 64,182 ^a , p<0,05	Yes	f	4	48	2	208	262
		%	0,790	9,486	0,395	41,106	51,77
	No idea / Indecisive	f	0	8	0	1	9
		%	0	1,581	0	0,197	1,77
	No	f	2	13	0	220	235
		%	0,395	2,569	0	43,478	46,44
Your Profession?							
Do you think that the urban furniture elements used in the campus are in accordance with the campus identity? x ² : 54,810 ^a , p<0,05	Yes	f	4	48	1	239	292
		%	0,790	9,486	0,197	47,233	57,70
	No idea / Indecisive	f	0	8	0	1	9
		%	0	1,581	0	0,197	1,77
	No	f	2	13	1	189	205
		%	0,395	2,569	0,197	37,351	40,51

f: frequency, %: percentage

Table 6. Chi-Square Test results indicating the relationship between education level and opinions on whether the urban furniture elements used in the campus are well-kept or not, their accordance with campus identity and the sufficiency of the plants used in the campus

			Your Education Level?					
			Primary school graduate	High school graduate	University student	University graduate	Master's degree graduate	Doctorate degree graduate
Are the urban furniture elements used in the campus well-kept? χ^2 : 106,825 ^a , $p < 0,05$	Yes	f	1	7	209	35	8	2
		%	0,197	1,383	41,304	6,916	1,581	0,395
	No idea / Indecisive	f	0	5	0	3	1	0
		%	0	0,988	0	0,592	0,197	0
	No	f	1	5	213	8	8	0
		%	0,197	0,988	42,094	1,581	1,581	0

Your Education Level?									
Do you think that the urban furniture elements used in the campus are in accordance with the campus identity? x²: 79,690 ^a , p<0,05	Yes	f	1	6	237	36	10	2	292
		%	0,197	1,185	46,837	7,114	1,976	0,395	57,70
	No idea / Indecisive	f	0	4	1	4	0	0	9
		%	0	0,790	0,197	0,790	0	0	1,77
		f	1	7	184	6	7	0	205
		%	0,197	1,383	36,363	1,185	1,383	0	40,51
	No								
Your Education Level?									
Do you think that the amount of plants used in the campus is sufficient? x²: 21,425 ^a , p<0,05	Yes	f	2	11	274	35	12	1	335
		%	0,395	2,173	54,150	6,916	2,371	0,197	66,20
	No idea / Indecisive	f	0	1	1	0	1	0	3
		%	0	0,197	0,197	0	0,197	0	0,59
		f	0	5	147	11	4	1	168
		%	0	0,988	29,051	2,173	0,790	0,197	33,20
	No								

f: frequency, %: percentage

According to the results of the same test, while the academic staff indicated that the urban furniture elements used in the campus are not in accordance with the plant design, the administrative staff and students indicated that they are in accordance. It was observed that half of the workers provided positive evaluations whereas the other half provided negative evaluations. While the academic staff indicated that the amount of plants used in the campus is not sufficient, the administrative staff and students indicated that it is sufficient. The workers provided half and half positive and negative responses regarding this issue as well (Table 7).

While those who use the campus for education purposes indicated that the urban furniture elements used in the campus are not well-kept, those who use the campus for accommodation and working purposes indicated that they are well-kept. Those who use the campus for education and work purposes indicated that the urban furniture elements used in the campus are in accordance with the campus identity, half of those who use the campus for accommodation purposes made positive evaluations while the other half made negative evaluations. On the other hand, all users consider that the urban furniture elements used are in accordance with the plant design and that the amount of plants used in the campus is sufficient (Table 8).

Table 7. Chi-Square Test results indicating the relationship between profession and opinions on whether the urban furniture elements used in the campus are in accordance with the plant design or not and the sufficiency of the amount of plants in the campus

Your Profession?							
		Academic Staff	Administrative Staff	Worker	Student	Total	
Do you consider that the urban furniture elements used in the campus are in accordance with the plant design or not? x ² : 44,071 ^a , p<0,05	Yes	f	2	52	1	233	
		%	0,395	10,276	0,197	46,047	56,91
	No idea / Indecisive	f	0	6	0	2	8
		%	0	1,185	0	0,395	1,58
	No	f	4	11	1	194	210
		%	0,790	2,173	0,197	38,339	41,50
Your Profession?							
Are you of the opinion that the	Yes	f	2	51	1	281	335

amount of plants used in the campus is sufficient?		%	0,395	10,079	0,197	55,533	66,20
χ^2 : 13,305 ^a , $p < 0,05$	No idea / Indecisive	f	0	2	0	1	3
		%	0	0,395	0	0,197	0,59
	No	f	4	16	1	147	168
		%	0,790	3,162	0,197	29,051	33,20

f: frequency, %: percentage

Table 8. Chi-Square Test results indicating the relationship between objective of campus use and opinions on whether the urban furniture elements used in the campus are well-kept or not, their accordance with the plant design in the campus, their accordance with the campus identity and the sufficiency of the amount of plants in the campus

			What is the objective of your campus use?				
			Education	Accommodation	Residence	Working	Total
Are the urban furniture elements used in the campus well-kept? x²: 62,353 ^a , p<0,05	Yes	f	204	5	0	53	262
		%	40,316	0,988	0	10,474	51,77
	No idea / Indecisive	f	0	1	0	8	9
		%	0	0,197	0	1,581	1,77
	No	f	216	2	0	17	235
		%	42,687	0,395	0	3,359	46,44
What is the objective of your campus use?							
Do you think that the urban furniture elements used in the campus are in accordance with the campus identity? x²: 48,605 ^a , p<0,05	Yes	f	234	4	0	54	292
		%	46,245	0,790	0	10,671	57,70
	No idea / Indecisive	f	1	0	0	8	9
		%	0,197	0	0	1,581	1,77
	No	f	185	4	0	16	205
		%	36,561	0,790	0	3,162	40,51
What is the objective of your campus use?							
Are you of the opinion that the urban furniture elements used in the campus are in accordance with the plant design? x²: 33,625 ^a , p<0,05	Yes	f	228	5	0	55	288
		%	45,059	0,988	0	10,869	56,91
	No idea / Indecisive	f	2	0	0	6	8
		%	0,395	0	0	1,185	1,58
	No	f	190	3	0	17	210
		%	37,549	0,592	0	3,359	41,50
What is the objective of your campus use?							
Do you think that the amount of plants used in the campus is sufficient? x²: 10,729 ^a , p<0,05	Yes	f	271	7	0	57	335
		%	53,557	1,383	0	11,264	66,20
	No idea / Indecisive	f	1	0	0	2	3
		%	0,197	0	0	0,395	0,59
	No	f	148	1	0	19	168
		%	29,249	0,197	0	3,754	33,20

f: frequency, %: percentage

When it was asked to list the top three options from among the choices, it was observed that the first plant selected by the participants as a plant species that defines the study area was *Platanus orientalis* (Oriental Plane) with a ratio of 39,1% (198 people), followed by *Pinus nigra* (Black Pine) with a ratio of 26,3% (133 people) and *Rosa* sp. (Rose) with a ratio of 21,9% (111 people). When the participants were asked to order the plants according to their opinions on which species should be increased in number, it was observed that shading trees were ranked first with a ratio of 37,7% (191 people), followed by flowered plants with a ratio of 28,5% (144 people) and fragrant plants with a ratio of 21,5% (109 people). The participants indicated with a ratio of 54% (273 people) that benches make up the top urban furniture element that is lacking in number in the campus. Waste bins were ranked number two with a ratio of 21,1% (107 people). Finally water elements were ranked number three with a ratio of 21,3% (108 people). The participants indicated the open-green area activities in the campus in order as resting (18,8% – 95 people), enjoying the scenery (22,5% - 114 people) and sports activities (15,2% – 77 people). The participants indicated strength as the number one characteristic that the urban furniture elements used in the campus should have with a ratio of 36,8% (186 people) followed by aesthetics with a ratio of 21,3% (108 people) and accordance with the environment with a ratio of 25,9% (131 people).

4. Conclusion and Suggestions

It is important that urban furniture elements which complement user comfort are included in the design of new universities to be built after careful evaluations with regard to quality and quantity based on the fact that they will not only serve the students and the staff but also serve as education and activity centers for the citizens as well as the fact that universities are superstructures with qualities determined by the infrastructure that creates them (Gültürk and Şişman, 2016).

Important and statistically significant relationships were determined in relations and preferences between the urban furniture elements and the people who use them with regard to their education levels, professions, objectives for campus use, whether the urban furniture elements are well-kept or not and whether they are used in accordance with the campus identity or not in addition to determining the sufficiency of the campus with regard to landscape design.

Landscape design in the university campus was determined to be sufficient as a result of the general statistical evaluations carried out. It was put forth by the users that the campus is sufficient with regard to the amount of plants and that it is well-kept with regard to the urban furniture elements used. It was also determined that the urban furniture elements are in accordance with the plant design. It was also determined that the users are of the opinion that the urban furniture elements used in the campus are insufficient with regard to quantity. Those who use the study area regularly indicated that the urban furniture elements are not well-kept but that they are in accordance with the campus identity, whereas those who use the campus temporarily indicated that the campus is well-kept and that it fits the campus identity half and half. On the other hand, all users are of the opinion that the urban furniture elements used in the campus are in accordance with the plant design and that the amount of plants in the campus is sufficient. Resting was ranked first among the campus activities which led to the seating units to be evaluated as insufficient. In this regard, broad-leaved shading plants were preferred in larger numbers inside the campus.

It was observed upon examining the evaluations for Bülent Ecevit University Farabi Campus with regard to campus design that quality should be improved especially for cover elements, plastic objects and seating units in addition to giving importance to the strength, aesthetic and accordance with the environment for the urban furniture elements used in resting, enjoying the scenery and sports activities. It is important with regard to user satisfaction that broad-leaved trees and shading plants are used in the plant designs used.

Functionality, aesthetic, accordance with campus identity, strength and portability along with accordance to the standards are among the characteristics that should be given importance. It is important that all professional disciplines work in a coordinated manner at all stages from the design stage of urban furniture elements to landscape design with regard to the relationship between urban furniture elements-user and urban furniture elements-spatial accordance.

References

- **Açıksöz S, Cengiz B, Bekci B, Cengiz C, Cengiz Gökçe G (2014).** Üniversite Yerleşkelerinde Açık ve Yeşil Alan Sisteminin Planlanması ve Yönetimi: Bartın Üniversitesi Kutlubey-Yazıcılar Yerleşkesi. Kastamonu Üniversitesi Orman Fakültesi Dergisi, 14 (2), 222-236.
- **Aksu ÖV, Demirel Ö, Bektaş, N (2011).** Trabzon Kenti İlköğretim Okul Bahçelerinde Donatı Elemanları Üzerine Bir Araştırma. İnönü Üniversitesi Sanat ve Tasarım Dergisi, 1 (3), 243-254.
- **Aydın D, Ter U (2008).** Outdoor Space Quality: Case Study of a Campus Plaza. International Journal of Architectural Research, 2 (3), 189-203.
- **Bayraktar N, Tekel A, Yalçın Ercoşkun Ö (2008).** Ankara Atatürk Bulvarı Üzerinde Yer Alan Kentsel Donatı Elemanlarının Sınıflandırılması, Değerlendirilmesi ve Kent Kimliği İlişkisi. Gazi Üniversitesi Mühendislik ve Mimarlık Fakültesi Dergisi, 23 (1), 105-118.
- **Bulut Y, Atabeyoğlu Ö, Yeşil P (2008).** Erzurum Kent Merkezi Donatı Elemanlarının Ergonomik Özelliklerinin Değerlendirilmesi Üzerine Bir Araştırma. Ankara Üniversitesi Ziraat Fakültesi Tarım Bilimleri Dergisi, 14 (2), 131-138.
- **Cengiz B, Karaelmas D, Karayılmazlar S, Güler KE (2018).** MYO Öğrencilerinin Rekreasyonel Eğilim ve Taleplerinin Belirlenmesi: Bülent Ecevit Üniversitesi Çaycuma Yerleşkesi Örneği. Journal of Bartın Faculty of Forestry, 20 (2), 163-175.
- **Cengiz C, Cengiz B, Bekci B (2012).** Environmental Quality Analysis For Sustainable Urban Public Green Spaces Management in Bartın, Turkey. Journal of Food, Agriculture & Environment 10 (3&4), 938-946.
- **Cengiz C, Keçecioğlu Dağlı P. (2017).** Bartın Geleneksel Kent Dokusunda Yaya Konfor Düzeyinin Saptanmasına Yönelik Bir Çalışma. Journal of Bartın Faculty of Forestry, 19 (1), 19-31.
- **Çelikyay S, Karayılmazlar S (2016).** Bartın Kent Merkezindeki Kamusal Alanların Kentsel Ergonomi ve Kent Kimliği Açısından İncelenmesi. Journal of Bartın Faculty of Forestry. 18 (2), 224-238.
- **Düzenli T, Yılmaz S, Özkan DG (2017).** Peyzaj Mimarlığı Eğitiminde Donatı-Mekan İlişkisinin Kurgulanması. Uluslararası Sosyal Araştırmalar Dergisi, 10 (48), 478-485.
- **Erdem N (1995).** Kentsel Donatı Elemanları. İstanbul Üniversitesi Orman Fakültesi Dergisi, 45(1-2), 127-133.
- **Gültürk P, Şişman EE (2016).** Tekirdağ Kent Merkezi Dış Mekân Tasarım Elemanlarının Antropometrik Açısından İrdelenmesi. İnönü Üniversitesi Sanat ve Tasarım Dergisi, 6 (14), 1-12.
- **Güremen L (2011).** Kent Kimliği ve Kent Estetiği Yönüyle Kentsel Donatı Elemanlarının Amasya Kenti Özelinde Araştırılması. E-Journal of New World Sciences Academy. 6 (2), 254-291.
- **Kurdoğlu BÇ, Özdemir Işık B, Bayramoğlu E (2013).** Doğal-Yapay Peyzaj Materyalleri ve Kullanıcı İlişkisi: KTÜ Kanuni Yerleşkesi Örneği. Kastamonu Üniversitesi Orman Fakültesi Dergisi, 13 (1), 164-174.
- **Nayim BN, Cengiz B, Sarı Y, Kapuci C (2003)** Street Furniture in Historical Identity of the City of Bartın.II. International Symposium & Exhibition on Street Furniture. 24-27 April, İstanbul.
- **Olgun R, Erdoğan R (2016).** Urban Furniture and User Satisfaction: The Example Of Antalya - Gulluk Avenue. Journal of the Faculty of Forestry Istanbul University, 66 (2), 674-682.
- **Özer S, Aklbaşında M, Zengin M (2010).** Erzurum Kenti Örneğinde Kullanılan Kuşatma Elemanlarının Kent İmajı Üzerindeki Etkileri. Tekirdağ Ziraat Fakültesi Dergisi, 7 (2), 123-130.
- **Perçin MH (no date).** Peyzaj Konstrüksiyonu 2 Ders Notları. Ankara Üniversitesi, Ziraat Fakültesi, Peyzaj Mimarlığı Bölümü, 7s.
- **Sağlık E, Sağlık A, Kelkit A (2014).** Tekerlekli Sandalye Kullanıcıları İçin Dış Mekan Kullanım Olanakları: Çanakkale Kent Merkezi Örneği. 1. Uluslararası Kentsel Planlama-Mimarlık-Tasarım Kongresi, 8-11 Mayıs, Kocaeli, Türkiye, Bildiriler Kitabı, 1037-1051.
- **Şişman E E, Yetim L (2004).** Tekirdağ Kentinde Donatı Elemanlarının Peyzaj Mimarlığı Açısından İrdelenmesi. Trakya Üniversitesi Fen Bilimleri Dergisi, 5(1), 43-51.
- **Taylor N (1999).** The Elements of Townscape and The Art of Urban Design. Journal of Urban Design, 2 (4), 195-209.
- **URL-1.** <http://w3.beun.edu.tr/hakkimizda/tarihce.html> (A.D. 20.04.2018).
- **URL-2.** <http://aday.beun.edu.tr/icerik/57/kampuslerimiz> (A.D. 20.04.2018).
- **Yazıcı AB (2007).** Bir Sosyal Çevre Olarak Yerleşke Kimliği Oluşmasında Donatı Elemanlarının Önemi: Başkent Üniversitesi Bağlıca Yerleşkesi Üzerine Alan Araştırması. Ankara Üniversitesi, Sosyal Bilimler Enstitüsü, Sosyal Çevre Bilimleri Anabilim Dalı, Doktora Tezi, Ankara, 225 s.
- **Yıldırım C (2011).** Antalya Kenti İçindeki Parklarda Yer Alan Donatı Elemanlarının Estetik ve Fonksiyon Açısından Değerlendirilmesi. Akdeniz Üniversitesi, Fen Bilimleri Enstitüsü, Peyzaj Mimarlığı Anabilim Dalı, Yüksek Lisans Tezi. Antalya, 144s.