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Research Article

REVISION PROJECT DESIGN EXAMPLE CARRYING TRACES OF MODERNISM AND CUBISM DESIGN TRENDS INFLUENCED IN LANDSCAPE ARCHITECTURE: ÇANAKKALE KEPEZ COAST

Aylin Çelik Turan[1,a]- Fatma Dila Erbil[2,b,*]- Berfin Balkan[2,c]

[1]*Çanakkale Onsekiz Mart University, Architecture and Design Faculty, Department of Landscape Architecture Çanakkale/TURKEY*

[2]*Çanakkale Onsekiz Mart University, Graduate Education Institute, Landscape Architecture Department Çanakkale/TURKEY*

**Corresponding Author:*
E-mail: fatmadilaerbil@gmail.com

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a: ORCID 0000-0002-1672-1254, b: ORCID 0009-0007-7669-0203, c: ORCID 0009-0008-9752-5845

ABSTRACT. This study focuses on a revision project design example that bears the traces of modernism and cubism design movements in the field of landscape architecture. The focal point was determined as Kepez Beach in Çanakkale province. Modernism is a design movement that emerged in the early 20th century and emphasizes functionality, simplicity and geometric arrangements. Cubism is a movement that emerged in art and architecture, especially in the early 20th century, and adopts irregular geometric forms, sharp angles and abstraction. The spatial applications of these two movements are exemplified in the revision project of Kepez Beach open green area in Çanakkale province within the framework of Landscape Architecture. While the historical texture was tried to be preserved in the design process, a contemporary appearance and usability were tried to be provided on the other hand. Thus, it was aimed to increase the user potential of Kepez Beach and to create different space uses.

Keywords: *Landscape design, modernism movement, cubism movement, Kepez-Çanakkale*

INTRODUCTION

Living spaces today, as one of the basic needs of cities, are not only physical formations but also spaces of social, cultural, and psychological interaction where people live their daily lives. The planning, design, and landscaping of public open spaces include the differentiation established by space and the evaluation of aids, as well as urban flow and livability [1]. Landscape architecture offers a design approach that provides this natural, comprehensive, aesthetic, technological, and ecological integrity. Increasingly rapid urbanization, dense construction, and climate change make planning for degrading landscapes difficult. According to Tzoulas et al. (2007) [2], green infrastructures planned for cities not only protect natural life but also increase well-being in cities by creating positive effects on human health. Similarly, freedoms specifically designed for Türkiye encourage physical activity in urban open green spaces, increase social interaction, and create user-centered displays [3]. Furthermore, planned green space use, reduction of heat and waste, expansion of rainwater management, and the maintenance of biodiversity also play a critical role [4]. Designing urban free, multifunctional, accessible and sustainable development to meet the needs of users and the market consists of formations that can only be maintained in a healthy and orderly manner for future generations.

Improving social, economic, technical, cultural, and political conditions in urban areas is a long process. In this process, open spaces act as the city's clean air corridors. Green spaces bring nature into the city and provide a wide range of ecological, social, aesthetic, and

socioeconomic benefits. Ecological benefits include climate support, water management, wind mitigation, shading, dust removal, CO2 and O2 retention, humidity maintenance, water balance, and noise reduction [5].

Landscape Architecture and Design

Design is a concept encompassing diverse fields where elements interact and feed off each other. In this environment, developments in fields such as architecture, landscape architecture, and urban design directly impact design and its criteria. Landscape, on the other hand, has evolved, changed, and transformed in its content, creating the new concept of design in landscape architecture. In this context, the common denominator in landscape design creation processes is the fundamental design principles and elements [6].

Creating a functional, aesthetically pleasing, and ecologically sustainable landscape environment is a key element in landscape design. In this context, urban landscape designs aim to establish a balanced and balanced relationship between nature and humans and to reduce the chaos that occurs with natural environments in urban areas [7]. At the same time, artistic movements in landscape design enable spaces to be handled with a more holistic approach in terms of aesthetics, functionality and culture.

In this study, the coastal area of Kepez District was examined in terms of modernism and cubism design trends, a new design proposal was brought to the area and a revised project example was presented. This revision project, designed by incorporating modernist and cubist artistic movements, has established a balanced relationship between humanity and nature (Fig. 1). The area, designed using modernist and cubist movements, aims to interpret space functionally and aesthetically within a geometric order. These movements emphasize simplicity, clarity, and formal order in urban spaces. This balances both user needs and visual integrity.

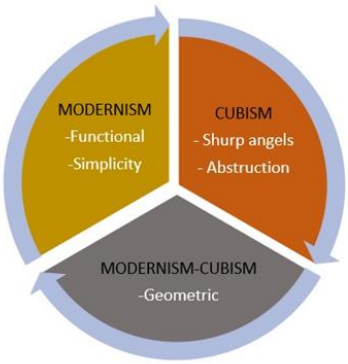


Fig. 1. *Principles of modernism and cubism, (created by authors).*

Considering the user needs and aesthetic quality of the study area, a revision project sample for the Kepez coastal landscape design is presented based on the results of a user satisfaction survey. Kepez, with its amenities, is a district heavily used by all citizens, especially for recreational purposes. In this context, the study aimed to ensure that the coastal area has a functional and aesthetic design, both structurally and vegetatively, in line with modernist and cubist design trends.

Effective Design Trends in Landscape Architecture

"Art movement" is the name given to a movement in art that offers innovations and distinctions in terms of vision, harmony, and understanding. "Design movement" is the name

given to a group of artists who share the same understanding of art and design within a specific historical period. Since prehistoric times, people who aimed to create living spaces for themselves laid the foundations of Landscape Architecture along with architecture. The act of developing and shaping the environments of the places they settled in, in line with their needs, has evolved through specific processes throughout history and has formed the concept of today's Landscape Architecture [8].

In landscape architecture, modernism and cubism played an important role in reflecting the 20th-century design approach. This is because landscape architectural design, particularly in the 18th century, was a transformative and innovative period in aesthetic and philosophical terms, with a shift from the formal garden tradition to a natural landscape approach. An examination of the works produced during that period reveals a strong aesthetic concern among artists. Landscape architectural design in the 19th century, on the other hand, reflects the work carried out to address the social needs brought about by the Industrial Revolution. In the 20th century, the modernist design movement emerged as artists gravitated toward functional, aesthetic, and functional designs. In the early 20th century, major changes took place in disciplines such as painting, sculpture, architecture and urbanism under the name of "modernism", and these changes also affected landscape design. Both movements had different approaches to landscape architecture in terms of functionality and aesthetics [8].

Modernism and Landscape Architecture

Since prehistoric times, humans have grown up centered on living spaces, using and shaping their environments according to their needs. Landscape architecture, which emerged as a concept of garden art and landscaping in the 19th century and before, underwent significant development in the 20th century. Frederick Law Olmsted's environmentalist and modernist approach to solving a significant problem in the city center prioritized the creation of urban open green spaces, thus establishing the modernism movement [9].

The 20th-century Modern Period, encompassing the years 1900-1960 and known as the Modern Era, was influenced by modernism. It was also influenced by art movements such as Art Nouveau, Fauvism, Purism, Futurism, Expressionism, Cubism, Impressionism, Symbolism, Surrealism, Constructivism, Biofrieze, Abstract Art, Social Realism, Art Deco, Dadaism, De Stijl, and Fauvism. In the early 20th century, modernist approaches emerged in art and architecture that rejected tradition and relied on originality.

These developments, which began in the 1920s, are of significant importance for contemporary landscape architecture. This process, which began with modernist transformations in landscape architecture, also constitutes the starting point of contemporary landscape architecture. In this context, contemporary landscape architecture is a concept that emerged from these processes, which rejected the traditional understanding of landscape architecture, developed under the influence of the modernist art movement, and has survived to the present day [9]. After the middle of the 19th century, public open spaces began to be defined as landscape. Therefore, the modernist art movement holds an important place in landscape architecture [10].

By utilizing developing technology in modern designs, new materials have been used, taking into account environmental factors and meeting people's needs, providing functional and spatial solutions [6]. Environmentally sensitive designs with an ecological approach have been developed, taking into account the relationship between humans and life [11].

Public awareness of green spaces in cities increased towards the end of the 20th century. Landscape architects began to use modern designs that were close to nature. The use of

modernism and cubism in design led to the development of environmentally sensitive approaches to landscape protection, increasing the importance of green spaces. Art movements are contributing to the development of new ideas and designs in landscape architecture today [10]. At the same time, while the formal characteristics of modern art movements are seen in Landscape Architecture, a more technical approach has been adopted, where environmental factors are taken into account, human needs are met, and scientific fields are used [8]. With this movement, various materials have been discovered and appropriately reflected in the designs [12]. The aim of the movement is to develop original designs and understandings, leaving traditional culture behind (Fig. 2).

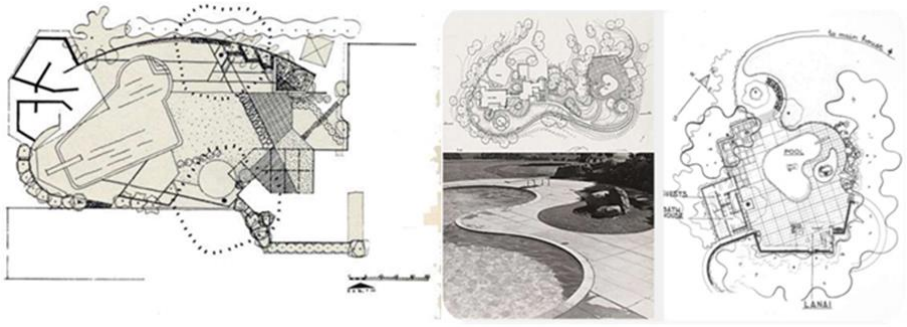


Fig. 2. *Examples of modernism designs [8].*

Modernism, the movement that emerged from the dissemination of industrialization, technological advancement, and social transformation, is a radical opposition to traditional design. Shaped by the principle of "form follows function" in architecture, this approach is also responsible for principles such as simplicity, austerity, and functionality in landscape architecture [13]. Modernist landscape design aimed to integrate natural elements with geometric patterns, addressing the natural aesthetic potential through a planning approach. In this approach, elements were minimized, and contemporary elements such as concrete, steel, and glass were emphasized.

The influence of modernism on landscape architecture is particularly evident in residential areas, university campuses, and public open spaces. This design approach is characterized by regular axes, symmetrical arrangements, and user-focused functional space design [14]. Furthermore, Le Corbusier's concept of "green space" became a cornerstone of modernist urban planning, leading to the development of designs that included extensive green belts and aimed to provide a healthy urban lifestyle [15]. Modernist approaches to design, emphasizing simplicity of form and functionality, can be observed in spaces such as Park Güell in Barcelona. Similarly, Dan Kiley, a modern architect, employed the modernist movement to create clear, geometrically and axially organized spaces in his designs (Fig 3).

Fig. 3. *Barcelona Park Güell (a) [16], Dan Kiley's Garden design in New York (b) [17].*

Cubism Movement and Its Impact on Design

Cubism is an art movement originated by Pablo Picasso and Georges Braque in the early 20th century, aiming to transfer a three-dimensional reality onto a two-dimensional surface by depicting objects from different angles simultaneously. In architecture, Cubism developed and maintained its influence before other movements such as Surrealism, Biomorphism, and Constructivism. At this point, Cubism became central to modern landscape design, incorporating other art movements [10]. This approach was reflected in the disciplines of architecture and landscape architecture over time, leading to the development of designs in which spaces were expressed with geometric forms and perspective was re-constructed [18]. Cubism, another movement that broke with tradition in landscape design, became the source of distinct structural effects, far removed from the formalism seen in the 20th century. The most important characteristic of the movement is the overlapping of system mechanisms, proportional designs, and different color combinations and tones (Fig. 4).

Fig. 4. *Examples of Cubism movement [8].*

In Cubist design practices, formal emphasis was paramount [9]. Cubist approaches are particularly evident in landscape architecture, particularly in hardscape arrangements, seating units, and planting compositions. These elements utilize multiple perspectives, transparency, and fragmented geometric forms to offer users an aesthetically distinct perception of space. For example, in examples such as the Parc de la Villette and Parc André Citroën in Paris (Fig. 5), Cubism's principles of "simultaneity" and "transparency" have enabled spatial continuity, perspective play, and the redefinition of the human-environment relationship [19].

Fig. 5. *Parc de la Villette (a) [21] and Parc André Citroën (b) [22].*

Furthermore, as defined by P. M. Condon, the "Cubist space" approach refers to spaces in which form, encoded into the solid state of void, is at the forefront in landscape design [20]. This balances both geometric order and user experience.

Modernism and Cubism represent distinct approaches to landscape design. The Modernist landscape approach prioritizes functionality over aesthetics, emphasizing clear axes, symmetrical layouts, simple planting, and open space organization. This approach was particularly recognized in the mid-20th century by figures such as Dan Kiley and Garrett Eckbo. Cubism, on the other hand, reflects multiple perspectives and geometric abstractions in the landscape, allowing space to be perceived from different angles. It is particularly evident in the sharp lines, lack of direction, and fragmented forms found in flooring and fixture layouts. The Cubist influence aims to reinterpret nature through abstraction and to add an artistic experience to the space. Both movements developed unique aesthetic approaches in landscape design, but differed in terms of formal language, user interaction, and spatial organization [23].

MATERIALS AND METHODS

Materials

Çanakkale is a province in the Marmara Region in northwestern Türkiye, covering an area of 9,933 km² (993 300 hectares) between 25° 40' - 27° 30' east longitudes and 39° 27' - 40° 45' north latitudes (Fig. 6) [24].

Fig. 6. *Location of the work area, (created by authors).*

The main material of the study, Kepez district, is the largest and most developed municipality of Çanakkale province. It is a municipality connected to the center of Çanakkale. It was established on a small hilly area 300 meters from the sea, on the İzmir road, 4 km away from Çanakkale. Kepez has a surface area of 618 hectares [25].

Kepez Municipality consists of 3 neighborhoods, namely Boğazkent Neighborhood, Cumhuriyet Neighborhood and Hamidiye Neighborhood. According to the 2022 Turkish Statistical Institute (TUIK) data, the population of the municipality is 35,390 people. Kepez Municipality is built on a hill rising from the seaside and has a coastline resembling a bridal veil [5]. While Çanakkale urban settlement is rapidly developing towards İzmir road, Kepez has also received migration every year and has rapidly transitioned from village status to municipality status. During this process, planning studies have been slow and streets and avenues have not been built in a homogeneous and clear order.

The center of the district has very tight, narrow streets. The fact that the university, state hospital and important public institutions are near the municipality has accelerated the development of the region. It has become the scene of housing estates and mass housing

settlements. It also has a long coastline with high natural potential and is a center of attraction for all citizens [5].

Geographic coordinate information is 40°6'22.632" N 26°23'55.923" E, Cartesian coordinate information is RIGHT (Y) = 448746.49 m - UP (X) = 4441503.85 m. Projection information is ITRF96, Transverse Mercator (TM), Slice Width=3°, D.O.M=27°. A total area of 7,178 m² is currently used as a parking area [26].

The study area is within the scope of the 2nd and 3rd Degree Archaeological Site [26]. Therefore, all existing plants were preserved and the planting design was developed. Excavation work cannot be carried out within the scope of the 2nd and 3rd Degree Archaeological Site. Therefore, the infrastructure will be preserved and landscaping will be carried out for the area (Fig. 7).

Fig. 7. *Kepez district border [26].*

Methods

In the study method, firstly the effective design trends in landscape architecture were taken into consideration and literature review was conducted on the importance of urban areas in design, design principles and the use of equipment elements. In order to keep people in touch with nature as a whole, a revision project design was created thanks to modernism and cubism design trends (Fig. 8).

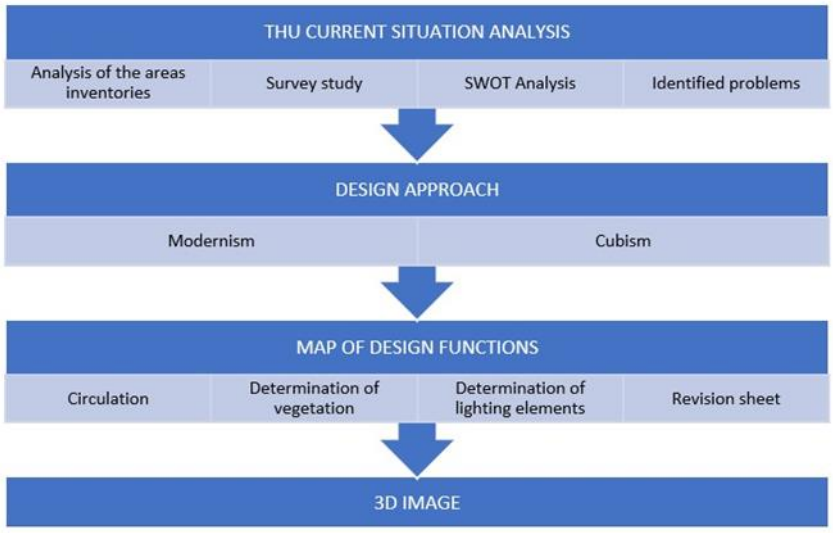


***Fig. 8**. Methodology of study, (created by authors).*

The area was examined on site and photographed and the study method was structured as follows:

1- Analysis of the area's inventories (The number and locations of existing plants in the area were determined and photographed through on-site inspections. At the same time, the circulation line and reinforcement elements in the area were examined, their number and condition were determined and photographed.) Problems were identified through on-site inspections.

2- Survey study (The environmental relationship of the area was examined and an infrastructure review was carried out to create a sustainable design. The design was dimensioned using climate data).

3- Sustainable design is achieved through SWOT analysis, observation, and survey data. Design requirements were determined based on the results of surveys conducted with the user base in the area.

4- The identified problems and needs were associated with the area and solutions were produced by creating usage areas according to the survey results in the form of a point plan.

5-In line with modernism and cubism design trends, a sustainable revision design project scenario focused on humans and nature was created and functions (circulation) were determined. (These functions are explained in detail in the findings section).

6-Creating a preliminary (reinforcement) project in the design title in line with the created scenario.

7-Preparing a suitable plant sheet in line with the existing plants. Based on the infrastructure survey conducted at the site, existing plants were preserved as is due to its designation as a second-degree archaeological site. The revised plant map was shaped according to design functions (this plant map is explained in detail in the findings section).

8-Preparing a revision sheet for existing lighting elements. As a result of day and night inspections in the area and survey responses to the user base, it was determined that the lighting elements were inadequate.

9-Drawing the area project including all uses, functions, preliminary and plant elements to be included in the area and the revision sheets of the lighting elements in AutoCad 2024 program.

10-Presenting 3D visuals in Lumion 2024 program to ensure the readability of the project and to explain the visual details.

Findings

The study area was examined and visualized on site and current uses were determined on the area map (Fig. 9).

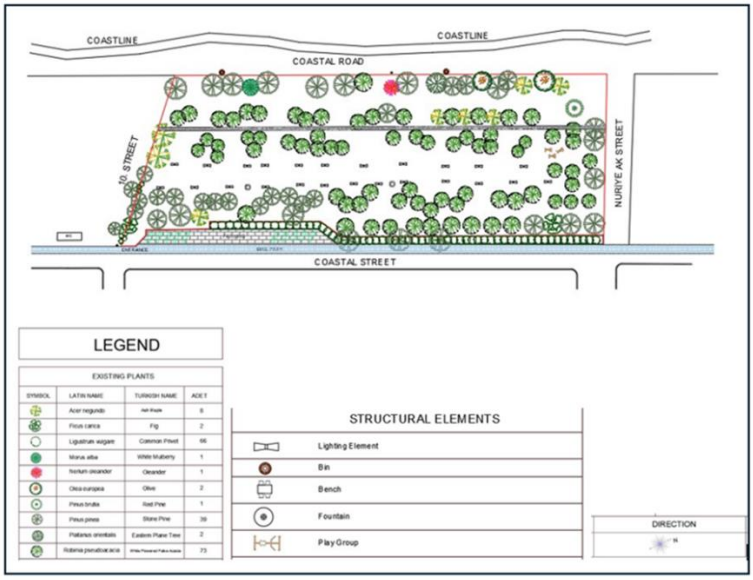


Fig. 9. *Field inventory, (created by authors).*

The study area with sandy-clay soil structure is located next to the coast. The area is under effective wind with the cold wind blowing from the northeast, the north wind, and the south-west wind coming from the southwest. The size of the crown diameters of the plants in the area affects the sunbathing area (Fig. 10). Since the study area is located between Sahil Street and Nuriye Ak Streets, it is important in terms of the presence of a noise zone.

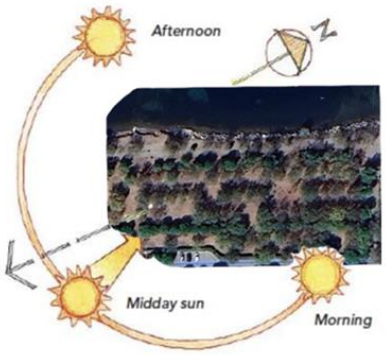


Fig. 10. *Sunbathing area map, (created by authors).*

The structural reinforcements in the area were examined on site and their current status was determined. There are a total of 22 medium-sized lighting elements, a water fountain at the entrance of the area and a total of 2 fountains in the middle and a dirt road with a maximum width of 100 centimeters along the main axis (Fig. 11). Due to intensive use, 5 sports equipment in the area are worn out (Fig. 12).

Fig. 11. *Water charity, dirt road and lighting elements in the area, (original photo).*

Fig. 12. *Sports equipment found in the area, (original photo).*

The plant material found in the area was examined on site and species identification was made. It was evaluated in terms of suitability for use in landscape designs. In the evaluations made, whether the plants were planted in accordance with the usage areas in the area, the shapes they could take in the future and their genetic characteristics were taken into consideration. It was determined that the existing planting in the area was used for functional shading purposes rather than aesthetic design.

Robinia pseudoacacia (White Flowered False Acacia) with its beautiful white flowers has increased the aesthetic and visual effect of the area. Acer negundo (Ash Maple), which is resistant to polluted air conditions and is mostly used in urban afforestation, has grown well in the sandy-clay soil of the area and is visually compatible with other plants (Fig. 13).

Fig. 13. *Robinia pseudoacacia (White-Flowered False Acacia) and Acer negundo (Ash-leaved Maple), (original photo).*

Pinus pinea (Stone Pine), which has a round structure when young and a scattered umbrella-like structure when old, with a tall and regular upright trunk and a bright light green colored needle-leaf structure, meets the shade needs of the area. Pinus brutia (Red Pine), which is 20-25 meters tall and pyramidal in appearance but has a wide crown as it ages and whose new shoots become reddish in color, is an important forest tree in the area (Fig. 14).

Fig. 14. *Pinus pinea (Stone Pine) and Pinus brutia (Red Pine), (original photo).*

Nerium oleander (Oleander), a shrub or small tree that blooms in white, pink, red, yellow and cream colors between June and September, grows well in stream beds and watersides, and is grown as the most drought-resistant ornamental and landscape plant, was used in the design for color and emphasis. Olea europaea (Olive Tree), an evergreen tree with dense branches, a broad top and evergreen leaves, native to the Mediterranean, Europe, Asia and Africa, was used as a solitary plant (Fig. 15).

Fig. 15. *Nerium oleander (Oleander) and Olea europaea (Olive Tree), (original photo).*

Since the maintenance and pruning of the existing trees and bushes in the area were not done regularly, some plants could not develop due to not receiving enough sunlight. In terms of urban green area design, it is expected that the plants will attract attention in every season with their different shapes, textures and colors. However, the area has a low aesthetic effect, monotonous and gloomy appearance. As a result of the on-site examinations of the area, it was determined that the biggest problem was that the excessive amount of weeds on the ground continued to grow and turned the area into a bad and unaesthetic appearance. At the same time, the lack of seating equipment is at the forefront. The haphazard location of the

existing plants makes the area look gloomier. Particularly during the nighttime inspection, it was observed that users were unable to use the area comfortably and freely due to insufficient light. This negative situation was also discreetly expressed by users during the survey (Fig. 16). At this point, it is envisaged to make the most suitable design for the area.

Fig. 16. *Night view of the area, (original photo).*

The general condition of the existing area plants is at a qualified level. The coastal walking path is the most neglected area. When we examine the functions around the study area; there are public toilets, neglected green areas, residences and a municipality cafe. All analyzes provide an examination of the area in terms of landscape design and provide data for the positioning of the uses to be included in the design. In the study, a SWOT analysis of the area was conducted to help carry out the design processes and evaluate the current situation. Strengths and weaknesses, opportunities and threats were determined and the directions in which the design was created were determined (Table 1).

Table 1. SWOT analysis of the study area in terms of design (created by authors).

SWOT ANALYSIS			
Strengths	**Weaknesses**	**Opportunities**	**Threats**
Ease of accessibility	Inadequate maintenance of recreational areas	Highly increasing the green area potential of the city	Deterioration of the area floor and flooring
Providing opportunities for different outdoor activities	Lack of maintenance, inadequacy and deficiency of existing equipment in the area	Having different routes for transportation	Intense amount of noise
Ensuring socialization of individuals from different age groups and profiles	Inadequacy of night lighting elements	Presence of crowds from different profiles using the area intensively throughout the day	Not enough reinforcement material
Proximity to the market place			The unqualified, unkempt and unaesthetic appearance of the plant area
Located on the coastal coastline			

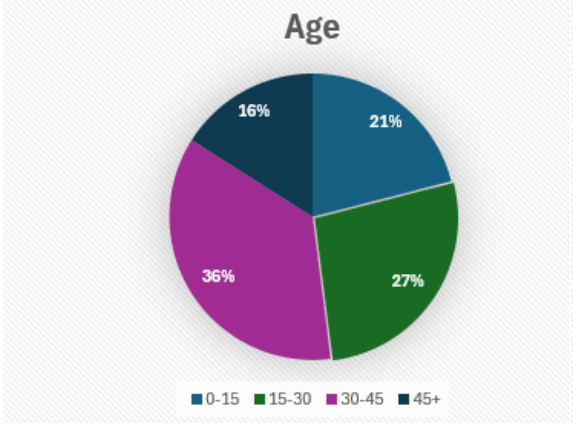
As a result of the SWOT analysis, the park's location on the coast, the socialization of individuals from different age groups and the area's accessible location are its strengths. The

lack of maintenance, inadequacy, and deficiency of the existing equipment in the area and the inadequacy of maintenance carried out in seasonal periods are its weaknesses. The opportunities of the area are that it meets the green area needs of the city dwellers by being used intensively throughout the day and that there are different road routes to the area in terms of transportation. The ground disorder of the area, the lack of lighting elements at night, the intense noise and the neglected, unaesthetic appearance of the plant area are its threats.

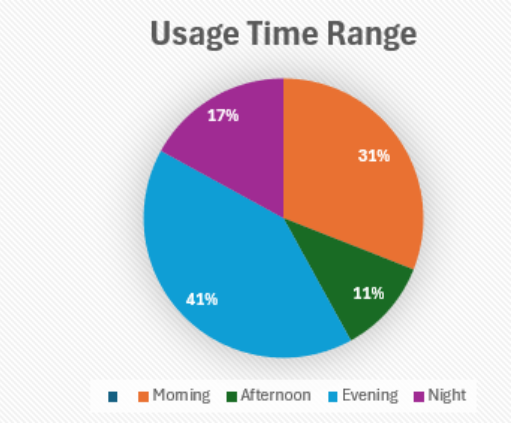
Survey Results

In order to determine the opinions and expectations of the public in the study area, 120 surveys consisting of 5 questions (Table 2) were applied to user groups of various ages.

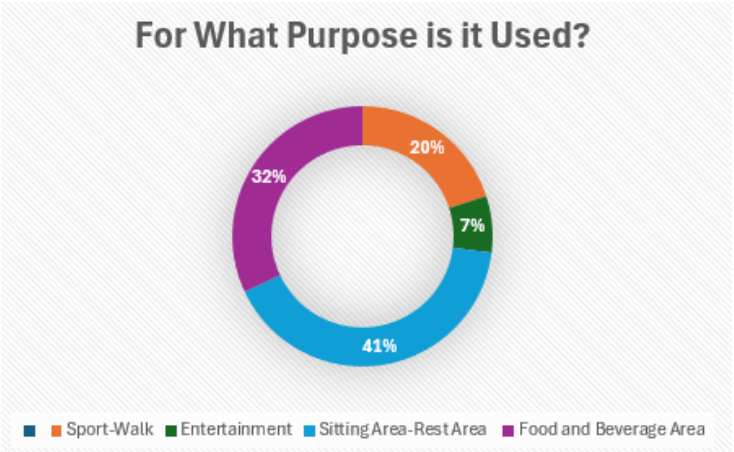
Table 2. User age group range and usage time range.



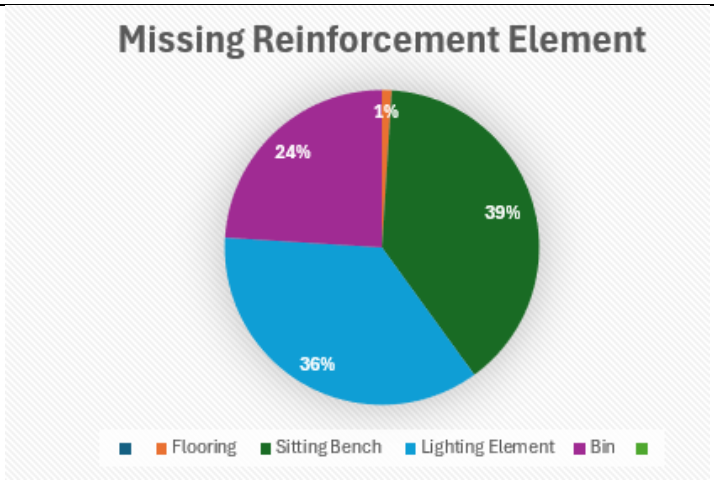
a. Distribution of users by age groups



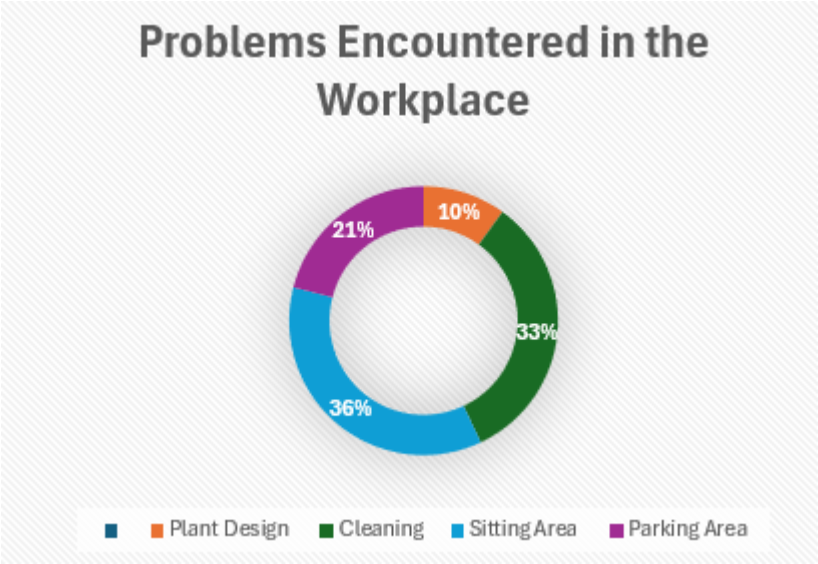
b. Temporal use of the park



c. Distribution of usage of function areas.



d. Distribution of missing reinforcement elements according to users.



e. Parking problems according to user satisfaction.

Function Area Analysis

As a result of the examinations made in the field and the responses given to the criteria directed to the user group, certain problems, deficiencies and requests were determined. A revision project design was created according to the obtained data. The design was shaped by taking into account the user requests in the survey results.

According to the survey results, the most common seating areas and equipment in the area are. A total of 1000 m² recreational area has been designed in the revision project design area that will include the effect of the modernism movement. The user group uses the area for sports and picnics in the morning hours. A comfortable and functional area has been created for the users with the picnic area that will consist of 1000 m². At the same time, the general axis of the circulation has been designed in the material to be used in walking and running activities. The square that will consist of a total of 600 m² is the focal point of the circulation intersection in the design criteria of the area. The entrance and exit points have been designed linearly. As a result of the data obtained in the age group criteria made for the area, a total of 300 m² children's activity area has been designed under the influence of cubist

design in the area, with the rate of the user group between the ages of 0-15 being 21%. A total of 300 m² of parking area has been determined in line with the data that the transportation provided to the area is provided by motorcycles and bicycles with a rate of 27%.

Design Sheet Scenario

The first step in creating a revision design scenario for the project area of Kepez Coast in Çanakkale province was to conduct an area survey and determine the locations and numbers of existing facilities and plants. Then, a survey project was prepared for the area and an appropriate and functional design was sought in line with the data obtained. The revision project area was determined to be a 2nd and 3rd Degree Archaeological Site. Therefore, the protection plan had restrictive reflections on the design.

As a result of the study starting with a literature review, design trends were examined. A design application was made to the revision project area in line with the appropriate functional and design where modernism and cubism trends meet at the optimum point. In the design to be applied to the area within the scope of the Leke Project, the locations of the area uses were determined as areal size.

After all the detailed information about the area was researched and obtained, the design scenario was created with the decision to protect the existing plants. At this stage, the main circulation was designed in line with the answers given to the questions in the survey. In particular, since the users could not use the ground of the area while doing sports, informal design was applied and usability was increased.

Since the revision project area is a 2nd and 3rd Degree Archaeological Site, all plants in the area were protected and an appropriate plant design was made. The plant design created a calm and modern effect with the abundance of plant density and flowering plants in the area. All equipment elements (lighting, benches, trash cans, etc.) were positioned at appropriate points and in appropriate numbers in the design flow.

At the final stage of the design of the area, a 3D drawing was made in the SketchUp 2024 program, and 3D images were provided with the Lumion 2024 program to ensure the readability of the project and to explain the visual details.

Preliminary (Reinforcement) Sheet

In the revision project design for the area, a design was developed in line with the needs in order to eliminate the deficiencies as a result of the surveys conducted in the preliminary project and to design a more functional area for the users. The existing entrances belonging to the area were preserved. A total of 200 m² seating area was designed with a wooden pergola with seating elements and an ornamental pool, which would create a sense of comfort for the user, with a modern effect along the main axis leading to the coastline. The second seating area was designed completely parallel to the coastline to create a visual view. In this area, the seating element is divided into three triangular zones, allowing different numbers of users to use it at the same time. The area covers a total of 100 m² with a plant buffer, ornamental pool, and modern seating element. As a result of the surveys conducted, the project area consists of 21% of the user group aged 0-15. The existing sports equipment is not maintained and is not suitable for use. It is very important for the physical and mental development of the child user group to provide activities in the area with safer and different designs. The floor material of the children's activity area was determined as EPDM rubber flooring considering their safety. The children's seating element, consisting of different sizes

and colors, was designed under the influence of the cubist movement. The area, consisting of a sandpit, seating element and various play equipment, is a total of 300 m² (Fig. 17).

Fig. 17. *Children's activity area, (created by authors).*

Apart from the ground covering determined in the area, the floor consisting of glass surface, the seating area with a different formal structure is the focal point of the area with a total of 150 m² thanks to the use of both an ornamental pool and various visually effective plants. The seating elements have a different modern design in this area. By providing a transition effect in the circulation where the plant density is high, it directs the users to the picnic area. A pergola effect was given with a modern hanging-tension system. The area is surrounded by fragrant plants. The picnic area with a total area of 1100 m² was designed according to the need as a result of the survey study. The facilities with simplicity and minimalist effects in accordance with the modernism movement provide an aesthetic appearance to the area. It ensures that the user group spends time comfortably with 9 hanging-tension seating systems. When the motorcycle-bicycle parking area is evaluated based on the criteria, it is seen as a need. The total 100 m² parking area consists of asphalt floor covering with a capacity of 24 units. 2 different types of garbage bins were used in the project area. There are a total of 6 recycling bins, including those at the entrances, in the children's activity area and in the picnic area where the user base is dense. A total of 23 round type waste bins are designed as wooden models (1st class pine impregnated) that match the design with their aesthetic appearance (Fig. 18).

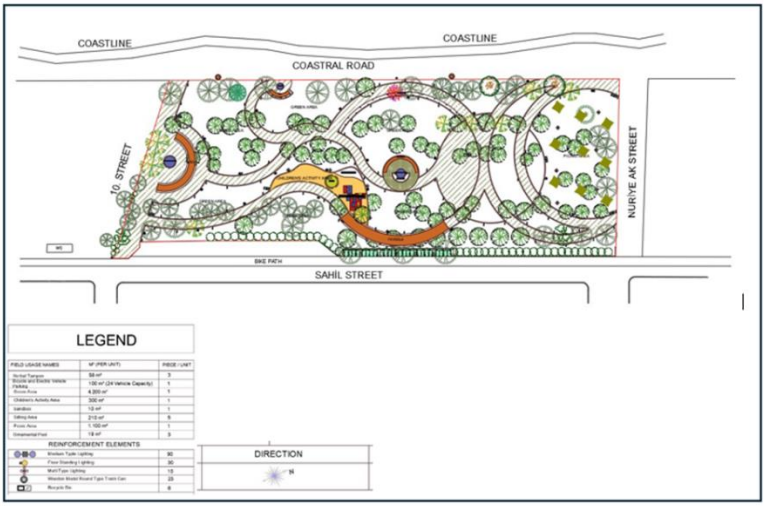


Fig. 18. *Preliminary project of the revision project area, (created by authors).*

Herbal Sheet

While the appropriate plant design was made in line with the existing plants in the project area, a design parallel to the preliminary project was also made. All existing plants in the area were preserved. In line with the design, visually effective plant beds were designed in the seating areas using Yucca filamentosa and Lavandula angustifolia shrubs.

The children's activity area was composed of plants that do not pose any harm with their fruits or flowers. An informal design suitable for the area was made with Malus floribunda, Ligustrum japonicum, Lagerstromia indica plants (Fig. 19).

Fig. 19. *Plant composition of children's activity area, (created by authors).*

In the ornamental pools, an aesthetic design was achieved by using visually effective Viburnum tinus and Rosa sultane. In the sitting areas, Jacaranda mimosifolia was used for shading purposes and a composition parallel to the area was achieved with Viburnum tinus and Yucca filamentosa. An informal design was applied with Juniperus squamata ‘blue’ and Lonicera caprifolium plants as plant parterres along the coastal road circulation. Salix babylonica and Catalpa bignonioides deciduous plants were used solitarily in the picnic area to provide a shading effect. In the design created by using Tamarix tetrandra and Chamaerops excelsa plants on the axis extending from the main entrance to the coastal road, it was aimed to leave an effect towards the beach on the users. In the planting design, Cupressus macrocarpa plant, which was used as a coniferous plant close to the children's activity area, was used as a group in order to reduce the noise level. Euonymus japonica ‘aurea’ was used as a border plant in the area. In the picnic area, a suitable composition was made with Veronica hederifolia plant with visual effect as ground cover and Festuca glauca plants as grass in a certain area of the area ground. In certain areas of the circulation line, a visual composition was created and bush-formed Syringa vulgaris and Buddleja davidii plants were used (Figure 20).

Fig. 20. *Herbal project, (created by authors).*

Lighting Sheet

The inadequacy of existing lighting fixtures, highlighted by users as a negative feature of the area, was identified during the site inspection and survey interviews, particularly at night. This inadequacy stems from the limited number of lighting fixtures in the area and the low voltage illumination of the restricted field of view. The effectiveness of its elements, particularly in ensuring user safety, serves as a role model in the design. The use of three different types of lighting elements will significantly increase the usability of the area. A total of 90 3-meter-long, medium-sized lighting elements are installed in a cascading system throughout the project area. A total of 30 ground-type lighting elements are used in the plant buffers in the seating areas. A total of 10 multi-type lighting elements are used in the children's activity area and picnic area.

3D Visuals

The presence of functional entrances and exits on the axis of the bird's eye view visual of the design, obtained from informal lines, shows the characteristics of the modernism movement throughout the project area (Fig. 21).

Fig. 21. *Bird's eye view of the revision project, south and north facades, (created by authors).*

Children's play elements were designed with the understanding of the cubism design movement. The relationship between children and the area was strengthened with the emphasis of contrasting colors and different movements. Sustainable materials were used in the area for the safety and health of children (Fig. 22).

Fig. 22. *Children's activity area, (created by authors).*

The features of the seating area designed under the influence of the modernism movement are that the floor covering is made of glass and the seating element is made of sustainable wood material (Fig.23 and 24).

Fig. 23. *Seating area designed with sustainable materials, (created by authors).*

Fig. 24. *Seating areas designed with sustainable wood materials, (created by authors).*

The square, which is the focal point of circulation in the area, has been designed with innovative industrial products rather than traditional flooring. The area, which is determined as the target point of the user group, has been designed under the influence of modernism with its aesthetic and functional features (Figure 25).

Fig. 25. *Square design, (created by authors).*

The functional use of the material of the suspension-tension system used in the picnic area reflects the modernism movement, and its square shape reflects the cubism movement (Fig. 26).

Fig. 26. *Picnic area design, (created by authors).*

CONCLUSION

This study focuses on a revision project design example that bears the traces of modernism and cubism movements in landscape architecture. The landscape arrangement of Kepez Coast of Çanakkale province was handled with an approach that reflects the effects of modernism and cubism movements, and a revision project was created using the original elements of these movements in the spatial arrangement. As a result of the observations and examinations made in the study area and the SWOT analysis obtained as a result of the survey results, the users' need for a nature and life-oriented sustainable recreational area was redesigned.

As a result of this study, important findings have been obtained regarding the contributions of modernism and cubism movements to landscape design. The revision

project implemented in Kepez Beach draws attention with the inclusion of cubism elements such as geometric forms, sharp lines and abstract forms in the spatial arrangement. At the same time, the basic principles of modernism, functionality, minimalist approach and use of natural materials were also at the center of the design. With the combination of these elements, a balance of aesthetics and functionality was achieved in Kepez Beach, user experience was improved and spatial identity was strengthened. The functional design, featuring sharp, limited, and quantitative qualities, features a dimensional geometric children's seating and resting element with accentuating contrasting colors, designed with a focus on Cubism (Figure 17, 19 and 22). The main axis of the design area, extending to all functional areas, provides the user with functionality. The natural materials of glass and wood used in the seating, flooring, and fittings reflect the modernist art movement (Figure 21, 23, 24 and 26). The picnic area's design, however, is minimalist, with a focus on function and emphasizes the modernist art movement by integrating natural life with humans. Because the seating and picnic areas, including the general circulation line, are designed under the influence of Modernism, and the children's play area is designed under the influence of Cubism, the entire workspace achieves a balance between aesthetics and functionality focused on user needs.

Although modern landscape design facilitates spatial circulation through clear lines and order, it is sometimes criticized for creating rigid, monotonous spaces when user-centered. Similarly, while cubist approaches offer a unified understanding of aesthetics and originality, they can create clutter when viewed through multiple windows, leading to spatial perception problems. Public recreational spaces, particularly those in the workplace, when designed with abstract approaches that disregard user habits, become unsustainable spaces that negatively impact user satisfaction. Therefore, despite the unique and aesthetic contributions of both movements, their implementation in landscape design without consideration of local needs and user experience can lead to spatial failures.

However, more emphasis should be placed on the feasibility and sustainability of the revision project resulting from this study. In particular, it is important to examine and evaluate in detail the factors such as cost-effectiveness, maintenance requirements and environmental impacts of the project.

In conclusion, this study has highlighted the potential of revision projects that bear the traces of modernist and cubist design movements in landscape architecture and has provided a perspective on how public spaces such as Kepez Beach can be improved in terms of aesthetics and functionality. Future studies can continue to investigate how these methods and approaches can be applied on a larger scale and provide creative solutions in landscape design.

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