
Examination of Significant Urban Parks in Bursa Province In Accordance With the Landscape Design Criteria

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ABSTRACT

Urban parks created by proper planning, design and applications and of which continuity has been ensured with maintenance works are prominent places among the open-green spaces in the city with their features with a high potential for recreational use, which positively affect the life quality of the city, render the city attractive and livable, make positive contributions to the character and the image of the city, provide balance among function, aesthetics and ecology.

In this study, in addition to revealing the importance of urban parks among open-green spaces in the solution of the problems arising from physical, social and biological aspects in cities, Reşat Oyal Culture Park, Soğanlı Botanic Park and Merinos Park located in Bursa province were examined according to the landscape design criteria under the headings determined as their locations and environmental relations, transportation conditions, space usages, plantal conditions, urban equipment included and security and maintenance conditions, and solution suggestions were developed for the effective and sustainable uses of the urban parks studied by revealing their positive and negative aspects.

Key Words: *Urban parks, Urban Green Areas Landscape Architecture, Bursa/Turkey,*

INTRODUCTION

The first modern urban park was designed in the United Kingdom in the 1890s as a solution to the social problems generated by mass urbanization. Today the park serves a wide variety of social purposes. An urban park is defined here as follows:

A bounded area of public open space that is maintained in a “natural” or semi-natural (landscaped) state and set aside for a designated purpose, usually to do with recreation. Parks are often enclosed by a boundary barrier, which may be permeable or semipermeable (a hedge, fence, or wall). An urban park is as much a designed space as an urban shopping mall or a recreational complex such as Disneyland (Hilborn 2009).

Since cities are physical spaces which continuously develop, the continuous vertical and horizontal alteration and concentration of the elements located in these spaces are in question. This alteration and concentration observed in urban spaces, on the one hand, eliminate the opportunity to live freely and comfortably causing congestion within the urban space and, on

the other hand, induce economic and technical difficulties with the expansion to the environment (Kuter 2007).

According to English landscape architect Sylvia Crowe, open-green spaces are defined as “the areas which serve passive recreation with regard to sitting and watching such as small parks, playgrounds, squares in the dense urban structure in which architectural elements are dominant and which provide the opportunity for active recreation far from the crowd of the city”.

Green spaces are formed as a result of organizing open spaces in a conscious and planned way with plant material (Önder and Ülger 2006).

Urban parks provide a large variety of benefits including environmental and particularly recreational benefits. These depend, among other things, on the characteristics of the parks visited such as their size, cleanliness, and available facilities such as playgrounds and sport facilities. Other important park characteristics are accessibility and distance between the place of residence and the parks. The latter is often mentioned as the most crucial determinant of the frequency of park visits. The importance of urban parks and other types of green urban areas has also increasingly attracted attention in the literature on ecosystem services and their value to society (Bertram et al. 2017).

The functions of green spaces in the urban use can be listed as land usage planning, climatic, recreation, mental health, ecologic and economic (Dedeoğlu 2006).

Open and green spaces present the natural landscape characteristics and beauties to the urban people who have been alienated from nature, yearned for nature among the dense structural masses of the city by representing the rural landscape within the city. Thus, in addition to protecting the relation between the city and nature, they provide physical and psycho-hygienic benefits to city dwellers. They affect the mental personalities of people and increase their dependence on the space (Tosun 2007).

Park areas are both an urban element and have the characteristics of being a social space with respect to their characteristics of creating the “green” system within the city and maintaining the continuity of this system. They are the focal points on which the urban cultural accumulation is reflected and at which urban communication is carried out. Parks are divided into various classes according to their functions, service areas, and locations. In addition to ensuring the separation of parks both ecologically and socially, this classification determines the service quality, equipment, landscape value, accessibility and aesthetic value of parks, the contribution of parks to the urban life quality. The fact that the concept of “green” exhibits the “quality” side of urban life in addition to connotating naturalness reveals its both ecologic and social impact on the quality of the urban life (Emür and Onsekiz 2007).

The conception of physically, socially and visually sufficient, high-standard outdoor designing has begun to find its place nowadays. Within the daily living environment, urban spaces carry great significance in meeting the needs in this aspect. The most significant one of this kind of spaces is urban parks which harbor many recreational opportunities and facilities (Önder and Polat 2004).

As publicly-funded elements of the urban landscape, parks provide significant public health and sustainability benefits to urban communities. In terms of public health, urban parks offer opportunities for repeated contact with nature and for physical activity even in dense urban

settings. Research in several countries has shown that daily contact with nature positively contributes to people's health and wellbeing, regardless of cultural variations. For adults, having access to neighborhood parks is associated to higher levels of physical activity, better mental health, lower levels of stress, and better overall well-being (Rigolon 2016).

Urban parks are the public service areas which develop as a condition to urbanization, and which undertake very significant and various functions in reestablishing the disconnected nature-human relation within the complex urban organization (Kızılaslan 2007).

An urban park may harbor the elements such as a sports complex, a pond or a big water area, a zoo, a restaurant, observation towers, miniature villages, picnic areas, camp areas, coppice forest areas, etc., differently from those in a district park (Zaloğlu 2006).

The objective of this study is to reveal the significance of urban parks among open-green spaces in the solution of the problems arising from physical, social and biological aspects in cities, to develop solution suggestions for the efficient and sustainable use of urban parks by emphasizing the importance of the landscape design criteria in creating quality urban parks.

MATERIAL AND METHOD

Reşat Oyal Culture Park, Soğanlı Botanic Park and Merinos Park located in Bursa province and the written and visual information on these urban parks, the data obtained as a result of the examinations carried out in the parks and the photographs of these areas constitute the main material of this study. The locations and environmental relations, transportation conditions, space usages, plantal conditions, urban equipment included and security and maintenance conditions of the parks were taken into consideration and examined in accordance with the landscape design criteria, and positive and negative features which they carry regarding these matters were exhibited. Based on the urban parks examined, solution suggestions were presented for more efficient and sustainable uses of urban parks.

DISCUSSION

Reşat Oyal Culture Park, Soğanlı Botanic Park, and Merinos Park were examined by taking their locations and environmental relations, transportation conditions, space usages (activity, recreational opportunities), plantal conditions, urban equipment included and security and maintenance conditions into consideration.

Regarding their locations, environmental relations and transportation conditions

The transportation planning permeates the interests of actors who can influence decision making, such actors have two basic characteristics: The view over the city and the power to implement it. Two actors have the above characteristics, the owners of the event and the leaders of state. The transportation planning is complex and involves technical, socio-economic and environmental aspects, which can often become inconsistent and subject to various interpretations that can keep political plans away of the real needs of the transport (Menezes and Souza 2014).

For locating urban parks, it is necessary to consider various aspects, e.g. populations in the vicinity, security of the evacuation place, effective utilization of the existing open space (Miyachi et al. 2003).

Reşat Oyal Culture Park and Merinos Park are observed to encourage the use at different times of the day and throughout the year more in comparison with Soğanlı Botanic Park due to their being located in the city center, the diversity and density of area usages in their vicinity, accessibility to the park more easily by more various transportation vehicles.

Regarding the types of the area usage and activity facilities

Physical activity participation provides mental and physical health benefits and can also reduce the risk of many chronic diseases. Evidence regarding the influence of the built environmental physical activity behavior is beginning to accumulate. This evidence suggests that the built environment can both enable and limit physical activity participation. Parks offer a unique setting within the urban landscape, providing opportunities for physical activity, enjoyment of nature, social interaction, and escape. Participation in these opportunities is likely to help explain how parks contribute to improving health and wellbeing of users. There is also evidence that distance from parks and open space is inversely associated with use and physical activity behavior, which might suggest that creating more urban parks within walking distance to most residents could encourage physical activity participation in the population (McCormack et al 2010).

Reşat Oyal Culture Park lost its previous density with the moving of some functions which rendered the park lively in the past such as the fair, the zoo to their new places within the urban development process, especially in the 2000s. In the emergence of this situation, the formation of new consumption spaces and a new type of settlement centers is a significant factor. Besides all of these, the fact that Reşat Oyal Culture Park harbors different types of use such as the Archeology Museum, Culture Park Open Theatre, an amusement park, picnic areas, a football field, healthy life areas, cycle lanes, food-beverage spaces comes across as a factor which increases the variety and number of users.

The changes having been made in the park since the 1950s, adding new structures and removing some structures over time caused chaos within the space and the formation of an unreadable road texture. Although the studies in this aspect were carried out within the scope of the Culture Park Improvement Project in 2007, this negative situation which had been formed within years was not able to be completely removed. As a result of this, accessibility and spatial relations within the area are weak.

Soğanlı Botanic Park mostly harbors spaces which enable passive recreation. In addition to this, a jogging track, a cycle lane, table tennis area and healthy life areas were designed as spaces for active recreation. Its educational side is also considerable with theme gardens, an application garden and the plantal assets it possesses. From this aspect, it presents the opportunity to familiarize with nature and plants to students with the trips organized by schools. Spatial setups are well-conducted and accessibility is ensured in the park.

In addition to the areas which enable active recreation such as a jogging track, a cycle lane and healthy life areas, Merinos Park has a wedding hall, a congress and culture center, an energy museum, an observation tower, food-beverage spaces, children's playgrounds, a disaster management center and an open show area. The congress and culture center and open

show area are not active usages. The organizations and activities to be held in these areas will increase the usage potential of the park. The spatial setup is weak in the park. A direct connection between parking lots and enclosed spaces was not established. This situation causes traffic jam especially in the west part of the park. Parking lots directly connected with the other entrances of the park and the wedding hall should be created. However, accessibility within the park has been provided. Structural and plantal differences between the east and west parts of the park exist. Activity areas are located in the west and center of the park. No facilities have been presented to attract people in the east of the park. This causes usage density to be concentrated in the west and center of the park. Different activity areas should also be created in the east part of the park. It is seen that a sufficient number of sanitary units is not included and that the children's playground is not sufficiently big. Sanitary units should be included within the park. The current playground should be enlarged or children's playgrounds should be created in different places of the park.

Regarding plantal conditions

Tree placement is a key element in urban landscape architectural design. Trees are one of the tools for defining outdoor open space. They provide shape and configuration to spatial environments. Many aspects must be considered when proposing sites for tree planting in urban areas. The important site conditions related to tree selection include climate factors, soil characteristics, environmental conditions, planting space, site location, existing vegetation, esthetics, land ownership and regulations, social influences, and maintenance requirements. Minimum widths of planting sites for trees with different full-grown sizes: 3–4 ft (0.90–1.20 m) for small trees, 4–6 ft (1.20–1.80 m) for medium trees, and over 6 ft (1.80 m) for large trees, with 1 ft (30 cm) (Mahmoud and Omar 2015).

Reşat Oyal Culture Park is among the most significant spaces which have dense and grown tree presence in the city center. In general, it harbors the species suitable for the city climate. However, it is weak in terms of the plantal design. The park should be supported by using bushes and ground covering species. Especially the vicinity of the pond located in the center of the park should be designed by using the species with a high visual effect.

Soğanlı Botanic Park, as can be understood from its name, harbors many plant species. As different compositions were created in the theme gardens, the main axes and the cycle lane were defined by using different trees.

Merinos Park lost most of its tree presence which it possessed in the factory area condition during its transition into a park. A plantal disconnection exists between the east and west parts of the park. The east of the park should be supported by the presence of grown trees. Furthermore, the users should be presented with comfortable sitting areas by associating the species with a shade effect with sitting elements.

Regarding the urban equipment/furniture included

With the development of urban life, city advertising has been progressing/becoming widespread and it can be observed that there is an increase in the use of urban furniture. Usage of urban furniture then must be designed in relation with the other vital and environmental elements in the city. The graphical design that is used in urban furniture increases the perceptibility of the places and elements by differentiation. For this reason, usage of the furniture has an important place in promotion. The importance of using design in urban arrangements within the complex structures of the cities is an undeniable fact. With the

new identity they developed, cities make the life more enjoyable and meaningful and they create urban aesthetics. Urban furniture should be used in the most suitable way for the structure of the city. Advertisements changing from city to city varies according to the products, and just like this, furniture varies due to the positioning (Bulduk 2012).

The greatest deficiency which stands out in all three parks examined is that urban equipment does not have different designs peculiar to the park and unity which will contribute to the identity of the park. In addition to this;

The absence of the plans regarding Reşat Oyal Culture Park comes across as a great deficiency. That kind of urban equipment which will ease the access should be placed at the entrances to the park. In order to ensure unity in the equipment in the park and regarding their harmony with nature, information, sign and direction boards made from the metal material should be removed and wooden urban equipment should be preferred. The plant crates used for preventing the traffic at certain points should be designed by using visually effective plants. The sitting units used in the park are from the wooden material and uniform, however, hiking and cycle paths were positioned without creating any pockets. Pockets should be formed for sitting units in a way that will not prevent the passage of pedestrians and bicycles. It is observed that the garbage containers made of the wooden material used in the park are sufficient in number and positioned properly. The plastic garbage containers used for moving the garbage away from the area should not be left randomly in the park. The night view of the park can be positively supported by using low illumination elements in addition to high illuminations used in the park. In Reşat Oyal Culture Park, Atatürk's Bust is located as a plastic object at the entrance of the Stadium. Besides this, focuses can be created by using a different kind of plastic objects in various sections of the park. The sports equipment used in the healthy life areas created at two different points in the park is not sufficient in number taking the size of the park and its usage density into consideration, these units should be increased in number.

The information boards which are used in Soğanlı Botanic Park and were produced out of the metal material in yellow and green colors are intelligible and readable. Concrete plant crates used for preventing the passage of vehicles lack aesthetics. As more aesthetic plant crates can be used, the visual effect of these elements should be increased with plantal designs. Sitting units produced out of the wooden material were used throughout the park, and it is seen that they are sufficient in number. The sitting elements which are observed to have been neglected in some parts of the park, especially the amphitheater designed sitting units, need to have necessary renovation works and attain a healthy appearance. The garbage containers constitute the biggest deficiency in terms of the urban equipment in the park. Blue garbage bags are used as a garbage container in the park. In this aspect, it is both unhealthy and lacks aesthetics. The garbage containers produced out of the wooden material can be used in a way that will ensure unity with the sitting units in the park. Night use can be also visually supported by using low illumination elements in addition to high illumination used in the park. Children's play elements were produced out of the wooden material, and it is seen that they are sufficient in number and well-kept. The sports equipment used in the healthy life areas created in two different areas in the park are iron-constructed, however, when the area size and usage density are taken into consideration, they should be increased in number. The cover coat elements used in the park should pass through a necessary maintenance process

and be aesthetically improved by being supported with plantal material in addition to their being functional.

The direction boards produced out of the plastic and metal material should be removed so as to ensure meaning unity and not to cause confusion on the information boards in Merinos Park. The sitting units used in the park should be located by creating pockets in a way that will not prevent the passage of pedestrians and bicycles as in other parks. The two kinds of garbage containers should be used uniformly so as to have unity and increased in number in the east part of the park. It should be overseen that the fountains which have been observed not to be sufficient in number in the park should be increased in number and also be suitable for ergonomic sizes. The children's play elements used in the park are insufficient in number, this also originates from the insufficiency of the children's playground. Children's playgrounds should be created at different sections of the park and thus the children's play elements should be increased in number.

Regarding maintenance and security

Regular park maintenance and security are important to attracting visitors (He 2015).

According to Project for Public Spaces (2009) the design of a park can have a direct impact on people's perceptions of safety and their willingness to use a space. The physical characteristics which park users associate with high-risk environments include:

- Poor lighting
- Confusing layout
- Physical and aural isolation
- Poor visibility
- No access to help
- Areas of concealment
- Poor maintenance
- Vandalism
- Presence of "undesirables" (Anonymous 2009).

Physical design will either be a risk or a protective factor. In fact, it may be difficult to do much about some of the risk factors, which can result from decisions made many decades ago when the park was originally laid out. Until recently, designers and planners didn't consider crime prevention as part of the design or planning process (Hilborn 2009).

Designing a park for safety is based on what is generally considered to be good design: it meets the needs of its users; it is diverse and interesting; it connects people with place; and it provides people with a positive image and experience. While good design will not necessarily eliminate perceptions of fear or opportunities for crime to occur, it can create the preconditions for effective control.

Great deficiencies exist regarding maintenance in all three parks. This originates from not being able to create a complete management model in the parks. The maintenance of the park areas includes many matters such as the repair or renewal of park structures and equipment, moving the garbage away, the periodical maintenance of plantal landscape. It is observed that especially green spaces are not sufficiently well-kept in the parks examined. Reserving a sufficient budget for the maintenance of the parks, creating an effective management model and maintenance programs in the parks, procuring a sufficient number of qualified personnel

will positively affect the user profile and the number of users as well as creating a positive impact on the quality of the parks.

Regarding providing security in the parks, the presence of the sufficient number of security guards in the park, ensuring the balanced distribution of activity areas, providing necessary illumination for the night use, performing plantal designs that will create areas of clear sight, separating the vehicle-pedestrian-bicycle paths from one another carry a great importance. When these matters are taken into consideration, providing a safer circulation by sorting out the complex path structure in Reşat Oyal Culture Park, avoiding leaving the area empty by creating activity facilities in the east part of the park in Merinos Park, ensuring the sufficient number of and balanced distribution of security guards in all three parks will contribute to the formation of necessary security in the parks.

CONCLUSION

Based on the examples of Reşat Oyal Culture Park, Soğanlı Botanic Park and Merinos Park which we have examined in accordance with the landscape design criteria under the headings determined as their locations and environmental relations, transportation conditions, area usages, plantal conditions, urban equipment included and security and maintenance conditions, the locations of urban parks and environmental relations have an impact on the usage density of the park.

It is seen that the accessibility to the park being in a walking distance or supporting transportation by different public transports also increase the number of users.

As different types of the area usage increase the number of users, they contribute to the formation of different types of users.

Plantal design should ensure the selection of aesthetically, visually and functionally suitable plants and the creation of suitable compositions in addition to the use of local plants which will adapt to the urban climate.

Urban equipment to be used in urban parks should be situated properly within the park in addition to its being suitable for the identity of the city and the park, compatible with one another in a way that will provide meaning unity, aesthetic and functional, suitable for ergonomic sizes and durable.

Other elements that affect the usage of parks are specified as maintenance and security. The maintenance of the park areas includes the repair or renewal of park structures and equipment, moving the garbage away from the area, the periodical maintenance of the plantal landscape, and it affects the image and user number of the park. Providing security in parks includes many matters such as the presence of the sufficient number of security guards, ensuring the balanced distribution of activity areas, providing necessary illumination for the night use, carrying out plantal designs that will create the areas of clear sight and has an impact on the image and user number of the park.

Urban parks are prominent places among the open-green spaces in the city with their features with a high potential for recreational use, which positively affect the life quality of the city, render the city attractive and livable, make positive contributions to the character and the image of the city, provide balance among function, aesthetics and ecology.

Urban parks which have such important functions should be created by carrying out preliminary analyses, following participatory methods and presenting the projects selected as a result of international competitions via controlled and qualified applications and by taking the landscape design criteria that we have mentioned into consideration, and importance should be given to ensuring their effective and sustainable use with the necessary maintenance works.

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