Assessment of Trabzon Coastal Utilization Based on Physical and Social Dimensions

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Abstract

The coastal civilizations have led to the establishment of urban foundations in time. Today, the value of air, water and land is indisputable for life and it is necessary to recognize significant opportunities offered by coastal areas that stand out with their ecological riches. Therefore, landscape architects have important responsibilities in solution of coastal problems shared by everyone and every institution. Today, similar to several cities in the world, the city of Trabzon experiences population growth and the urban coastline is becoming increasingly crowded due to the opportunities it provides. The coasts attract all people like magnets, and individuals experience the coasts with all their senses; visual, auditory, tactile, taste, smell and speech. The aim of the present study was to investigate the coastal occupation in Trabzon province based on physical and social dimensions and to determine the user profile, occupancy and coastal activities. Knowledge on the occupancy and activities conducted in these areas is of paramount importance for the planning and design of future coastal areas that would include successful and qualified facilities. The findings would provide resources for future coastal designs that would include planning and design criteria which would enforce the relationship between the urban areas and the coastline.

Keyword: Coastal Use, User Behavior, Site Qualities, Socialization, Trabzon.

1. INTRODUCTION

The literature on human habitats reported that the first human settlements were the coastlines in history. Because, water is an important resource for human activities such as transportation, industry, trade, energy, sports, entertainment and recreation. Today, the presence of natural water resources such as seas, streams, lakes and rivers is very important especially in urban areas which are crowded as a result of the increase in population density. In the past, these resources were mostly utilized for commercial activities, however they are planned and designed to meet public needs as public spaces.

In other words, throughout the history of humankind, the phenomenon of water, which first acquired meaning and value as a source of life, has been an indispensable part of human life based on different developmental levels, different requirements in different periods throughout the evolution of settlements (Oktay, Erdoğan and Oktay, 2015). Because, along with urbanization, the presence of these resources is important for coastal organizations that include activities such as taking the air, eating, leisure, chatting, weekend activities, and walking and sports activities (Henden Şolt, 2018). These activities could also be considered as activities which do not have direct relation with water. Because, it can be stated that the urban population that grows with migration and is in constant change socially, culturally and economically, leads to a change in coastal culture (Dikçınar Sel, 2018).

It is among the duties of local governments to build habitable and public open spaces for the population in coastal areas (Henden Şolt, 2018). However, in this process, the coastal areas, which are of utmost importance for cities and urban dwellers, should be addressed with a holistic planning approach. In order to transfer the coastal areas to future generations, the balance between preservation and utilization should be considered in the decisions taken based on this approach. The coastal areas should be assessed on design and implementation scales in accordance with the plan decisions. In the present study, physical and social aspects of coastline occupation in urban areas were analyzed in the design scale.

Coastline use in urban areas have changed over time parallel to the needs of the period and the resulting changes in occupant requirements. The city has been an important factor in these changes. It is necessary to address the city not only with its visible spatial aspects, but also with the economic, social, cultural and political structures that underlie these spaces and the interrelated complex relations and interactions between them. Thus, as Keser (2006) stated, the construction of physical space is the result of the complex interactions between these structures. However, it is also necessary to understand that there is a semantic context besides the functionality of the city. Because, spaces attract individuals not only visually or in terms of the functions they offer, but also in terms of the meanings they possess (Oktay, Erdoğan and Oktay, 2015). Three elements are important in the construction of the cities. These are the natural structure, physical structure and social structure of the city. These three elements interact with each other to form the urban system. The presence or absence of a water element in the natural urban structure, that is, whether it is a coastal city or not, is a condition that affects the function and image of the whole city (Akköse, 2007). Furthermore, the variable relationship between water and land has been an effective factor in determination of the urban character and form (Oktay, Erdoğan and Oktay, 2015). Thus, the seas, which are among the

natural water resources, indicate the first element that form the city; the natural urban structure. However, unplanned interventions on the coasts lead to gradual changes and deterioration in this natural structure.

The second and third elements, namely physical and social factors, are closely interrelated. Because, the physical environment acquires a meaning only with the presence of a social structure that keeps this space alive. The built and open areas that constitute the physical environment are shaped based on the social structure of the inhabitants of that space (Öztekin, 2010). Based on that premise, the physical structure of Trabzon coastal areas, which are among the natural urban elements, and the associated social uses were analyzed in the present study. Social use was considered not as social structure of the occupants, but the opportunities offered by the space for socialization.

The coastal areas offer various physical, social and psychological opportunities to occupants (Oktay, Erdoğan and Oktay, 2015; Aybay, 2006).

On the physical perspective,

- The topographical diversity in coastal areas provides different physical planning and design opportunities.

On the social and psychological perspectives,

- The climate softening effect of the water in the coastal areas and the micro-climates it creates have a positive effect on individuals.
- Coastal areas and especially moving water and water sounds directly leads to relaxation, entertainment, refreshment of individuals based on functionality, aesthetics and perceptions.
- The coastal areas provide a clearly perceived "openness" against the "closedness" of crowded cities due to dense built environment, leading to psychological relaxation.

Today, the coastline is altered by land reclamations due to increasing urban transportation, construction and tourism demands. This case was particularly promoted by the Tourism Incentives Law No. 2634 issued in 1982, and the Amnesty Law No. 2805 issued in 1983 (Kurt, Demirci and Karaburun, 2007). Reclaimed land increase the benefits of the coastline for the individuals, while unfortunately damaging the flora and fauna in these spaces and disrupt the natural view and structure of the coasts. Therefore, land reclamation work should be conducted in a planned manner. In the city of Trabzon, where the present study was conducted, the coastline at Hagia Sophia-Beşirli region is reclaimed land. It was built during the construction of the Black Sea coastal road. The then existing coastal road became an inner road and a new and wider coastal road was constructed on the coastline. The current coastline is between the new road and the sea.

2. MATERIAL, METHODOLOGY AND FINDINGS

2.1 Study Area

The study was conducted at the frequently used coast park located in Trabzon-Ortahisar district. Approximately 8 km long coastal area remained as a disconnected section after the construction of the Black Sea coastal road. Trabzon is an important port city in the Eastern Black Sea Region in Turkey and located between the 38° 30′ – 40° 30′ east meridians and 40° 30′ – 41° 30′ north parallels. It has a surface area of 4,685 km². Most of this land is mountainous, and surrounded by Rize province on the east, Giresun province on the west, and Gümüşhane and Bayburt provinces on the south. The Black Sea lies to the north of Trabzon province (Figure 1). According to the 2018 Trabzon Metropolitan Municipality data, the central district population was 317,520 and the total provincial population was 763,714. The active green area surface in Trabzon is 867.673 m² and the passive green area surface is 1.437.960 m² (Yavuz et al., 2013). The study was conducted on the coastline between Hagia Sophia and Beşirli in Trabzon urban center. Images from different vista in the study area are presented in Figure 2.

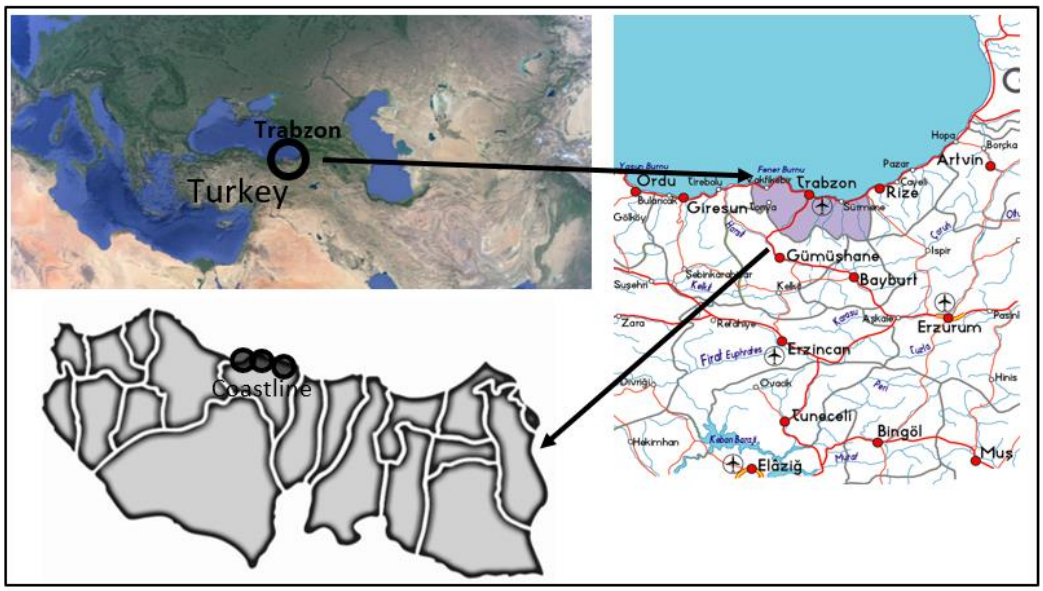

Figure 1. The geographical location of Trabzon and the study area.

Figure 2. The study area visuals.

2.2 Participants

In the study, one-to-one interviews were conducted with randomly selected occupants of the coastline and a survey was conducted with those who agreed to support the study. Thus, a total of 100 individuals were surveyed. The method used in the study was the measurement of the satisfaction

level of the occupants with the physical and social dimensions of Trabzon coast park. The survey form included statements to determine participant demographics and to assess the quality of life perceptions on physical and social determinants of coastal parks. The survey form included a total of 35 statements. Participants were asked to read and assess each statement. For each statement, a score of 1 indicated the lowest value and 7 indicated the highest value. The interview was completed in about 20 minutes with each participant. The study was conducted in April 2019.

The study data demonstrated that 58% of the participants were female and 42% were male and 49% were 21-25 years old young adults. In the total sample, 58% of the participants were identified as Trabzon residents. Furthermore, the participants resided in 33 neighborhoods in Trabzon. The presence of occupants from 33 neighborhoods out of the 85 neighborhoods in Trabzon Central Ortahisar District indicated that the coast was a strong attraction. In addition, 79% of the participants stated that they were home owners and lived in close proximity (Table 1).

Table 1. Percentage distribution of participant demographics.

		Percentage (%)			Percentage (%)
Gender	Male	42	Job	Student	60
	Female	58		Official	11
Age	16 -20	22		Worker	12
	21-25	49		Self-employed	10
	26-30	10		Housewife	4
	31-35	5		Retired	3
	36-40	3	Birthplace	Trabzon	58
	41-45	4		Other cities	42
	46-50	2	Where are you stay	House	79
	51-56	5		Dormitory	21

2.3 Analyses

Statistical analyses were conducted with SPSS 16 software in order to interpret the data obtained with the survey technique based on the study objectives. Correlation test was used to determine the physical and social properties that open spaces should possess in order to allow the occupants to spend quality time in coastal parks, and factor analysis was used to categorize the statements. In these tests, $p < 0.05$ was accepted as statistically significant.

2.4 Occupant Satisfaction Based On Physical and Social Conditions

Coastal parks are among significant urban open spaces. It was emphasized in several studies that the functions, quality and quantity of these spaces are very important for the city and the city dwellers. In addition to the evaluation and development of open spaces based on planning and design principles, the urban image they create for the city and urban residents should be analyzed. Although the frequency of the spatial use is a criterion, the basic structure of the present study aimed to determine

whether the spatial use in the coastal park case was compulsory or voluntary. The fact that open spaces are occupied voluntarily due to the physical and social dimensions of the space rather than random or compulsory occupation is important in the determination of the spatial value.

The present study was conducted only on the physical and social dimensions of open spaces among several functions of these spaces. Accordingly, a 7-point Likert-type attitude scale that contained 35 statements describing the above-mentioned two function groups was used. During the analysis, the 35 clear and comprehensible statements posed to the participants were converted into concepts (Table 3). In a study that aimed to analyze the occupation in coastal areas in Istanbul, a 5-point Likert-type scale was utilized (Dikçınar Sel, 2018).

Based on the collected data, the distribution of the statements that questioned the satisfaction level of the coastal park users and percentages based on the most frequent complaints was as follows; inadequate furniture (physical dimension), unclean and not well-maintained (physical dimension), lack of support for children and elderly occupation (social dimension), inadequate number of meatball vendors (social dimension), and unsafe during the night (physical dimension). Furthermore, 51% of the participants expected more and different activities in open spaces. This expectation supported the idea that functional attributes positively affect the open space occupancy. The statements that reflected the satisfaction of the participants with the coastal space included the support of coastal occupancy by the presence of the sea (physical dimension) (47%), the psychological comfort provided by the sea (social dimension) (36%), the landscape views (physical dimension) (35%), adequate number of flowers (physical dimension) (34%), suitability for cycling (social dimension) (31%) (Figure 3).

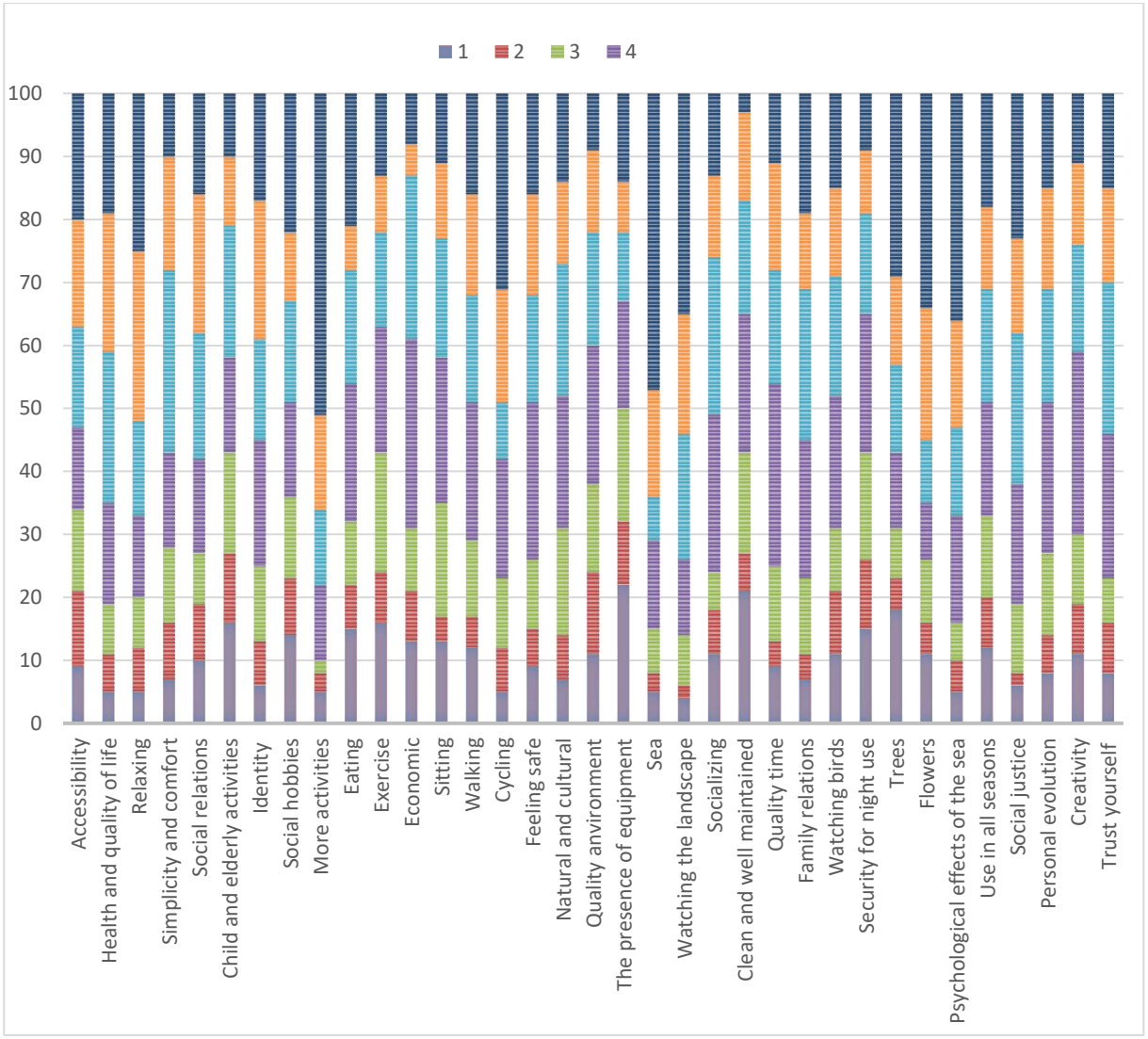

Figure 3. The statements that questioned the coastal park occupant satisfaction with physical and social conditions and percentages.

Table 3. Mean and standard deviation values for participant satisfaction with the coastal park.

Items	Statements		Mean	SD
Accessibility	1.	I can easily access.	4,46	0,20
Health and quality of life	2.	Supports mental health and quality of life.	4,90	0,17
Relaxing	3.	It rests me.	**5,07**	0,18
Simplicity and comfort	4.	The place is simple but comfortable.	4,43	0,17
Social relations	5.	It allows me to develop good relationships with my friends.	4,56	0,19
Child and elderly activities	6.	It is suitable for the participation of children and the elderly.	3,87	0,19
Identity	7.	It is an important component of urban identity.	4,67	0,18
Social hobbies	8.	Suitable for our hobbies (painting, reading books, listening to music etc.).	4,31	0,21
More activities	9.	I would like to have more different services and activities.	**5,72**	0,17

Eating	10.	The presence of food buffets attracts me.	4,26	0,20
Exercise	11.	I prefer to use the exercise tools.	3,89	0,19
Economic	12.	It has economic eating and drinking alternatives.	3,95	0,17
Sitting	13.	It has different options for sitting.	4,11	0,18
Walking	14.	It has different options for walking.	4,39	0,19
Cycling	15.	I prefer to ride a bike.	4,98	0,19
Feeling safe	16.	I feel safe.	4,47	0,18
Natural and cultural	17.	It has natural and cultural beauties.	4,37	0,17
Quality environment	18.	It has clean air and quality environment.	3,98	0,18
The presence of equipment	19.	Seating units, covering elements, wc, fountain, food buffets are sufficient.	3,65	0,20
Sea	20.	I prefer for the existence of the sea.	**5,54**	0,18
Watching the landscape	21.	It is quite suitable for landscape viewing..	5,39	0,17
Socializing	22.	It has the appropriate qualifications to socialize.	4,37	0,18
Clean and well maintained	23.	Clean and well maintained.	3,64	0,18
Quality time	24.	It is very convenient to spend quality time.	4,38	0,17
Family relations	25.	Very suitable for spending time with family.	4,64	0,17
Watching birds	26.	Suitable for watching birds or hearing voices.	4,29	0,19
Security for night use	27.	Also safe for night use.	3,79	0,18
Trees	28.	Trees are inadequate.	4,57	0,22
Flowers	29.	Flowers are inadequate.	5,01	0,21
Psychological effects of the sea	30.	The presence of the sea provides psychological comfort.	**5,25**	0,18
Use in all seasons	31.	I use it easily every season.	4,33	0,19
Social justice	32.	Social justice (I have access to the same rights and opportunities as everyone else)	4,90	0,17
Personal evolution	33.	It contributes to our personal development.	4,46	0,18
Creativity	34.	Offers a creative perspective.	4,16	0,18
Trust yourself	35.	It supports freedom and self-confidence.	4,52	0,17

Furthermore, the mean values presented in Table 3 demonstrated that the statements “I would prefer different services and activities” (5.72), “I prefer the space due to the presence of the sea” (5.54), “The presence of the sea provides psychological comfort” (5.25), and “It makes me feel rested” (5.07) received the highest mean values.

Correlation test was conducted to determine the functions considered as a requirement by the participants to spend quality time in the coastal area. Correlation test was conducted after the potentially correlated element was assigned as the dependent variable and the elements with a potential correlation with the dependent variable were assigned as independent variables. With this

approach, the correlation between the dependent variable "The coastal area that I am in is quite suitable to spend quality time" (S24) and the independent variables that included the statements describing the functions of the open space were tested with the correlation test. Correlated adjectives (significant at 0.01 level) are indicated with double asterisk (Table 4). Thus it was determined that "adequacy for quality time" variable was positively correlated with "It supports my spiritual and physical health and quality of life" (n=100, r^2=0,365, p<0.01), "It makes me feel rested" (n = 100 r^2 = 0.305, p <0.01), "It is a simple but comfortable space" (n = 100, r^2 = 0.511, p <0.01), "It allows me to maintain good relations with my friends" (n = 100, r^2 = 0.396, p <0.01), "It allows to conduct activities suitable for children and the elderly" (n = 100, r^2 = 0.417 , p <0.01), "It is an important component of the urban identity" (n = 100, r^2 = 0.347, p <0.01), "There are inexpensive food and beverage facilities" (n = 100, r^2 = 0.363, p <0.01), "It offers different choices to sit" (n = 100, r^2 = 0.306, p <0.01), "It offers various walking facilities" (n = 100, r^2 = 0.416, p <0.01), "I prefer this space to ride a bike" (n = 100, r^2 = 0.3326, p <0.01), "I feel safe there" (n = 100, r^2 = 0.439, p <0.01), "It has natural and cultural attractions" (n = 104, r^2 = 0.279, p <0.01), "It has clean air and quality environment" (n = 100, r^2 = 0.490, p <0.01), "The number of furniture, covers, bathrooms, fountains, meatball vendors are sufficient" (n = 100, r^2 = 0.319), "I prefer the space due to the presence of the sea" (n = 104 , r^2 = 0.436), "It is quite suitable to view the landscape" (n = 100, r^2 = 0.412, p <0.01), "It provides quality properties for socialization" (n = 100, r^2 = 0.415, p <0.01), "It is clean and well-maintained" (n = 100, r^2 = 0,557, p <0.01), "It is quite suitable for spending time with the family" (n = 100, r^2 = 0.547, p <0.01), "It is suitable for watching or listening to birds" (n = 100, r^2 = 0.284, p <0.01), "It is safe to use at night" (n = 100, r^2 = 0.257, p <0.01), "I use it easily in every season" (n = 100, r^2 = 0.366, p <0.01), Social justice (I can access the same rights and opportunities as everyone else)" (n = 100, r^2 = 0.358, p <0.01), and "It provides a creative perspective" (n = 100, r^2 = 0.430 p <0.01) statements, respectively (Table 4).

Furthermore, the attitudes of the users towards the coastal area were grouped by factor analysis. Factor analysis allows the collection and interpretation of several variables in various groups. Thus, the statements (variables) listed under the physical and social categories were grouped based on the factor analysis. Before the factor analysis, the suitability of the data for factor analysis was evaluated by Kaiser Mayer Olkin (KMO) and Bartlett tests. For the scale that included 35 statements, the KMO value was determined as 0.831 and the Bartlett test result was determined as X^2 = 1271.253 ($p \leq$ 0,0001). Due to the fact that KMO value was higher than 0.6 and the Bartlett test was significant, the data was considered suitable for factor analysis. The reliability of the factor groups was tested with

Cronbach Alpha analysis. Thus, Cronbach Alpha coefficient was found as 0.922 for 35 statements. This value was well above the desired 70% level.

Table 5. The results of the factor analysis conducted on the open space satisfaction scale.

Factors	Factor eigenvalues	Explained variance %	Cumulative variance %
1	8,974	35,897	35,897
2	2,275	9,102	44,999
3	1,398	5,592	50,591
4	1,306	5,223	55,815
5	1,207	4,827	60,642
6	1,111	4,443	65,084

Table 4. The correlation table for physical and social determinants of spending quality time at coastal spaces

	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S24
S1																																			
S2	,511**																																		
S3	,405**	,775**																																	
S4	,366**	,616**	,655**																																
S5	,290**	,542**	,572**	,642**																															
S6	,302**	,506**	,420**	,520**	,619**																														
S7	,414**	,622**	,510**	,514**	,463**	,519**																													
S8	,210*	,332**	,337**	,301**	,353**	,581**	,387**																												
S9	,211*	,168	,108	,178	,110	,041	,236*	-,049																											
S10	,216*	,223*	,327**	,404**	,462**	,350**	,221*	,228*	,024																										
S11	,032	,082	,068	,049	,241*	,219*	,076	,136	,245*	,010																									
S12	,182	,203*	,198*	,357**	,478**	,322**	,180	,194	,051	,430**	,188																								
S13	,051	,162	,204*	,074	,286**	,302**	,124	,259**	,240*	,068	,338**	,168																							
S14	,036	,099	,146	,249*	,208*	,187	,247*	,182	,280**	,098	,130	,135	,399**																						
S15	,270**	,343**	,324**	,380**	,430**	,359**	,298**	,247*	,339**	,149	,239*	,187	,523**	,340**																					
S16	,112	,485**	,381**	,371**	,395**	,353**	,242*	,232*	,196	,092	,159	,159	,337**	,059	,378**																				
S17	,149	,282**	,321**	,401**	,457**	,466**	,421**	,314**	,229*	,293**	,215*	,252*	,335**	,420**	,290**	,296**																			
S18	,003	,225*	,245*	,303**	,356**	,324**	,210*	,229*	-,044	,128	,112	,287**	,368**	,408**	,244*	,211*	,367**																		
S19	,241*	,252*	,234*	,260**	,360**	,347**	,257**	,222*	-,117	,143	,156	,329**	,340**	,196	,180	,202*	,264**	,416**																	
S20	,297**	,417**	,426**	,445**	,320**	,220*	,529**	,289**	,353**	,210*	-,012	,212*	,088	,246*	,253*	,303**	,318**	,297**	,098																
S21	,177	,397**	,358**	,304**	,463**	,290**	,330**	,242*	,266**	,224*	,065	,344**	,270**	,198*	,286**	,353**	,322**	,403**	,182	,608**															
S22	,040	,202*	,157	,302**	,436**	,427**	,291**	,339**	,186	,249*	,285**	,431**	,435**	,464**	,363**	,268**	,575**	,441**	,289**	,213*	,453**													
S23	,119	,136	,125	,259**	,284**	,310**	,154	,273**	-,023	,245*	,168	,467**	,401**	,300**	,145	,280**	,408**	,500**	,568**	,195	,328**	,477**												
S25	,177	,383**	,334**	,433**	,357**	,369**	,358**	,236*	,245*	,153	-,028	,296**	,384**	,462**	,518**	,386**	,448**	,415**	,303**	,306**	,374**	,397**	,430**											
S26	-,042	,160	,199*	,353**	,359**	,288**	,225*	,210*	-,025	,217*	,267**	,387**	,243*	,116	,236*	,201*	,328**	,344**	,263**	,214*	,314**	,321**	,352**	,295**										
S27	,137	,201*	,185	,149	,216*	,319**	,224*	,264**	,145	,161	,231*	,129	,352**	,163	,238*	,284**	,176	,315**	,243*	,050	,058	,333**	,178	,185	,174									
S28	-,100	-,117	,054	,060	-,021	,023	-,091	,007	,103	,190	-,028	-,014	,068	,053	-,009	,001	,182	,036	,013	-,117	-,152	,186	-,042	-,041	-,100	,289**								
S29	-,036	,081	,207*	,328**	,035	,077	,070	,035	,071	,306**	,262**	,035	-,008	,126	,047	,096	,146	,098	-,025	,138	-,048	,002	,055	,145	,054	-,021	,656**							
S30	,161	,212*	,312**	,276**	,276**	,163	,262**	,136	,436**	,294**	,158	,098	,328**	,084	,373**	,254*	,221*	-,020	,024	,293**	,361**	,236*	,063	,219*	,104	,121	,088	,056							
S31	,250*	,320**	,349**	,291**	,334**	,269**	,248*	,170	,094	,218*	,026	,303**	,327**	,362**	,370**	,210*	,347**	,386**	,322**	,187	,356**	,259**	,339**	,425**	,189	,188	-,014	,112	,144						
S32	,281**	,416**	,317**	,409**	,472**	,351**	,407**	,145	,326**	,153	,103	,352**	,285**	,073	,337**	,355**	,343**	,344**	,200*	,493**	,474**	,305**	,222*	,300**	,158	,314**	,021	,101	,280**	,330**					
S33	,061	,259**	,309**	,394**	,344**	,397**	,357**	,303**	,273**	,132	,304**	,204*	,274**	,239*	,534**	,412**	,418**	,077	,226*	,220*	,171	,281**	,230*	,360**	,369**	,160	,121	,204*	,273**	,399**	,325**				
S34	,182	,221*	,202*	,335**	,467**	,474**	,402**	,435**	,191	,187	,227*	,370**	,331**	,326**	,405**	,238*	,393**	,283**	,367**	,330**	,263**	,445**	,400**	,402**	,379**	,240*	-,080	-,028	,159	,324**	,466**	,626**			
S35	,205*	,358**	,358**	,501**	,442**	,404**	,496**	,301**	,310**	,139	,220*	,285**	,256*	,346**	,413**	,378**	,385**	,217*	,323**	,385**	,205*	,353**	,254*	,445**	,380**	,317**	-,007	,068	,218*	,261**	,390**	,609**	,674**		
S24	,148	**,365****	**,305****	**,511****	**,396****	**,417****	**,347****	,242*	,149	**,245***	-,003	**,363****	**,306****	**,416****	**,326****	**,439****	**,279****	**,490****	**,319****	**,436****	**,412****	**,415****	**,557****	**,547****	**,284****	**,257****	-,094	,141	,122	**,366****	**,358****	,228*	**,430****	**,396****	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Factor analysis Varimax rotation was used to groupe the factors in the study. Based on the data obtained in factor analysis, six factors with eigenvalues above 1.0 explained 65,084% of the variance in scale scores. The first factor explained 35.897% of the total variance. Thus, the findings demonstrated that the statements in this group of factors (Identity-Quality) were more important for Trabzon coastal parks when compared to the other groups. It was determined that the second factor group (Social-Cultural) explained 9.102% of the total variance, the third factor group (functional) explained 5,592% of the total variance, the fourth factor group (Subjective) explained 5,223% of the total variance, the fifth factor group (Perceptual) explained 4.82% of the total variance and the sixth factor group (Safety) explained 4.443% of the total variance (Table 6).

Table 6. Factor groups for open space satisfaction levels.

Statements	**Factor loads**						
	1	**2**	**3**	**4**	**5**	**6**	**Proportional change**
Identity-Quality							
S2	,861						,831
S3	,854						,791
S4	,741						,727
S5	,587						,664
S6	,533						,606
S7	,620						,646
Social-Cultural							
S12		,686					,604
S18		,531					,576
S19		,661					,600
S22		,440					,587
S23		,765					,708
S26		,511					,434
Functional							
S13			,472				,707
S14			,858				,790
S15			,440				,597
S17			,483				,519
S25			,601				,583
S31			,492				,467
Subjective							
S34				,728			,735

S35				,730			,737
Sensory							
S20					,740		,765
S21					,785		,803
S32					,602		,671
Security							
S16						,563	,555
S27						,698	,566
% of variance	35,897	9,102	*5.592*	*5,223*	*4,827*	*4,443*	

3.CONCLUSION AND RECOMMENDATIONS

The present study aimed to emphasize the significance of transferring and developing the coastal areas to the next generations in high-population urban areas. In this context, in order to create a resource for future planning and design studies, the space occupants were questioned. Because, besides the facilities provided by the spaces, knowledge on user expectations in the design process, and production of relevant options affect the success of the design and the construction.

Based on the data collected in the present study conducted in the coastal area in the city of Trabzon, in the physical category, the occupants stated that the furniture were not sufficient, the area was not clean and well-maintained, and also it was not safe to use at night, while in the social category, they stated that the area did not support use by children and elderly, and the food and beverage facilities were not sufficient. Despite these problems, the area was used frequently and intensely during periods of adequate weather. Thus, it can be suggested that the area actually had deficiencies, however the absence of alternative spaces on the urban coastline led people to utilize this area. Therefore, the intensely occupied spaces do not necessarily reflect preference, but may demonstrate the lack of alternatives.

Furthermore, the participants stated that they desired more and different activities in open spaces. Since the diversity of the activities would fulfill the expectations of different users, it would positively affect the preference and satisfaction levels for the area. However, a certain area size is required. This should be considered in the planning stage by professional disciplines and administrators who make urban decisions.

From the physical perspective, participants described the support provided by the presence of the sea to coastal use, the suitability of the area to view the landscape, the sufficient number of flowers in the

area as positive features. From the social perspective, the psychological relaxation and comforting effect of the sea and the suitability of the area for cycling were defined as positive features by the occupants. Biking actually requires a physical space and this activity supports socialization. In Trabzon city, bicycles are not used as an alternative urban transportation. Thus, open spaces that allow cycling are preferred by users.

The analyses conducted on the collected obtained data revealed 25 criteria required to spend quality time in an open space and these criteria were grouped under 6 categories. These included Identity-Quality (Health and quality of life, Relaxation, Simplicity and comfort, Social relations, Child and elderly activities, Identity), Social-Cultural (Economic, Quality environment, presence of furniture, Socialization, Cleanliness and maintenance, Watching birds), Functional (Sitting, Walking, Biking, Natural and cultural, Family relations, Availability in all seasons), Subjective (Creativity, Self-confidence), Perceptual (Sea, Landscape viewing, Social justice), Security (Feeling safe, Night security). Among these, especially the criteria specified under the heading of identity-quality were determined to be more important. All above-mentioned criteria reflected the expectations of individuals both in the coastal park and in open spaces in general. Thus, these factors should be assess during the landscape architecture design process, which is a discipline that designs open spaces based on the requirements and demands of the occupants.

REFERENCES

Akköse, A.C., (2007). Kentsel Kıyı Alanlarının Yeniden Değerlendirilmesi Kapsamında İstinye Tersane Alanının İncelenmesi, Yüksek Lisans Tezi, İTÜ Fen Bilimleri Enstitüsü, Şehir Planlama Anabilim Dalı, İstanbul [The Analysis of Istinye Shipyard Area within The Context of Redevelopment of Urban Waterfront Areas, Master Thesis, İTÜ, Department of Urban and Regional Planning, İstanbul].

Aybay, N., (2006). Üsküdar-Haydarpaşa Arası Kıyı Düzenlemesin Rekreasyonel Açıdan Değerlendirilmesi, Yüksek Lisans Tezi, Bahçeşehir Üniversitesi, Fen Bilimleri Enstitüsü, Çevre Tasarımı Yüksek Lisans Programı, 134 sayfa, İstanbul [Recreational Assessment of Coastal Arrangement Between Uskudar and Haydarpasa, Master Thesis, Bahçeşehir University, Environmental Design Graduate Program, 134 p., Istanbul].

Dikçınar Sel, B., (2018). İstanbul Kıyılarında Farklı Toplumsal Yapılar ve Kıyı İlişkileri [Diffrent Social Structures in İstanbul Coasts and Relaitions with the Coasts], Megaron, 13(3): 442-450. https://www.journalagent.com/megaron/pdfs/MEGARON-23600-ARTICLE-SEL.pdf

Henden Şolt, H.B., (2018). Kentlilerin Kıyı Alanı Düzenlemesine Bakışı: Alaplı Örneği [View of the Coastal Area Arrangement of Cities: Alaplı Example,], Aksaray Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 10 (2), 55-62. https://dergipark.org.tr/download/article-file/622723

Kurt, S., Demirci, A. ve Karaburun, A. (2007). İstanbul Kıyılarında 1987 ve 2007 yılları arasında Arazi Kullanımında Meydana Gelen Değişimler [Coastal Land Use Changes in İstanbul between 1987 and 2007], Eastern Geographical Review, 26, 115-128.

Oktay, H.E., Erdoğan, R., Oktay, F.B., (2015). Kent ve Su, İnönü Üniversitesi Sanat ve Tasarım Dergisi [City and Water, İnönü University Journal of Art and Design] 5 (11), 119-125. https://dergipark.org.tr/download/article-file/92533

Öztekin, D., (2010). Sosyal ve Fiziksel Çevre Bağlamında Koruma Planları Antalya Kaleiçi Örneği, Yüksek Lisans Tezi, Yıldız Teknik Üniversitesi, Fen Bilimleri Enstitüsü Şehir ve Bölge Planlama Anabilim Dalı Kentsel Koruma ve Planlama Programı, İstanbul [Conservation Plans in The Context of Physical and Social Environment Antalya Kaleiçi Case, Master Thesis, Yıldız Technical University, Department of Urban and Regional Planning, Urban Conservation and Planning Program, Istanbul].

Yavuz, A., Acar, H., Aydın Türk, Y. (2013). Yenilenen "Kent" ve "Kentli" kimliği: Trabzon kenti örneği, 23. Kentsel Tasarım ve Uygulamalar Sempozyumu, Mimar Sinan Güzel Sanatlar Üniversitesi, İstanbul, Türkiye, 42-157 pp., 12-13 Aralık [Renovated "Urban" and "Inhabitants" identity: Trabzon city example, 23. Urban Design and Applications Symposium, Mimar Sinan Fine Arts University, Istanbul, Turkey, 42-157 p. 12-13 December].