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City Square Design: The Case of Çanakkale Republic Square

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ABSTRACT

The most common usage area of urban life since history is urban open spaces. City squares also are among the most effectively used urban open spaces. They reflect the urban identity due to their characteristic of being unique to the city they are located in. The squares, which are the focus of social activities, carry the history of the city to the place. The squares, which have undergone less change despite the changes and developments of the cities, have continued their existence for a long time as an important public and urban element that reflects and determines the culture and identity of that city. "Çanakkale Republic Square" also has these features. Cumhuriyet Republic, which is the focal point in the center of Çanakkale and has witnessed important events in the city's history, was chosen as the subject of study due to its qualities. The area should also be reconsidered and designed in accordance with today's needs in terms of landscape architecture. In the study, it was opened to make a future design proposal by making an environmental analysis of the square. In the study, Republic Square was examined and the occupancy gap analysis, environmental analysis, transportation analysis, function analysis, green area analysis of the area were made. Thus, all the components that make up the area (physical environment, reinforcements, plant elements, etc.) and their compatibility with each other were evaluated. As a result of the evaluation, it had been deemed necessary to reconsider the field in terms of functionality and aesthetics. As a result of the study, design suggestions has been made that will contribute to the implementation of the public and private sector in the field.

Keywords: Çanakkale, Cumhuriyet Square, Urban spatial, Square design, Landscape design

1. INTRODUCTION

Urban open spaces have been the most commonly used areas of urban life from past to present. Urban squares, on the other hand, are of the most effectively used urban open spaces. Urban squares are the open spaces from where the citizens benefit extensively. They are often located either in or close to the city center and are expected to reflect the city characteristics (Figure 1).



Figure 1. Square examples [1]

These squares, which have public characteristics, are the parts of the whole city and include symbols that affect the city perception of the citizens. The symbols, artistic objects, living components and other elements used on these squares and the harmony of texture and color are important urban images. These symbols must be suitable for the main intended use of the square (Figure 2).



Figure 2. Cumhuriyet (Republic) square1940 years

1.1 The Basic Features of a Square

Its characteristics are shaped by the cultural and social habits of society. It is physically, socially, culturally, and historically integrated with the city. It is specific and reflects the region where it is located. It contains a combination of different functions. It contributes to the aesthetical values of the

city. It reflects the identity of the city. It creates a meeting place for the city people by initiating and directing urban circulation. It serves as a focal point. [2,3]. It is a significant criteria for the physical shaping of the city. It is one of the first public places where urban life took place in the historical process [4].

It undergoes less change despite the changes and developments that cities go through [3] (Figure 3). While urban squares have been the focal points that reveal the identity and personality of the city throughout history, today some of them lose their originality by being used as vehicle squares or parking lots [2,4,5]. This situation causes the squares to lose their quality of spatial perception and image and to turn into undefined areas that are only used as transition areas [6].

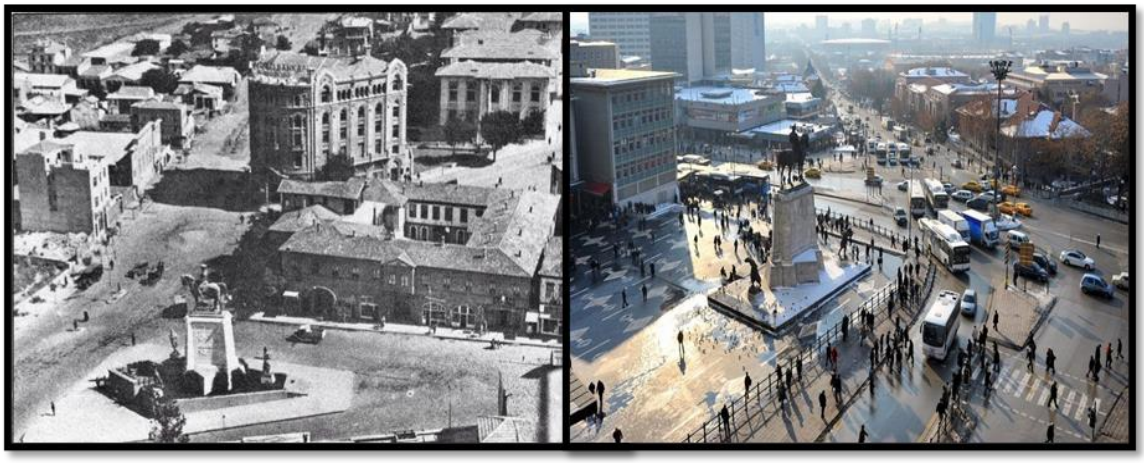


Figure 3. Ulus Square from past to present in Ankara city history [7,8]

The working area is specified as Çanakkale Republic Square. The square is the key point that intersects land and marine transport. It has also witnessed important events in the history of the city (Figure 4). Although it is used for ceremonial purposes today on important days, it has not been able to maintain its focal character with the change of road connections, dense urban development, and wrong plant use. In the study, it is aimed to make future planning and a design proposal through an environmental analysis of the square.



Figure 4. Republic (Cumhuriyet) Square 1950 years

2. MATERIAL, METHOD

The main material of the study is Republic Square with its surroundings in Çanakkale city center. The working area starting from Republic Square and ending at 'Muammer Aksoy Park' includes 'Eski Hükümet Street' and 'Kızılay CaferTürker Street' (Figure 5).

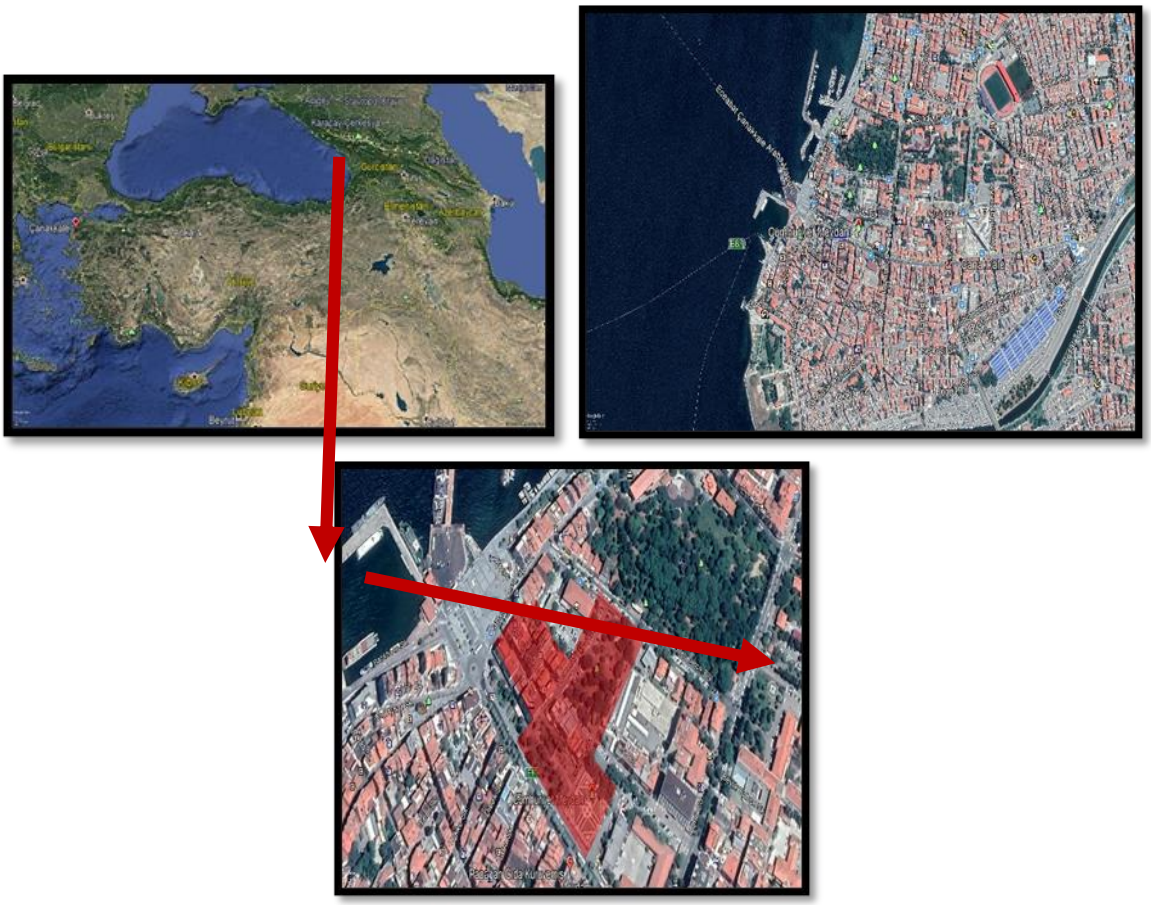


Figure 5. Canakkale and Republic Square (From Google Earth, 2020)

The method of the study consists of observation, analysis, and evaluation.

1-On-site observation of the Square and its surroundings, determining their locations on the map by photographing.

2- Obtaining information from written and visual sources about the past and future plans of the area; the physical and geological structure; current and past states of the area.

3- Discussing with Çanakkale Municipality and Çanakkale City Museum.

4- Making a survey in line with the gathered data.

5- Making the occupancy, transportation, function, green space, and environmental analyses of the Square.

Thus, all components that make up the area (physical environment, urban furniture elements, plant elements, etc.) and their compatibility with each other have been evaluated in line with planning and design criteria.

6- The evaluations have been converted into tables.

7- Analyzes made using Adobe Photoshop CC 2015 software have been shown on maps.

8- As a result, design suggestions have been developed to contribute to the practices of the public and private sectors on the site with 3D models developed using Sketchup 2014, Lumion 6, and Autocad 2013 software.

3. RESULTS

3.1 The Definition of The Working Area

Çanakkale is located in northwestern Turkey lying both on the Gallipoli and Biga Peninsulas (Troas), which is an extension of Anatolia. It is the second city of Turkey with lands in both Asia and Europe (like İstanbul). The city is also quite important in terms of history. The working area starts from İskele (Pier) Square including the clock tower and lies towards the bazaar and has the most intense circulation (Figure 6). The mentioned area is surrounded by plenty of historical places and lots of important official and civil buildings (Figure7).

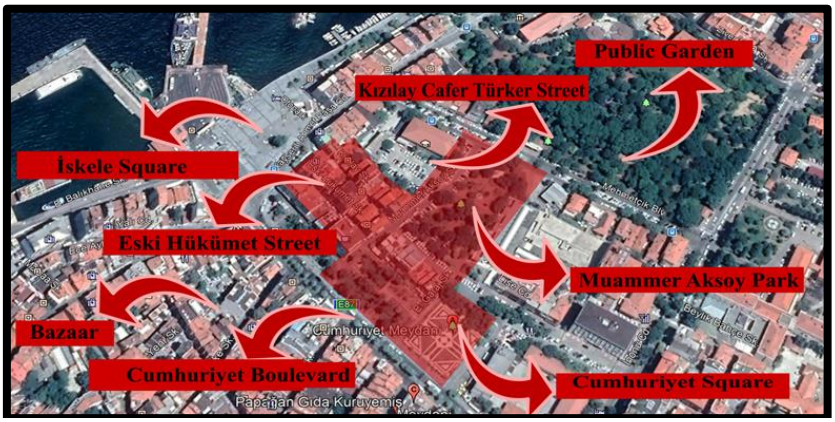


Figure 6. The location of Republic Square and its surroundings (Derived from Google Earth, 2020)

The part from the south of Republic Square, which is the old settlement area of Çanakkale city, to Sarıçay is designated as "Protected Area". All maintenance and restoration works are carried out within the framework of the provisions of the conservation plan implementations by the City Conservation Council [9] (Figure 8).



Figure 7. General view of Republic Square and its surroundings (2019)



Figure 8. 1-Muammer Aksoy Park, 2- Eski Hükümet Street, 3- Kızılay Cafer Türker Street, 4- Working area (derived from Google Earth) 5- Republic Square and its surroundings today [10]

3.2 Time-Flow on The Square

Republic Square was designed right after the proclamation of the republic and has witnessed ceremonies since then. The square still has to reflect the historical, cultural, and social values of the city today, but not yet. The square has been maintained by the municipality since city settlement plans started to be prepared. In addition to official ceremonies concerts, exhibitions, fairs, and other outdoor activities are being organized on the Square [11]. The most significant symbol on the square is the statue of Atatürk modeled by Nejat Sirel in 1034 and opened in 1937 [12]. The square that has undergone constant changes in time experienced the latest one in 2000.

The Statue used to face the sea in the past, whereas it was located in its current position following the latest change (Figure 9). The Square used to form integrity with its surroundings but now it creates a perception of an isolated semi-closed space (Figure 10).



Figure 9. Salvation of Çanakkale, 18 March Ceremony in 1968



Figure 10. A- The position of the Statute and a view from a ceremony [1], B- The first design of the Square a photo from the past [13], C- Current state (2019), D- Municipality ceremony (2020)

In total, three registered buildings exist on the streets of the working area: One on Eski Hükümet Street currently used as a hostel and two on Kızılay Cafer Türker Street one of which is currently in use and the other is under construction (Figure 11).



Figure 11. The registered building on Kızılay Cafer Türker Street, Eski Hükümet Street and restoreted old residence (2020) [14]

Eski Hükümet Street and Kızılay CaferTürker Street are the important junctions that connect the Square and the park to Bazaar Street and the coast. These streets have lost their historical characteristics over time.

3.3 Working Area Analysis

The occupancy, transportation, function, green space, and environmental analyses of the working area have been carried out (Figure 12). According to Figure 12, the position of the sun in the area, the dominant wind direction, and the direction of the scenery have been created by environmental analysis. In the function analysis, the conditions of the buildings around the working area are shown by color. In the transportation analysis, road conditions, bus stops, and ferry departure points are shown with signs. In the green-field analysis, the area and the existing green areas around it are specified. As the square is surrounded by tall structures, its connection with the sea has been severed. At the same time, the ratio between the city center and its size has lost its effect (Table 1).

The Surrounding of The Square and Muammer Aksu Park

Cumhuriyet Square, Muammer Aksoy Park and its surroundings have been discussed in general terms in the evaluation study. As a result of observations, it has been concluded that the park had lost its characteristics and it is used as a passageway. Its potential for recreational use is low and cannot be perceived since its surrounding is used as a parking lot. The mentioned area is dangerous for its users and causes visual pollution. Since the multi-storey car park is insufficient, the surrounding area of the park is filled with vehicles. Vehicle entrance to this area should be banned (Figure 13).

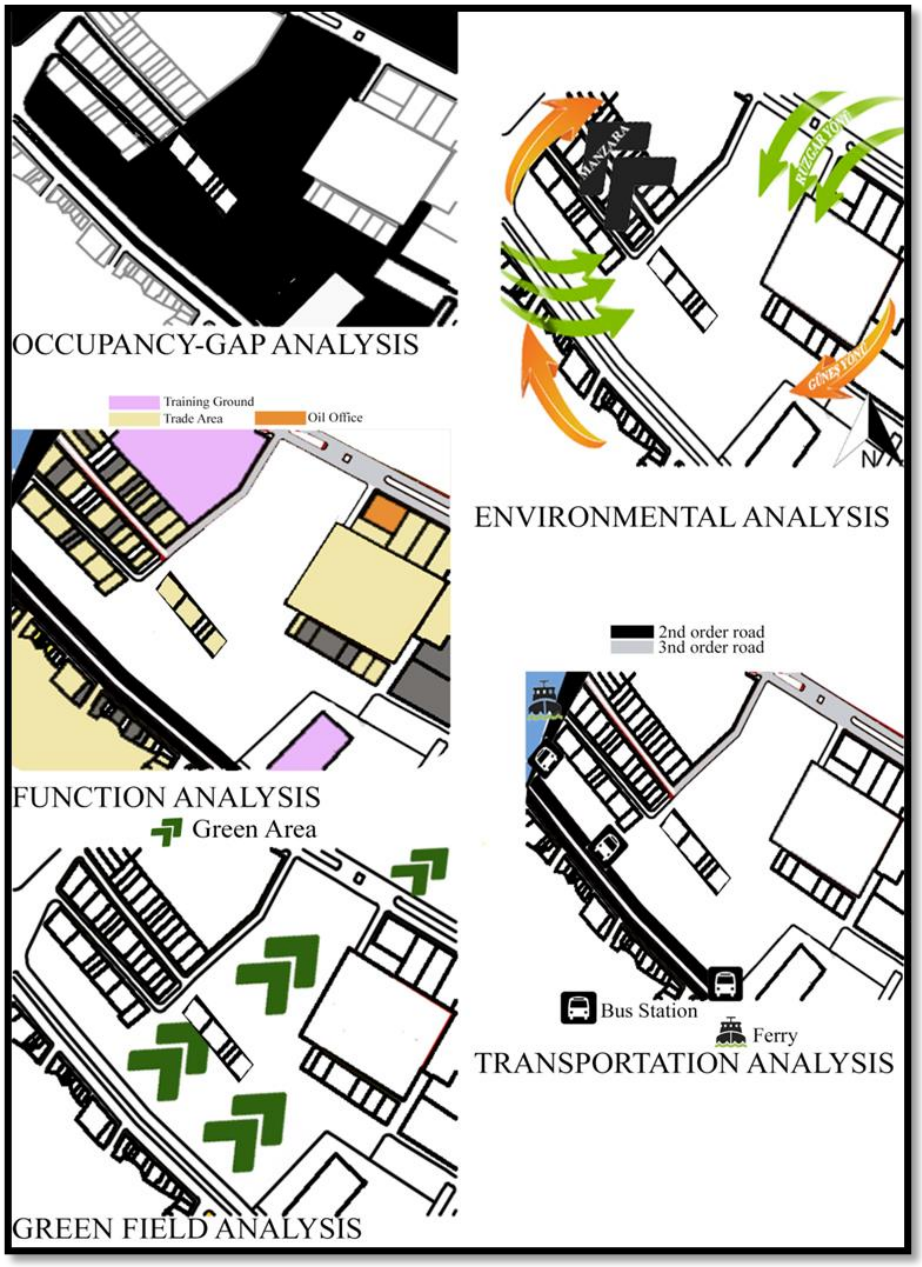


Figure 12. The analysis of the working area

Table 1. Land status and scale of square

Land Status	Scale
The elevation level is zero in the working area. The creek previously located beside the Public Garden was flowing towards the sea below this area. Therefore, the ground level of the area starts from 2 meters and the underground is risky.	The buildings around the area create a feeling of closed space. The area also loses its urban space scale. Although the area is close to the sea, due to the high-rise buildings in the direction where the scenery is dominant, the sea can't be seen. The urban furniture elements that are of the other components and plants are sufficient to preserve the spatial characteristics of the area.

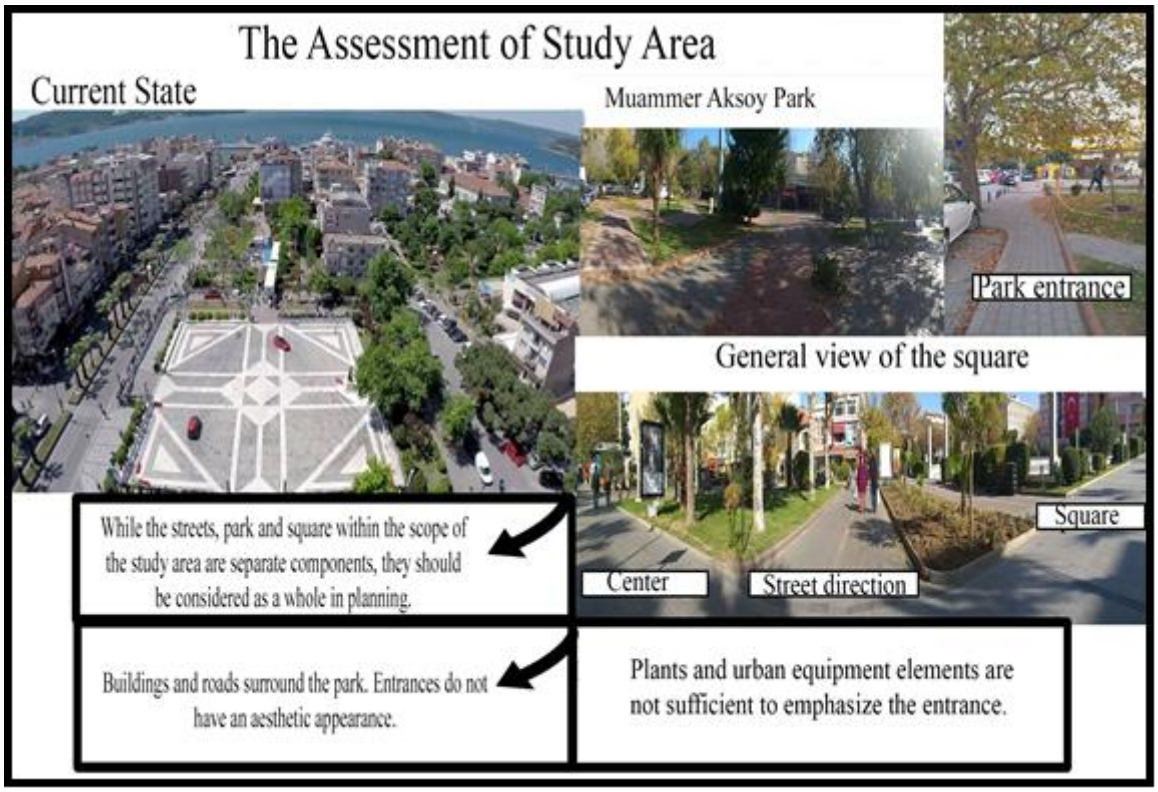


Figure 13. General evaluation of the working area (2019)

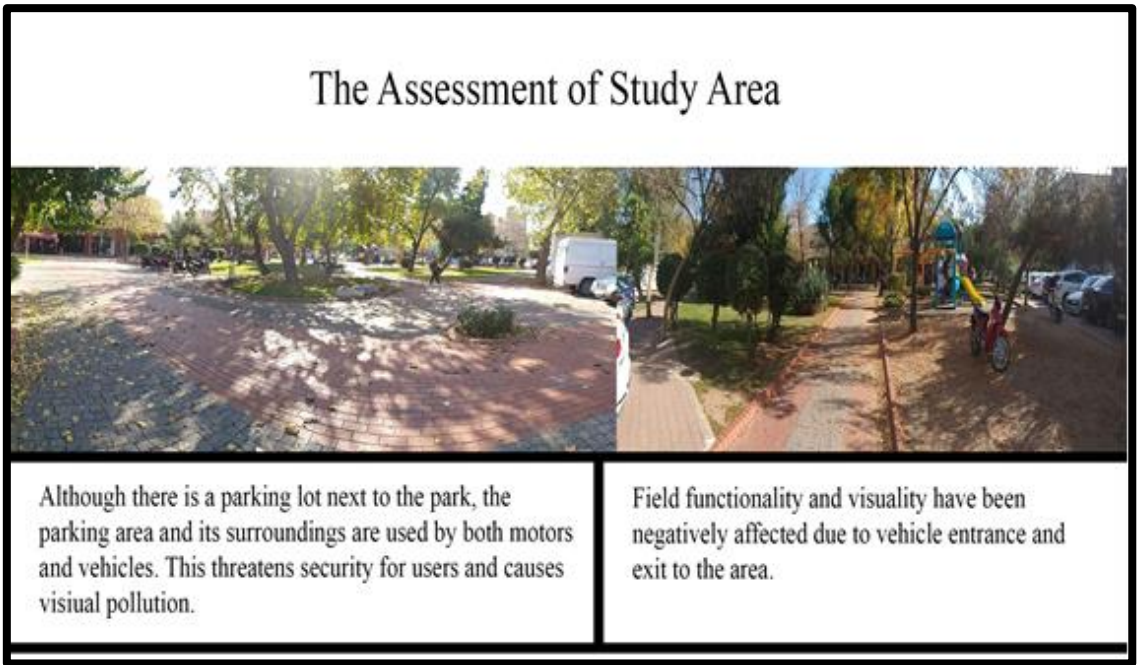


Figure 14. General evaluation of the working area (2019)

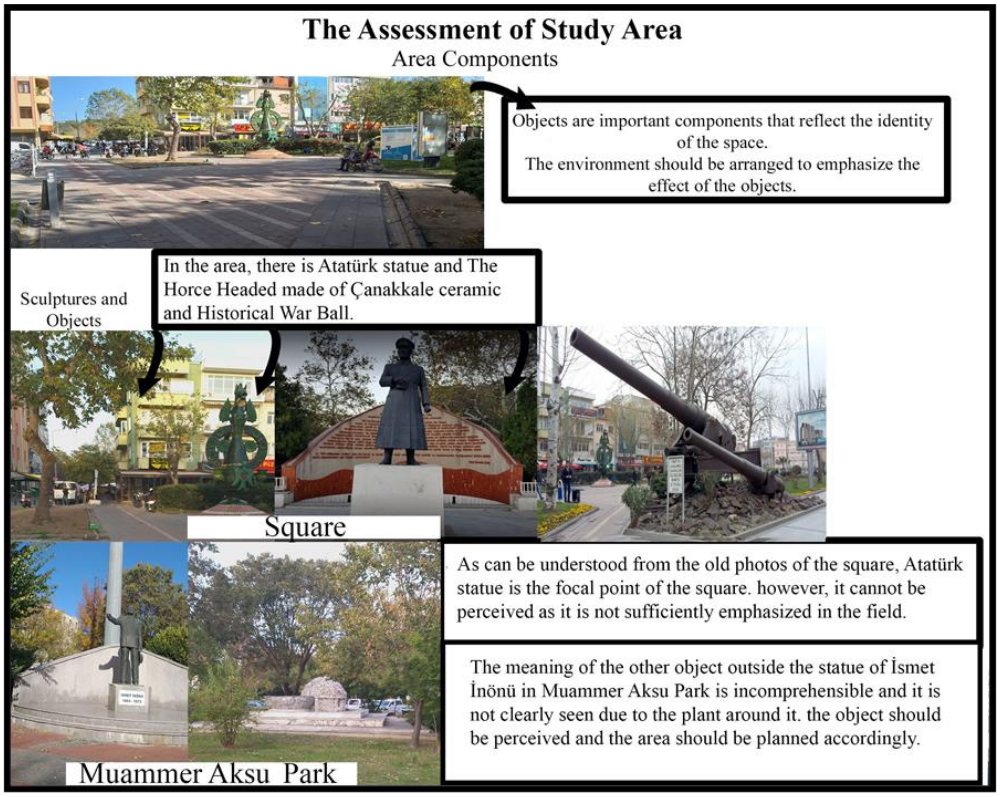


Figure 15. Component evaluation (Urban Equipment Elements), (2019), [15]

The working area requires infrastructural practices and arrangements on the physical environment. Urban Equipment Elements should be set on a standard taking all kinds of objects into consideration. Proper routes and paths for walking should be determined, and the area should be ensured to provide 4 season walking opportunities walkways. Small and local architecture compatible recreational spaces where the visitors spend time and view the scenery should be created (Figure 16).

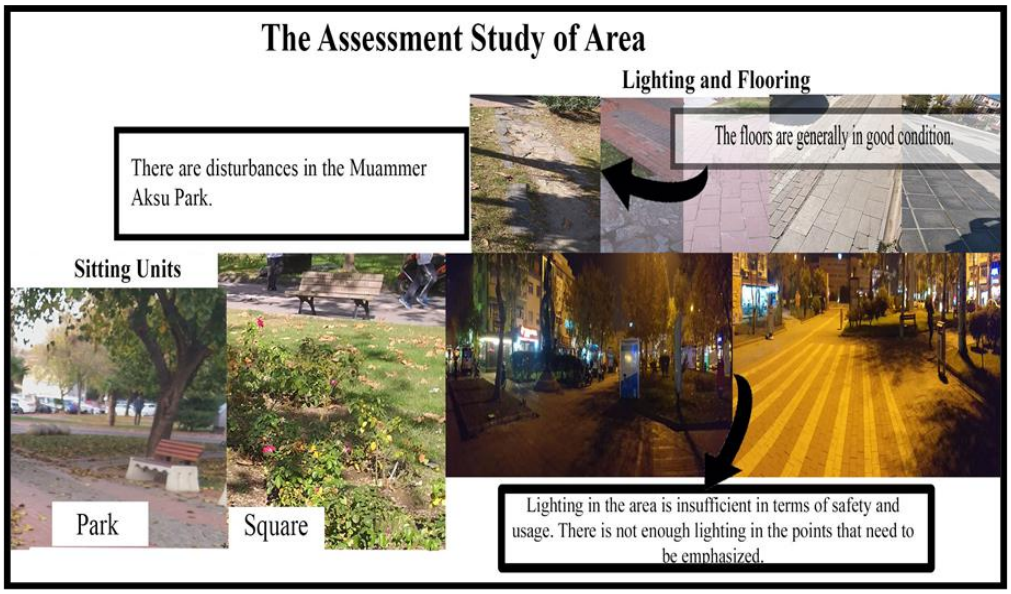


Figure. 16 Component evaluation 2 (Urban equipment elements), (2019)

The vegetative potential of the study area was examined. It can be seen in Figure 17, that the design plants in the area are insufficient.

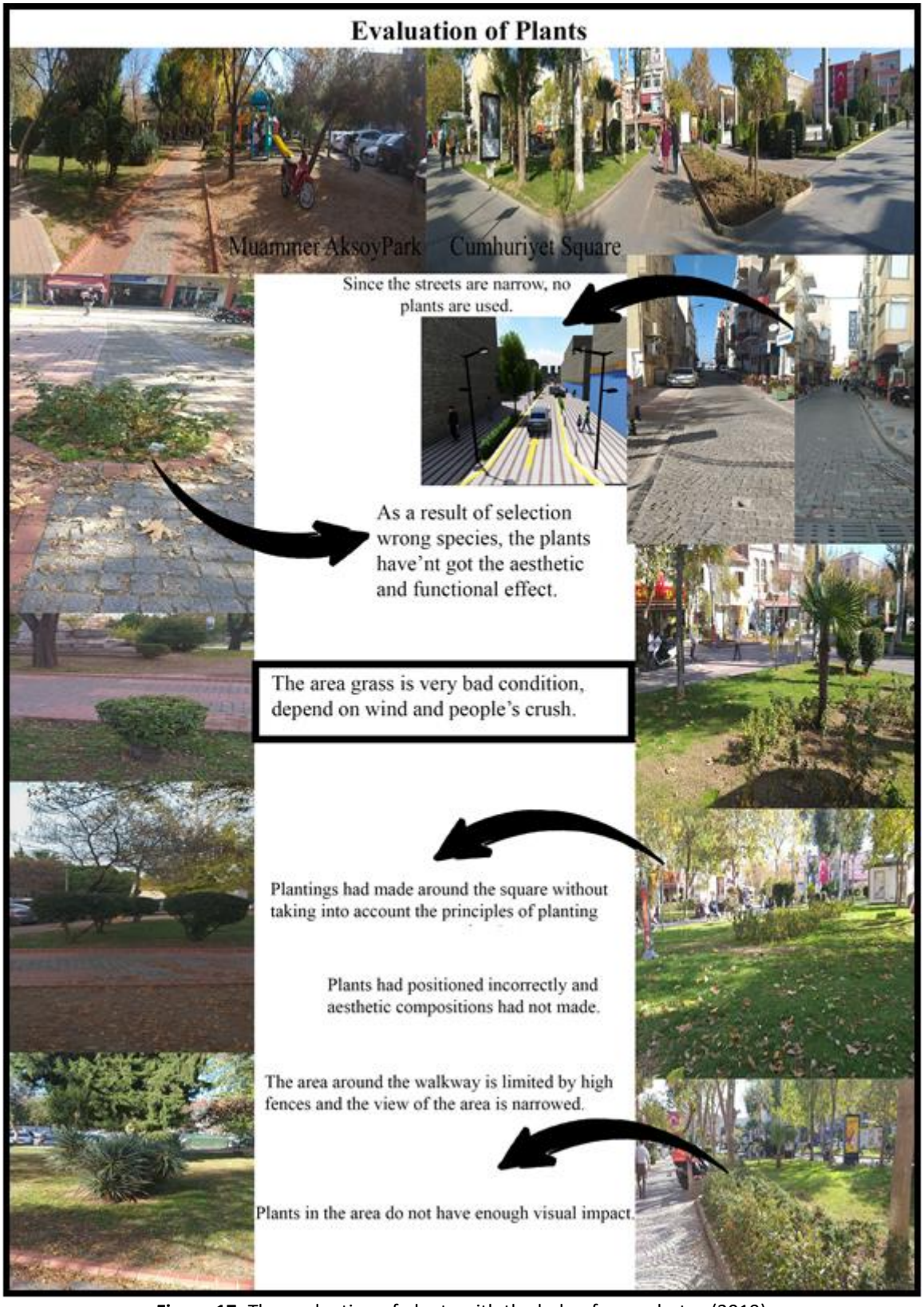


Figure 17. The evaluation of plants with the help of area photos (2019)

Aesthetic and functional evaluation of the plants used in the square and its surroundings is made in Table 2.

Table 2. Evaluation of the planting elements on the working area in terms of aesthetics and functionality

The Evaluation of Planting Elements	
Aesthetics	Functionality
Diversity-Weak	Being instructive- Weak
Emphasis-Deficient	Shading-Good
Color-Medium	Spatial perception-Medium
Harmony-Medium	Compatibility with the urban ecology-Good
Balance-Medium	Appropriate area choice-Weak

It is possible to provide attractive natural views along the road with the use of a greenbelt system. Plant-care practices such as spraying, pruning, etc. should be carried out for the plants located in the city, and those that ruin the silhouette of urban objects should be arranged and redesigned.

Urban Equipment Elements and plants should be preferred among attractive and highlighting ones that reflect the characteristics of the working area. The Square, park, and the streets should be considered and designed as a whole. Functional areas should be created to increase the use and functionality should be added with the use of Urban Equipment Elements (Figure 18).



Figure 18. Functional Urban Equipment Elements suggestions for the working area (A- Originaly 2019, B- [16])

4. CONCLUSION

Çanakkale has important resources with its location, cultural values, archaeological and historical sites, and buildings. Representing these resources in open spaces shall create an attractive and aesthetic urban identity. Since the urban square is the focus area that identifies the city, it requires an aesthetic and contemporary design approach.

Çanakkale is a city that attracts plenty of tourists every season. These tourist groups gather at Cumhuriyet Square but unfortunately, they are not able to get any information about the history and the importance of the Square. It is possible to explain the spatial history using simulations and lightings. The conditions of the surrounding buildings should be enhanced, and Street improvements should be fulfilled so that the visitors spend longer time on the Square. It is possible to promote and sell local

products in semi-open spaces. Cultural activities that shall ensure more effective social use of the area should be organized. Integration with the city can be achieved with the definition of the area and with appropriate guidance for the other uses of the surroundings. Certified historical buildings exist around the Square. These buildings can be re-functionalized by integrating them with today's economic and social life.

Cumhuriyet Square is stuck among the surrounding buildings and has lost its urban characteristics at the city scale. Some non-aesthetic residences exist in the sea direction and expropriation of these residences is necessary to expand the Square. While bringing the Square new functions, it is necessary to choose appropriate elements, colors, and vegetation so that the Square shall bear an aesthetical image. The vegetative design of the area, on the other hand, should emphasize the image of the square. Today, poplars that have completed their life span are improper trees for urban use and they cause the Square to be perceived as a closed area. In order to achieve these, authorized institutions, municipalities, universities and non-governmental organizations should necessarily take joint decisions. With the cooperation of different disciplines, the area shall gain a contemporary, functional, and aesthetic urban appearance.

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