INVESTIGATION OF THE EFFECT OF STREET FURNITURE PLACED AT THE UNIVERSITY CAMPUSES ON QUALITY OF LIFE, SUSTAINABILITY-ECOLOGY AND IDENTITY¹

ÜNİVERSİTE YERLEŞKELERİNDEKİ KENTSEL DONATI ELEMANLA- RININ YAŞAM KALİTESİNE, SÜRDÜRÜLEBİLİRLİK-EKOLOJİYE VE KİMLİĞE ETKİLERİNİN ARAŞTIRILMASI

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Öz: Kültürel ve sosyal etkinliklerin yer adlı mekânlarda kullanıcıların hem gereksinimlerini karşılayan hem de sorunlarını çözmeyi sağlayan kentsel donatı elemanlarının yaşam kalitesini artırma, sürdürülebilir olma, çevreyle uyumlu olma ve kente kimlik katma gibi nitelikleri bulunmaktadır. Bu çalışmada Karadeniz Teknik Üniversitesi (KTÜ) Kanuni Yerleşkesi sınırları içinde bulunan kentsel donatı elemanlarının yaşam kalitesine ve kampüs kimliğine katkısı ile ne kadar sürdürülebilir-ekolojik olabildiklerinin tespitine yönelik yerleşke kullanıcıları ile bir anket çalışması gerçekleştirilmiştir. Bu anket çalışmasına üniversite-deki akademisyen ve öğrencilerden oluşan 60 kişilik bir grup katılmıştır. Bu uygulama sonucu elde edilen veriler üzerinde istatistik analizler yapılmıştır. Analizler neticesinde kentsel donatı elemanlarının KTÜ içinde kimlik ve sürdürülebilirlik-ekolojik açıdan katkılarının zayıf, yaşam kalitesine ise orta derecede katkıları olduğu yönünde bulgular elde edilmiştir. Bu bulgular paralelinde sorunlar ortaya konulmuş ve çözüme yönelik öneriler getirilmiştir.

Anahtar Kelimeler: Kentsel Donatı Elemanları, Yaşam Kalitesi, Sürdürülebilirlik, Ekoloji, Kimlik

Abstract: Street furniture, which meet the needs of users as well as helping them solve their problems in areas where social and cultural activities are conducted, have such characteristics as increasing the quality of life, being sustainable, being in harmony with the surrounding environment and contributing to the identity of the cities. In the current study, a survey study was done with the users in order to identify the contribution of the urban street furniture located within Karadeniz Technical University (KTU) – Kanuni Campus to quality of life and campus identity and how sustainable-ecologic they really are. A group of 60 individuals that is made up of academicians, personnel and students of the university participated in the study. Statistical analyses were performed on the data gathered throughout the study. KTU Campus area has poor contribution to identity and sustainability-ecological traits and average contribution to quality of life.

Key Words: Street Furniture, Quality of Life, Sustainability, Ecology, Identity

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1. INTRODUCTION

After the foundation and flourishing of the first settlements, the first elements of urban street furniture started to gain their shapes. The first elements of such street furniture were the street lamps and benches that were seen in the cities following the Industrial Revolution. Increasing speed of urbanization over time made the urban areas more and more important and caused ever-intensive usage of urban spaces. Intensive usage of such spaces resulted in creation of new service elements (Kaya, 2001).

Even though they were used merely out of need, the elements of street furniture, which try to meet the needs and solve the problems of their users, have turned into indispensable objects of the spaces where cultural and social activities are conducted, as well as taking over certain functions (Sakal, 2007).

In the modern cities, elements of urban street furniture enliven the whole city or particular areas of the cities, and contribute to their characters and identities. They create a bond with the environment surrounding them and a mutual language between one another. Elements of urban street furniture, which make the cities more liveable and perceivable, establish a visual and physical connection between urban spaces and user; urban spaces, on the other hand, meet the social, cultural, physical and psychological needs of users and give them vigour and spirits to live by establishing peace

and comfort (Yücel, 2006: 26-29) (Bayraktar et al., 2008: 105-118).

Urban street furniture, fixed or mobile, which are meant to meet the physical and psychological needs of their users, are made up of human made elements fitted in such spaces like avenues and pedestrian areas. Lighting elements, signboards and information boards, sitting elements, roofing elements, advertising signboards and billboards, water elements, public transportation stops and flower beds are all covered by the notion of urban street furniture (Erdem, 1997: 45).

Fixed and mobile urban street furniture that occupy an important place in the urban design have certain characteristics like increasing the quality of life, being sustainable, being in harmony with the nature and contributing to the identity of the city (Çelik, 2015).

1.1. Quality of Life

Quality of life is defined as the connection between the perceptions and emotions of users and their experiences about the spaces they live in. Quality of life plays a significant role in development of the city and provides people living in the city with a respectable life (Şenlier et al., 2013: 35-43).

On the other hand, causes like increasing urban population, unplanned urbanization, irresponsible utilization of natural resources, and disturbance of social balance among people pressurize the

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life itself, thus decreasing the quality of life (Bimtaş, 2003).

In order to increase the quality of life in the cities, we make use of elements of urban street furniture. In the selection of urban street furniture to be used, evaluations, preferences and demands of users should be taken into account, and elements of urban street furniture should be designed in a functional, ergonomic, perceivable, safe, durable and aesthetic manner (Sakal, 2007).

1.2. Sustainability-Ecology

Sustainability is a notion that is used to supply our current needs by consuming resources in a way that will not hinder their capability to meet future demands (Ekşioğlu Çetintahra, 2013:53-62).

It is defined as the ability of a society to secure the uninterrupted functionality of an ecosystem or any permanent system without damaging it or draining the essential resources of the given system through overusing or excessive exploitation of them (Bimtaş, 2003) (Sakal, 2007).

It becomes possible to preserve the natural resources by using recyclable materials in urban street furniture, through which the carbon footprint is also reduced. In this way, both the damage caused on the environment is reduced and materials can be re-gained when elements of urban street furniture need to be renewed (Yücel, 2013: 623-644).

Ecological approach is the initiative that aims at establishing habitable and healthy life zones. Taking into consideration the environmental sensitivity in planning urban spaces, extra emphasis should be placed on such methods and implementations that will support efficiency, productivity, protection and reusability (Karadağ, 2009: 31-47).

In this respect, the elements of urban street furniture should meet the cultural, physical and psychological needs of their users, contributing to the character and the identity of the city, and they should be sensitive to and in harmony with the natural environment surrounding them, and the materials used in them should be recyclable (Çelik, 2015).

1.3. Identity

The concept of identity enables the comparison between similar qualities and depicts the different characteristics of a given place (Ulu and Karakoç, 2004: 59-66). Urban identity, on the other hand, gives form to the city in a combination of the geography of the city, its cultural level, architectural structure, life styles and other qualities. The experiences, opinions, beliefs and behaviours that societies have accumulated over centuries constitute the sociocultural structure of any community, and this structure plays a key role in the formation of the urban identity (Önem and Kılıçarslan, 2005: 115-125).

Thanks to their limiting and highlighting qualities, urban street furniture contribute to the wealth and

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identity of the urban spaces, and they differentiate and define the spaces within the cities (Taylor, 1999: 195-209) (Pakdil et al., 2001: 153-161) (Bayraktar et al., 2008: 105-118). So that urban street furniture do not to cause a complex perception to the users and avoid visual disturbance, they should be both harmonious with one another and suitable with the functional characteristics of the spaces they are placed in (Süel Yazıcı, 2007).

The main objective of the current study is to determine the effects of the elements of urban settings located within Karadeniz Technical University Kanuni Campus (lighting elements, signboards and information boards, sitting elements, artistic objects, water elements, roofing elements, rubbish bins, advertising signboards and billboards, flower beds and public transportation stops) on the quality of life of their users, their contribution to the identity of the campus, and whether they are sustainable-ecologic. As a result of the research study conducted, the effects of the urban street furniture located within the campus area were revealed and further suggestions were made.

1. MATERIAL and METHOD

1.1. Area of Study

The scope of the study covers an area of 89.875 m² on Karadeniz Technical University Kanuni Campus located in Ortahisar District of Trabzon Metropolitan Municipality (Figure 1). Due to the fact that it is located outside the campus area and the landscape works have yet to be completed,

Faculty of Medicine and its surroundings, to avoid the accident risks around the new building of the Higher School of Foreign Languages as it is currently under construction, and because of security concerns, the residence of the Rector and its surroundings were not included in the scope of the research study. The elements of urban settings (lighting elements, signboards and information boards, sitting elements, public arts, water elements, canopy structures, rubbish bins, advertising signboards and billboards, planters and public transportation stops) placed in and around all the buildings and social spaces comprise the main material of the current study.

Figure 1. Borders of the Area of the Study
(Çelik, 2015)

1.2. Method

A survey study was conducted regarding the elements of urban street furniture placed within the borders of the study area in order to investigate the effect of the urban settings on the quality of life of their users, their contribution to the identity of the campus, and whether they are sustainable-ecologic. Urban street furniture were

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divided into 10 sub-classes in the questionnaire (Figure 2). For the purpose of the questionnaire study, elements of urban street furniture were compiled into a presentation file. Academicians and students that received the presentation file filled in a questionnaire response form and answered relevant questions. The questionnaire form responded by 60 participants is made up of two sections (Figure 3). The terms of “Quality of Life, Sustainable-Ecological and Identity”, which are mentioned in the questions asked in the second section, are explained in the first section of the questionnaire. In the second section, the effects of each item of street furniture selected from the campus area on the mentioned three criteria were scored on a 5-point Likert scale (None, Little, Average, Good and Plenty). Statistical analyses were performed on data gathered through the questionnaire. Furthermore, the relationship between the “quality of life”, “sustainability-ecological” and “identity” criteria were tested by correlation analysis for street furniture placed at the university campus.

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Figure 2. The Elements of Street Furniture Selected for the Questionnaire Study

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The Questionnaire on Evaluation of Urban Street Furniture on KTU Kanuni Campus

This questionnaire is being implemented for the sake of a scientific research study conducted in the Institute of Science, Department of Landscape Engineering.

Quality of Life: Causes like population growth and unplanned urbanization, irresponsible utilization of natural resources, and disturbance of social balance among people make life more difficult and decrease the quality of life. In order to increase the quality of life, elements of urban street furniture should be selected among functional, ergonomic, perceivable, safe, durable and aesthetical ones.

Sustainable – Ecological: In order to increase the quality of life of the urban people, the damage caused by the rapid growth of the city, overconsumption and excessive use of essential resources must be prevented while establishing habitable and healthy life zones in the city. To be able to achieve this, urban street furniture should be designed and utilized using recyclable materials that are sensitive to and suitable with the environment they are placed in.

Identity: Apart from being sustainable-ecologic and supporting quality of life, urban street furniture should have limiting and highlighting qualities to gain the city a visual wealth and unique identity, and they should define the spaces they are placed in by discriminating the city and its distinct spaces.

PH		1	2	3	4	5	
Lighting Elements							
PH 1	Q L ; None						Q L ; Plenty

PH 2	S E ; None						S E ; Plenty
PH3	I D ; None						I D ; Plenty
Signboards and Information Boards							
PH 1	Q L ; None						Q L ; Plenty
(similarly continues ...)							

PH: Photo

QL: Quality of Life

SE: Sustainability-Ecological

ID: Identity

Figure 3. The Questionnaire Example on Evaluation of Urban Street furniture on Karadeniz Technical University Kanuni Campus

2. FINDINGS

3.1. Findings Acquired Though The Questionnaires

60 individuals participated in the survey study where we investigated the effects of the elements of urban street furniture located in the campus area on “quality of life”, the effect on the criteria of being “sustainable-ecologic” and their effect on the “identity” of the campus. 38.33% of the participants were made up of 2nd year students, while 28.33% were 3rd year students, 25% were 4th year students and 8.33% were academicians.

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3.2. Findings Related to Lighting Elements

As presented in Figure 4, it was found out that all the lighting elements had a negative effect by 53.89% on the quality of life (26.67% none, 27.22% little), a negative effect by 71.67% on the criteria of sustainable-ecological (46.67% none, 25% little), and a negative effect by 75% on the campus identity (56.11% none, 18.89% little).

3.3. Findings Related to Signboards and Information Boards

As presented in Figure 5, it was found out that all the signboards and information boards had a approximate positive effect by 60.56% on the quality of life (26.67% average, 33.89% good), a negative effect by 57.67% on the criteria of sustainable-ecological (31.67% none, 25% little), and a negative effect by 52.78% on the campus identity (36.67% none, 16.11% little).

3.4. Findings Related to Sitting Elements

As presented in Figure 6, it was found out that all the sitting elements had an approximate positive effect by 57.22% on the quality of life (23.33% average, 33.89% good), an average level effect by 75% on the criteria of sustainable-ecological (26.11% little, 23.33% average, 25.56% good), and a negative effect by 64.45% on the campus identity (38.89% none, 25.56% little).

3.5. Findings Related to Public Arts

As presented in Figure 7, it was found out that all the public arts had an approximate negative effect by 46.11% on the quality of life (25% little, 21.11% average), a negative effect by 51.12% on the criteria of sustainable-ecological (22.79% none, 28.33% little), and a positive effect by 68.33% on the campus identity (22.77% good, 45.56% plenty).

3.6. Findings Related to Water Elements

As presented in Figure 8, it was found out that all the water elements had an approximate positive effect by 56.67% on the quality of life (33.89% average, 22.78% good), an approximate positive effect by 55.56% on the criteria of sustainable-ecological (31.11% average, 24.45% good), and a positive effect by 45.01% on the campus identity (17.79% good, 27.22% plenty).

3.7. Findings Related to Canopy Structures

As presented in Figure 9, it was found out that all the canopy structures had a negative effect by 51.11% on the quality of life (31.11% none, 20% little), a negative effect by 61.58% on the criteria of sustainable-ecological (42.11% none, 19.47% little), and a negative effect by 71.67% on the campus identity (50% none, 21.67% little).

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Figure 4. Percentages of the Scores Attributed to all Rubbish Bins in Terms of Quality of Life, Sustainability-Ecological and Identity criteria

As presented in Figure 10, it was found out that all the rubbish bins had a negative effect by 54.44% on the quality of life (25.55% none, 28.89% little), a negative effect by 72.78% on the criteria of sustainable-ecological (51.11% none, 21.67% little), and a negative effect by 78.77% on the campus identity (67.04% none, 11.73% little).

3.8. Findings Related to Advertising Boards and Billboards

As presented in Figure 11, it was found out that all the advertising boards and billboards had a negative effect by 63.33% on the quality of life (33.89% none, 29.44% little), a negative effect by 76.67% on the criteria of sustainable-ecological (52.22% none, 24.45% little), and a negative effect by 75.56% on the campus identity (60% none, 15.56% little).

Figure 5. Percentages of the Scores Attributed to all Planters of Quality of Life, Sustainability-Ecological and Identity Criteria

As presented in Figure 12, it was found out that all the planters had an approximate negative effect by 51.66% on the quality of life (28.33% little, 23.33% average), a negative effect by 57.22% on the criteria of sustainable-ecological (30% none, 27.22% little), and a negative effect by 65.56% on the campus identity (50.56% none, 15% little).

3.9. Findings Related to Public Transportation Stops

As presented in Figure 13, it was found out that all the public transportation stops had an approximate negative effect by 58.33% on the quality of life (23.33% little, 35% average), a negative effect by 61.67% on the criteria of sustainable-ecological (27.5% none, 34.17% little), and a negative effect by 55% on the campus identity (37.5% none, 17.5% little).

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Table 1. Correlation Analysis of All Street Furniture Placed University Campus

		QL	SE	ID
Spearman's rho	QL	Correlation Coefficient	1,000	,509**
		Sig. (2-tailed)	.	,000
		N	1740	1740
	SE	Correlation Coefficient	,509**	1,000
		Sig. (2-tailed)	,000	.
		N	1740	1740
	ID	Correlation Coefficient	,391**	,495**
		Sig. (2-tailed)	,000	,000
		N	1740	1740

** . Correlation is significant at the 0.01 level

(2-tailed).

QL: Quality of Life

SE: Sustainability-Ecological

ID: Identity

When the relationship of the contributions to be identity, quality of life and sustainability-ecological of all street furniture placed the university campus was tested by correlation analysis, it was observed that these criteria are in significant positive correlation with each other. This case was supported by emerged to be related to each other of these three factors we discussed as ideal street furniture criteria. Table 1 shows the relationship of the Spearman correlation coefficients and significance levels.

3. DISCUSSION and CONCLUSIONS

University campuses, where educational and scientific works are performed, are in the form of an organized city in the micro scale with their personnel and students, and they host numerous urban street furniture that address to the needs and problems of their residents. Designing the urban street furniture, which have the quality of being a means of communication and utilization object, in harmony with one another and the functions of the spaces they are placed, and individuating them contribute to the identity of the campus, increase the quality of life of their

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users by duly meeting their needs, and attain the goal of maintaining sustainability and ecological criteria thanks to using recyclable materials and making them more suitable for the environment (Çelik, 2015). Taking into account the humanitarian and environmental values and ruling out the economic interests will result in maintaining sustainable-ecological campuses as well as gaining them identity (Aklanoğlu 2009), and planning the urban settings in an easily accessible manner will positively affect the quality of life (Türkoğlu and Bölen, 2013:3-11). The findings acquired from values that urban street furniture added to the quality of life, sustainability-ecology and identity were further evaluated and analyzed in the light of the findings mentioned by Bimtaş (2003), Önem and Kılınçaslan (2005), Sakal (2007), Süel Yazıcı (2007), Bayraktar et al. (2008) and Yücel (2013).

Through the analyses performed, it was revealed that canopy structures and billboards had no effect on the quality of life, while lighting elements had little effect, public arts and planters had –similarly-little-average effect, water elements and bus stops had an average effect, information and signboards, sitting elements and rubbish bins had relatively higher effects.

In terms of sustainability-ecology, it was found out that lighting elements, signboards and information boards, public arts, canopy structures, rubbish bins, bus stops, billboards and planters had negative impacts; yet, water elements had

average and sitting elements had higher effects on the positive side.

It is observed that lighting elements, sitting elements, canopy structures, rubbish bins, bus stops and planters had no effect while water elements and public arts had positive effects in terms of contribution to the identity.

In conclusion, it was understood that, in the general sense, elements of urban street furniture placed in the campus area were unable to increase the quality life of the students, academicians and other personnel living on the campus; they were selected and placed without taking into account sustainability-ecology based criteria; urban street furniture here were ordinary urban furniture with the exception of water elements and public arts, thus failing to contribute to the identity of the campus.

Elements of urban street furniture used in the campus should bear the characteristics to contribute to the identity of the campus, to facilitate the quality of lives of their users, and to meet sustainability-ecology criteria, and the items to be selected should be the outcome of an original design that will primarily aim at meeting the demands and needs of the individuals living in the campus area and the characteristics of the space they are supposed to be placed in.

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REFERENCES

AKLANOĞLU, F., (2009). Geleneksel Yerleşmelerin Sürdürülebilirliği ve Ekolojik Tasarım: Konya-Sille Örneği, Ankara University, Institute of Science, Department of Landscape Engineering, Doctoral Thesis, Ankara

BAYRAKTAR, N., TEKEL, A., and YALÇINER ERÇOŞKUN, Ö., (2008). Ankara Atatürk Bulvarı Üzerinde Yer Alan Kentsel Donatı Elemanlarının Sınıflandırılması, Değerlendirilmesi ve Kent Kimliği İlişkisi. Journal of Gazi University Faculty of Engineering and Architecture, Ankara, 23, 1, 105-118

BİMTAŞ. (2003). İstanbul Metropolen Alan Bütünü Nüfus Donatı Dağılımının İncelenmesi ve Öneri Donatılara İlişkin Analitik Etütler İş, İstanbul Metropolitan Municipality Planning and Zoning Department, Directorate of Urban Planning, İstanbul

ÇELİK, K. T., (2015). CBS Tabanlı Bir Yerleşke Donatı Bilgi Sisteminin (YEDBİS) Oluşturulması: Karadeniz Teknik Üniversitesi Kanuni Yerleşkesi Örneği, Master's Thesis, Karadeniz Technical University, Institute of Science, Department of Landscape Engineering, Trabzon

EKŞİOĞLU ÇETINTAHRA, G., (2013). Yapı Adası Tasarımının Yaşam Kalitesine Etkileri: İzmir Güzelyalı Mahallesinde Bir Araştırma, TMMOB Chamber of Architectures Bursa

Branch, 25th International Construction and Life Convention, March, 53-62

KARADAĞ, A., (2009). Kentsel Ekoloji : Kentsel Çevre Analizlerinde Coğrafi Yaklaşım, Ege Coğrafya Journal, İzmir, 18, 1-2, 31-47

KAYA, E., (2001). A Study on Street Furniture Design Criteria for Bus Stops, A Dissertation Submitted to the Graduate School in Partial Fulfillment of the Requirements for the Degree of Master of Industrial Design. İzmir Institute of Technology. İzmir, Turkey

ÖNEM, A. B., and KILINÇASLAN, İ., (2005). Haliç Bölgesinde Çevre Algılama ve Kentsel Kimlik, İstanbul Technical University Journal, İstanbul, 4, 1, 115-125

PAKDIL, A., FATİH, M., and MANISA, K., (2001). “Uygar Kentli İhtiyaçları ve Kent Mobilyaları”, 1st International Urban Furniture Symposium, İstanbul Metropolitan Municipality, İstanbul, Bildiriler Kitabı. 153-161

SAKAL, A. N., (2007). Ankara’da Kentsel Donatıların Peyzaj Planlama ve Tasarımı Açısından Analizi ve Değerlendirilmesi, Master's Thesis, Ankara University, Institute of Science, Ankara

SÜEL YAZICI, A. B., (2007). Bir Sosyal Çevre Olarak Yerleşke Kimliği Oluşmasında Donatı Elemanlarının Önemi: Başkent Üniversitesi Bağlıca Yerleşkesi Üzerine Alan Çalışması,

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Doctoral Thesis, Ankara University, Institute of Social Sciences, Ankara

ŞENLİER, N., YILDIZ, R., and SALİHOĞLU,

T. (2013). Farklı Konut Yerleşim Dokularında Yaşanabilirlik, TMMOB Chamber of Architectures Bursa Branch, 25th International Construction and Life Convention, March, 35-43

TAYLOR, N., (1999). “The Elements of Townscape and the Art of Urban Design”, Journal of Urban Design, 4, 2, 195-209

TÜRKOĞLU H., and BÖLEN F., (2013). Bursa’da Kentsel Yaşam Kalitesinin Ölçül-

mesi, Yaşanabilir Kentler, 25th International Construction and Life Fair and Convention, Bildiri Kitabı, 27-31 March, Bursa, 3-11

ULU, A., and KARAKOÇ, İ., (2004). Kentsel Değişimin Kent Kimliğine Etkisi, Planlama 2004/3, 59-66

YÜCEL, G. F., (2006). Kamusal Açık Mekânlarda Donatı Elemanlarının Kullanımı, Ege Mimarlık, 4, 26-29

YÜCEL, G. F., (2013). Advances in Landscape Architecture, Street Furniture and Amenities: Designing the User-Oriented Urban Landscape, 623-644