



A CREATIVE VIEW OF ENVIRONMENTAL CAFE DESIGN: TRABZON SOFIA GARDEN

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Received Date: 15.08.2022. Accepted Date: 01.10.2022

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Abstract

In the 3rd Semester "Environmental Design 3" compulsory course of the KTU Landscape Architecture Department, the students were given the landscape design project of Sofia Garden Café and its surroundings. Area is located in the Hagia Sophia museum development area within the border of Fatih Mahallesi in Ortahisar district of Trabzon province. The main aim is to prepare a landscape design project for the "Sofia Garden Cafe and its surroundings", which is located in the development area of the Hagia Sophia museum, in an integrity that will meet the needs of both cafe users and city users. This study was carried out by specifically Assoc. Prof. Dr. Tuğba Düzenli- Lect. Aslı Gözde Gel group. In addition to these purposes, a fictional approach on geometric fragmentation was adopted in the Düzenli-Gel workshop and designs were developed in this direction. In this study, environmental design 3 project processes and their result products were examined in terms of geometrical formation and creativity.

Keywords: Landscape design, geometric formation, creativity

CAFE ÇEVRE TASARIMINA YARATICI BİR BAKIŞ: TRABZON SOFIA GARDEN

Özet

KTÜ Peyzaj Mimarlığı Bölümü 3. Yarıyıl "Çevre Tasarım 3" zorunlu dersinde öğrencilere, konu olarak Trabzon ili Ortahisar ilçesi Fatih Mahallesi sınıırı içindeki Ayasofya müzesi gelişme alanında yer alan Sofia Garden Kafe ve yakın çevresinin peyzaj tasarım projesi verilmiştir. Ayasofya müzesinin gelişme alanı içerisinde yer alan "Sofia Garden Kafe ve yakın çevresinin" hem kafe kullanıcılarının hem de kent kullanıcısının ihtiyaçlarını karşılayacak bir bütünlük içerisinde peyzaj tasarım projesinin hazırlanması ana amaçtır. Bu çalışma Doç. Dr. Tuğba Düzenli- Öğr. Gör. Aslı Gözde Gel grubu özelinde yapılmıştır. Düzenli-Gel atölyesinde bu amaçlara ek olarak geometrik parçalanma üzerine kurgusal bir yaklaşım benimsenmiş ve tasarımlar bu doğrultuda geliştirilmiştir. Bu çalışmada, çevre tasarım 3 proje süreci ve sonuç ürünleri geometrik biçimlenme ve yaratıcılık açısından incelenmiştir.

Anahtar Kelimeler: Peyzaj tasarım, geometrik biçimlenme, yaratıcılık

1.INTRODUCTION

It is an inevitable necessity for today's designer to be creative in every field, level and point of design. Creativity is defined as the process of "introducing something new and unusual". During this process, thought processes and personality traits such as following a different path, going out of the stereotypes, not being afraid to find the unknown, seeing different points in the relations between ideas, being open to innovations are emphasized (Öncü, 2003; Özkan et al., 2016; Düzenli et al., 2017a). Ghiselin (1955) expresses the creative process as



the creative stage and describes this stage as the transformations in the development of change in a subjective life (Acted by O'Neill ce Shallcross, 1994). Basically, creativity is a design process that occurs with the cognitive mechanisms that emerge between a designer and the product. Designing is an effort to reach a non-existent by associating beings with each other; the non-existent that is achieved as a result of this effort is a design that includes creativity (Öztürk, 2007; Duzenli et al., 2017b, Duzenli et al., 2017c).

There are many different definitions and approaches to the concept of design. According to many researchers, design is a problem-solving process, according to some researchers it is a decision-making process, and according to others, it is a trial-and-error process. But in its most basic definition, designing is a plan or something that is visualized by creating a plan or sketch in mind, shaping or producing (Önal, 2011, Duzenli et al., 2018a, Duzenli et al., 2018b). It is a mental project or scheme in which the steps that prepare a result are revealed (Bayazıt, 1994). The work of the designer; It is an act of thinking, sharing the products it has revealed with other people, and reaching the desired points of the design it has made by conveying its product to humanity. Design; When it is considered as problem identification and solving, it appears as an act of thinking. The creativity activity that emerges in the design process also has a cognitive structure. As Smith et al. (1995) stated; creativity includes the stages of producing and discovering within the framework of the individual's mental activities. And this process is also intuitive thinking. This creation process, which is based on production and discovery; production of the preliminary creative structure, preliminary creative discovery and interpretation, production of creative thinking, creative discovery and interpretation, and product development. Design has been expressed with various definitions such as “deciding within uncertainties” (Asimow, 1962), “reducing diversity” (Best, 1969), “finding the right physical components of a physical structure” (Alexander, 1964). In its most basic definition, Bayazıt (1994) said that designing is a plan or something that is visualized, formed or produced in the mind to make a plan or sketch (Önal, 2011; Duzenli and Alpak, 2016; Alpak et al., 2017; Duzenli and Alpak, 2020).

At the end of the design process, it is expected that the best solution to the determined problem will be produced and creative and original designs will be created. For this, people who can think creatively, integrate creativity with analytical thinking, innovate, solve problems, should be trained in educational institutions. According to Öztürk (2010), design education is an unknown in need of design. For this reason, determining the path to be followed by the designer at the beginning of the design process points to a very important point, what kind of thinking style and which method to start with (Melikoğlu Eke, 2015).

Landscape architecture education is also defined as decision making, land shaping, level analysis, arrangement of space-reinforcements and organizing human activities (Rodiek and Steiner, 1998; Yılmaz et al., 2020) and it is a versatile profession that incorporates concepts from different disciplines. Therefore, it is necessary to integrate different systems and components into each other in education. In creating creative design products, the geometric fragmentation approach can be included in the design process, and it can be ensured that students overcome the difficulties they experience in transforming their ideas into form.

For this reason, in the 3rd Semester "Environmental Design and Project 3" course in Karadeniz Technical University (KTU) Landscape Architecture Department, around the restaurant, it is taught how to integrate the concept of geometric fragmentation, which is a guiding and inspirational source of creativity, into the design process so that students can make original designs. In this study, the environmental design 3 project process and its result products were examined in terms of geometrical formation and creativity.



2.GEOMETRIC FORMAL FRAGMENTATION APPROACH AND DESIGN PROCESS

Form is a term that has several meanings. It is often defined as the formal structure of a work in art and design. This structure is the style of coordinating and arranging the elements and parts of a composition to produce a coherent image (Çınar and Erdönmez, 2008). Plato says, "What is beautiful is purely geometric forms. It is not the content that these forms have translated." The beauty of form is the mathematical beauty that arises from the proportion of numbers and numbers, and it expresses this order. This order is harmony. The abstract language of design is based on geometry.

In many professional disciplines dealing with design, such as landscape architecture, the creation of forms is the most important stage of design. The geometry of forms and form themes lie on the basis of the creation of forms (Düzenli et al., 2019). In shape geometry, it is possible to talk about 3 basic shapes (square, circle, triangle) and various shapes derived from them. For a correct and aesthetic form geometry, design elements (line, form, color, texture) and principles (unity, proportion, scale, harmony, balance, symmetry, rhythm, contrast) should be well known. The important thing here is to know and apply the criteria that must be complied with when using the forms both in themselves and in combination with other forms. However, if these criteria are followed, the result will be satisfactory in terms of design. It is possible to talk about four concepts (point, line, plane, volume) as the main producer of form (Chlng. 2002). Dot. It is the basis of all forms. The shifted point creates the line. The line, on the other hand, takes shape in different forms and creates the visual design theme.

The visual design theme emerges from three main geometric shapes (circle, square and triangle). With the different uses of these three main forms (breaking, splitting, merging, interference, fusion, rupture), space gains a different dimension (Krier, 1988). Whether they are works of nature or works of art, the principle that makes them beautiful is their form, not their content. These forms, too, are nothing but rectangular or circle shapes (Tunalı, 2011). The idea of proportion has led artists and thinkers to seek mathematical formulas to explain all the beauties in nature and art. This formula was found in the golden ratio. It has always been stated that the rectangle formed by the Golden Ratio has a unique visual harmony. This rectangle, indeed, contains a certain visual stability, like the 'square'. Certain properties give the Golden Ratio rectangle a mathematical affinity with the square. This closeness explains the visual harmony of the Golden Ratio rectangle. We can assemble many such rectangles by breaking them apart in a way that will produce suitable right angles and allow the resulting pieces to cluster easily (Bergül, 2009). Because design involves the development of many alternative ideas, many new design combinations can be created by exploring the relationships between the key components of a given form. It is important to consider both the circle, the square and the triangle when creating a design composition. Because all three shapes have many unique geometric features and components that affect their use in design (Booth, 1991). mainly triangular; It is directly related to the circle and the square. In other words, the extension of the sides and diagonals of the square gives us the triangle. In this study, the fragmentation of triangle, square and circle forms in the landscape design process and their creative construction are discussed.

3.MATERIAL AND METHOD

In the 3rd Semester "Environmental Design 3" compulsory course of the KTU Landscape Architecture Department, the students were given the landscape design project of Sofia Garden Café and its surroundings, which is located in the Hagia Sophia museum development area within the border of Fatih Mahallesi in Ortahisar district of Trabzon province (Figure 1).

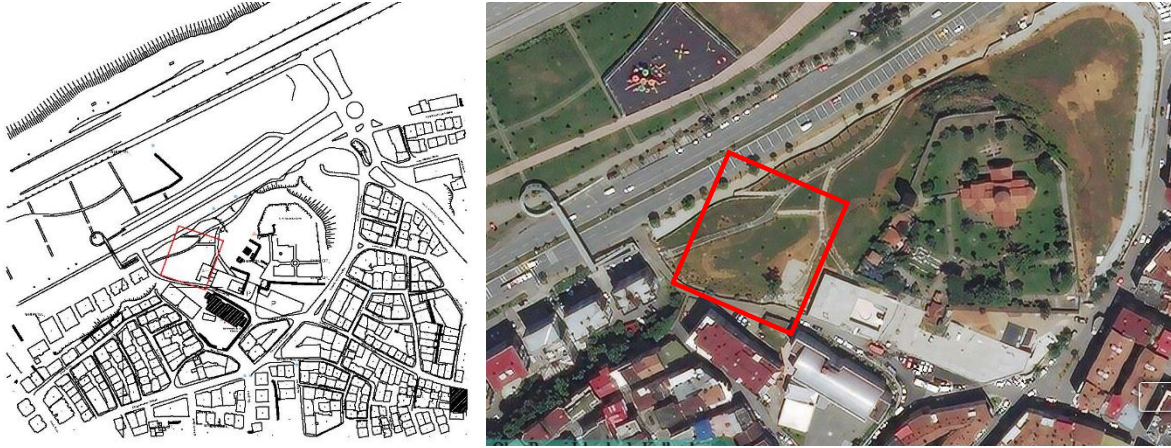


Figure 1: Maps of sofia gardenstudy area

The aim of the 2021-2022 Spring Term CTP III Project is to prepare a landscape design project for the "Sofia Garden Cafe and its immediate surroundings", located in the development area of the Hagia Sophia museum, in Trabzon Ortahisar district center, in an integrity that will meet the needs of both cafe users and city users. The general aim of the project is to construct open space activities with scenarios to be created for common areas in order to meet the recreational and social needs of cafe users and other city users in the work area located in the city center and within the Hagia Sophia Museum development area, and to produce spatial solutions for these activity areas.

Literature study on the subject, creating original scenarios on the subject, determining user needs related to the subject, needs list, function chart, analysis of needs-area possibilities, revealing and criticizing the sketches of the first spatial organizations in the light of all these evaluations, suggestions until the end of the semester. It is aimed to continue the development and criticism, suggestion-criticism process, and to pass the right project process through the delivery of the plan, section, view and model expressions of the work on which a consensus has been reached. The purpose of the designs is to have functional and aesthetic value in line with the principles of landscape architecture, in a way that will serve the users of the area. As a result of the planning and designs to be made for the said area in the project studies prepared for this purpose, the uses that will make this area work in the best way are aimed.

The course has been taught as many project groups. This study was carried out specifically by Assoc. Prof. Dr. Tuğba Duzenli- Lect. Aslı Gozde Gel group. In addition to these purposes, a fictional approach on geometric fragmentation was adopted in the Regular-Gel workshop and designs were developed in this direction.

4.EXAMINATION OF ENVIRONMENTAL DESIGN PROJECT PROCESS

First, the area map bases were given to the students. Afterwards, the students went to the area and collected data, took photographs and obtained information for the survey. Based on these data, the students prepared their survey work as a group (Figure 2).



KARADENİZ TEKNİK ÜNİVERSİTESİ ORMAN FAKÜLTESİ PEYZAJ MİMARLIĞI BÖLÜMÜ
ÇTP-III SOPIA GARDEN YAKIN ÇEVRESİ ANALİZ SÖRVEY ÇALIŞMASI

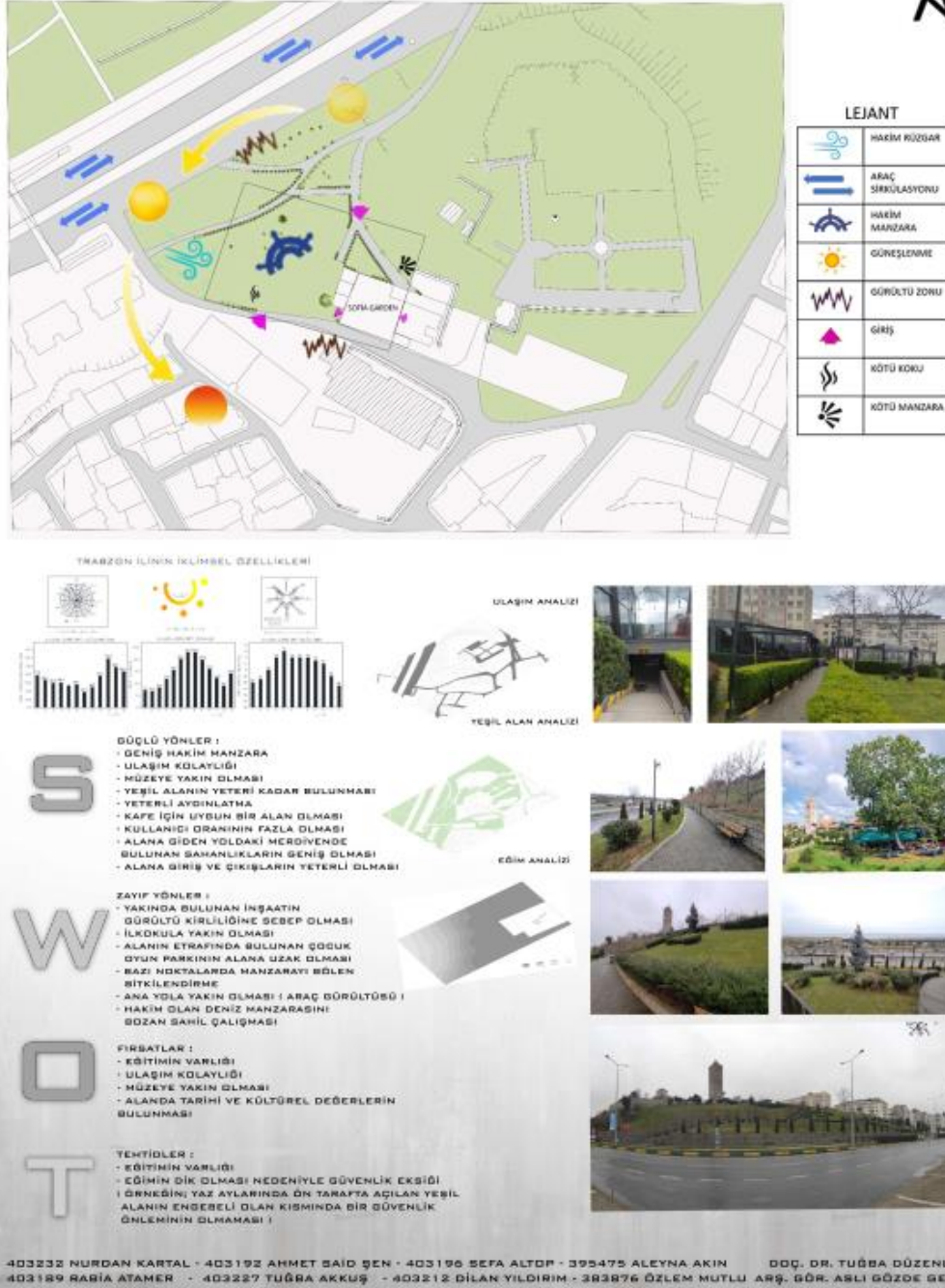
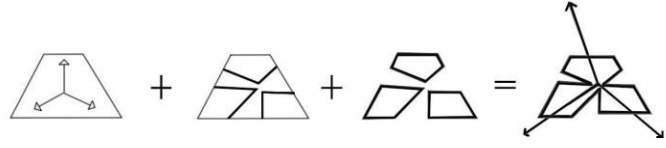
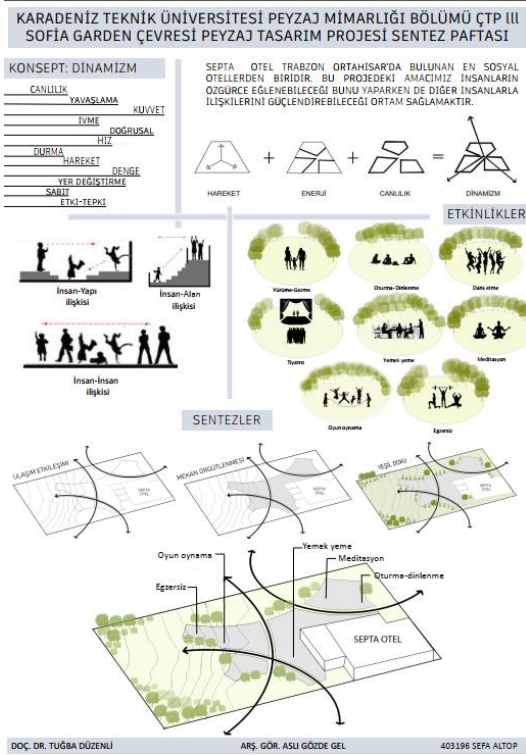


Figure 2: Group Survey Study

Afterwards, sample researches were made and synthesis and concept sheets were prepared together with activity demonstrations (Table 1). At this stage, the concepts were visually abstracted, and it was aimed to introduce the geometric division by making a conceptualization study.

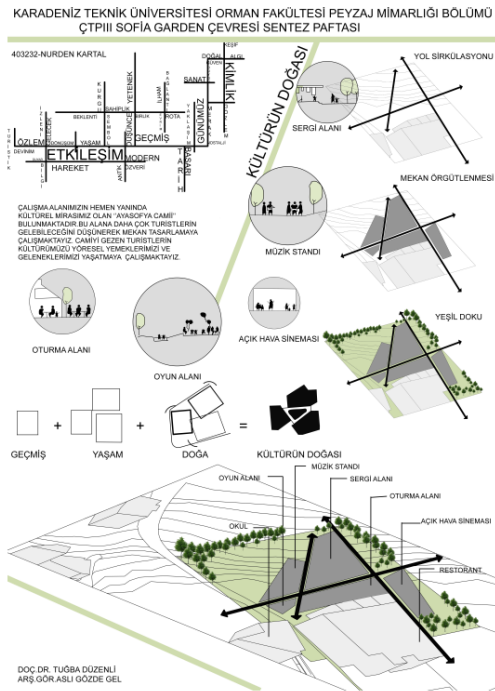


Table 1. Examination of concept sheets



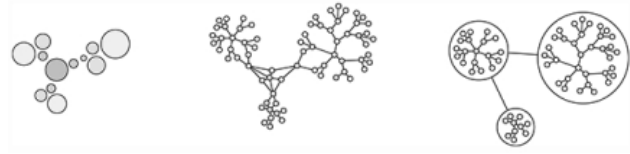
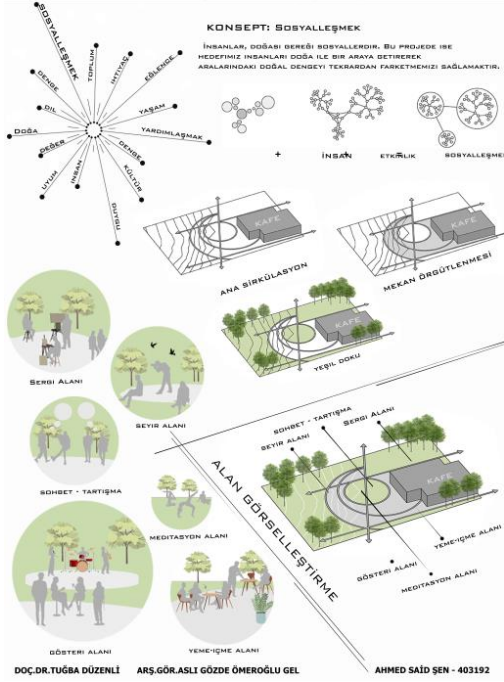
MOTION + ENERGY + VITALITY = DYNAMISM

The student determined the concept of "dynamism" as a concept. The aim of this project is to provide an environment where people can have fun freely and strengthen their relations with other people while doing this. The student also aimed to provide opportunities for many activities based on this concept in his project. First, he conceptualized the concept of dynamism by defining it with the themes of motion-energy-vitality. Then, based on this, he determined and synthesized his activities. He demonstrated the synthesis by determining the transportation axis, form and location on the area.



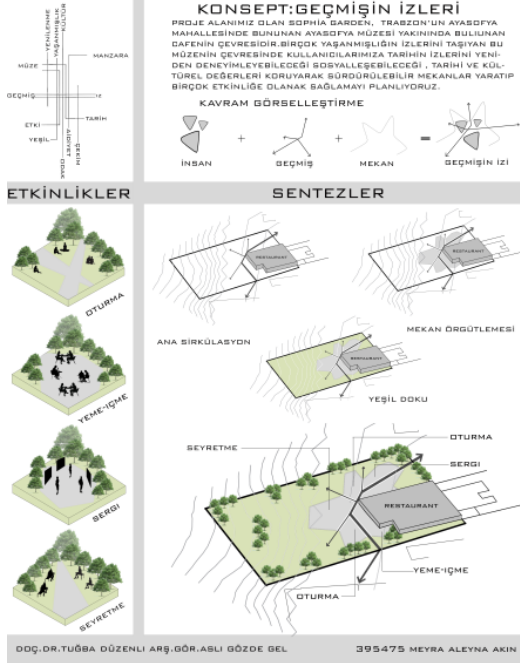
PAST + LIFE + NATURE = NATURE OF CULTURE

The student identified the concept of "nature of culture" as a concept. The aim of this project is to connect people with the past and the present, to ensure the participation of tourists and locals, and thus to keep the cultural heritage alive. The student also aimed to provide opportunities for many activities based on this concept in his project. First, he conceptualized the concept of the nature of culture by defining it with the themes of past-life-nature. Then, based on this, he determined and synthesized his activities. He demonstrated the synthesis by determining the transportation axis, form and location on the area.


**KARADENİZ TEKNİK ÜNİVERSİTESİ ORMAN FAKÜLTESİ PEYZAJ MİMARLIĞI BÖLÜMÜ
ÇTP-3 SENTEZ PAFTASI**


PEOPLE + ACTIVITY = SOCIALIZATION

The student determined the concept of “socialization” as a concept. The purpose of this project is to socialize people by participating in various activities, and the spatial setup provides opportunities for different possibilities. The student also aimed to provide opportunities for many activities based on this concept in his project. First, he conceptualized the concept of socialization by defining it with the themes of human and activity. Then, based on this, he determined and synthesized his activities. He demonstrated the synthesis by determining the transportation axis, form and location on the area.

**KARADENİZ TEKNİK ÜNİVERSİTESİ
ORMAN FAKÜLTESİ PEYZAJ MİMARLIĞI BÖLÜMÜ
ÇTP-III KONSEPT PAFTASI**


PEOPLE + PAST + SPACE = TRACE OF THE PAST

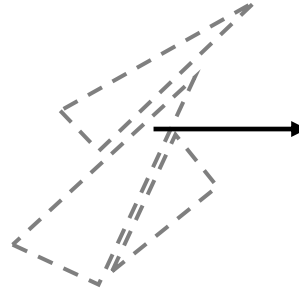
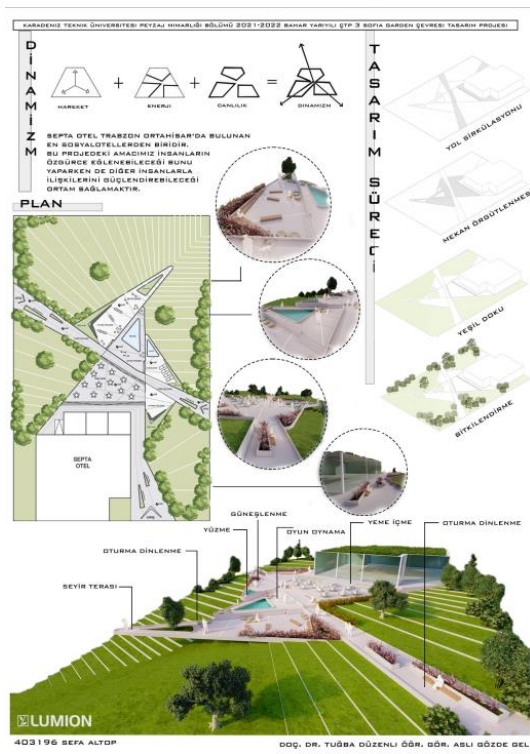
The student identified the concept of “trace of the past” as a concept. The aim of this project is to provide people with sustainable places where they can socialize by re-experiencing the traces of history, while preserving historical cultural values. The student also aimed to provide opportunities for many activities based on this concept in his project. First, he conceptualized the concept of the trace of the past by defining it with the themes of the past and space. Then, based on this, he determined and synthesized his activities. He demonstrated the synthesis by determining the transportation axis, form and location on the area.

Then, depending on these syntheses, the students drew sketches. In line with the selected sketches, the design plan was finalized and the stage was finalized. This plan includes the spaces designed spaces, topographic lines, place names, stairs, ramps and fittings, furnitures. This stage also includes the planting process. First, detailed technical drawings are made in

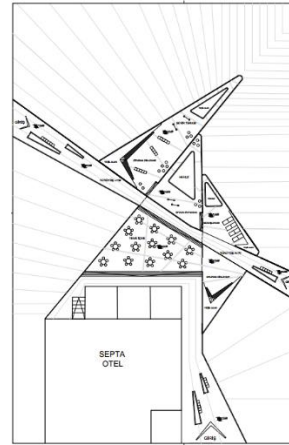


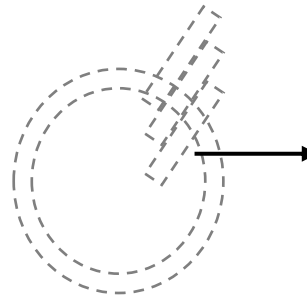
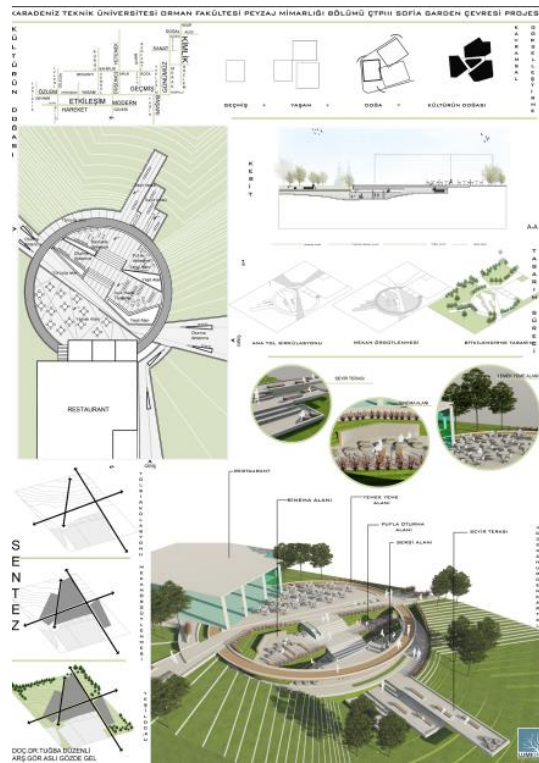
the Autocad program, then they are painted in the Photoshop program. This process is common for both hard-soft ground (Table 2). While designing in this workshop, geometric shapes were set out, and a spatial creative sequence was created, suitable for the selected activities by breaking the shape. This part constitutes the most original aspect of the process.

Table 2. Examination of final designs in terms of geometrical formation

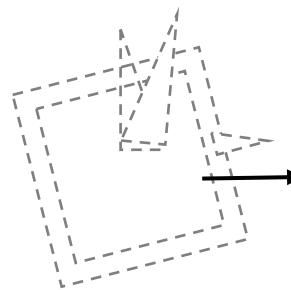
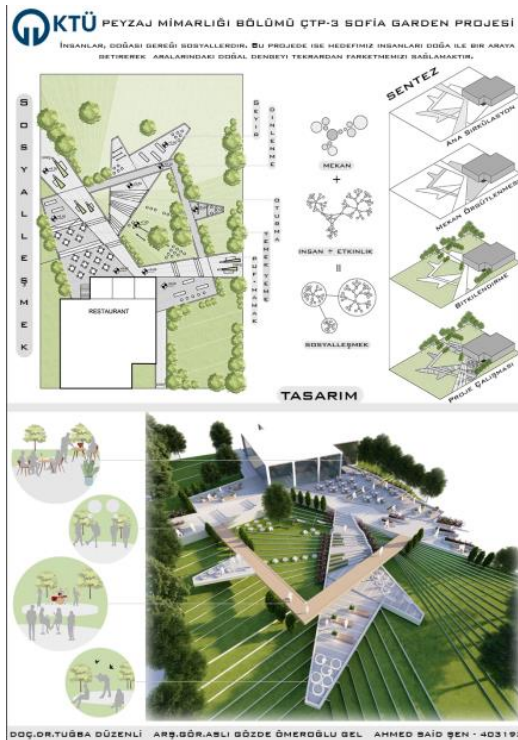
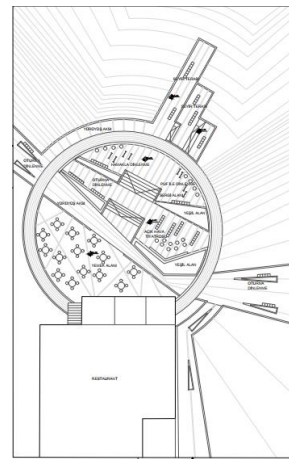


Triangles have been brought together as form geometry, and a suitable spatial index has been created by dividing their interiors with roads and floors.

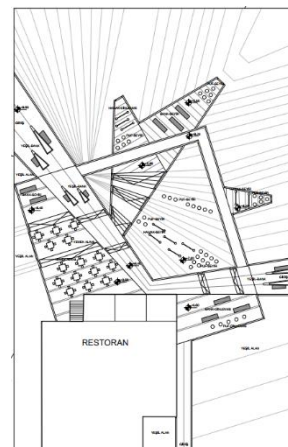


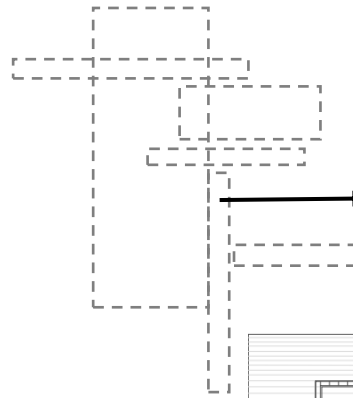
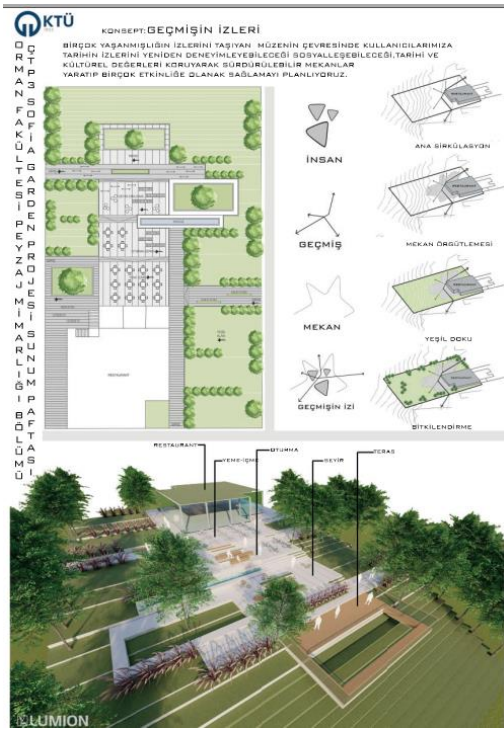


Circles and rectangles have been brought together as form geometry, and a suitable spatial index has been created by dividing their interiors with roads and floors.

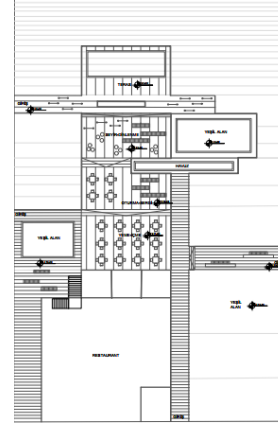


Squares and triangles were brought together as form geometry, and a suitable spatial index was created by dividing them with roads and floors.





Biçim geometrisi olarak yatay ve dikey dikdörtgenler bir araya getirilmiş, içleri yol ve döşemelerle parçalanarak uygun mekânsal dizin oluşturulmuştur.



5.CONCLUSION AND RECOMMENDATIONS

In design education, design is one of the basic areas in which a person acquires theoretical and practical design knowledge and transforms this knowledge into a design model with his own creative interpretation. In the design education process, training is provided not only to teach the person how to solve the given problem, but also to find out what the problem is. One of the primary objectives in the design education process is to provide the individual with the ability to 'Design', which focuses on the concept of 'design', which derives from human creativity (Schön, 1987). This is achieved through the discovery of knowledge and the transformation of form. One of the formal data groups is the geometric relations that define the design, the mass formations and the design rules that relate them. In this study, the design process was tried to be determined with the use of geometric shapes.

Creativity; It can also be defined as looking critically and making different propositions. In this context, creativity is more than just the emergence of a result or a clear product; It can also be expressed as establishing a relationship between ideas or forms that are not linked. In many professional disciplines dealing with creativity and design, such as landscape architecture, the creation of forms is the most important stage of design. The geometry of the forms and their forms are the basis of the creation of the forms. In shape geometry, it is possible to talk about 3 basic shapes (square, circle, triangle) and a wide variety of shapes derived from them. For a correct and aesthetic form geometry, design elements (line, form, color, texture) and principles (unity, proportion, scale, harmony, balance, symmetry, rhythm, contrast) should be well known. The important point here is to know and apply the criteria that must be complied with when the forms are used both within themselves and in combination with other forms. It was observed that the landscape architecture students, whose design processes and results were observed, followed similar paths while designing the cafe



environment and shaped their designs with similar steps. Geometric forms in the process; They have creatively constructed their space directory by breaking them down in line with the concepts and activities they have determined.

REFERENCES

- Alpak E. M., Özkan D. G., Düzenli T. (2017). Systems Approach İn Landscape Design: A Studio Work. *International Journal of Technology and Design Education*, 28(2), 593-611.
- Asimow, A.,(1962). *Introduction to Design*, Prentie-Hall, New York.
- Bayazıt, N., *Endüstri Ürünlerinde ve Mimarlıkta Tasarlama Metotlarına Giriş*, Literatür Yayıncılık, İstanbul, Türkiye, 1994.
- Bergil, M. S., (2009). *Doğada Bilimde Sanatta Altın Oran*, Arkeoloji ve Sanat Yayınları, İstanbul.
- Best,G., (1969). *Method and Intention in Architectural Design*, Design Methods in Architecture, Lund Humphries.
- Booth, N., K., Hiss, J., E., (2002). *Residenral Landscape Architecture. Design Process for the Private Residence*. ISBN 0-13-775354-3, New Jersey.
- Ching Francis D.,K., (2002). *Mimarlık. Biçim. Mekan ve Düzen*. (Çeviri: Sevgi Lökçe), YEM yayınları ISBN 975-8599-20-8. İstanbulL.
- Çınar, H., & Erdönmez, İ. Ö. (2008). *Peyzaj Tasarımında Biçim Geometrisine Estetik Bir Yaklaşım*. *Journal of the Faculty of Forestry Istanbul University*, 58(2), 23-40.
- Duzenli, T., Yılmaz, S., Çiğdem, A. (2019). *Modular System Approach In Design Education*. *Gazi University Journal of Science Part B: Art Humanities Design and Planning*, 7(3), 357-363.
- Duzenli, T., Yılmaz, S, Alpak. E.M. (2017c). *The Effects Of Model Making On Design And Learning In Landscape Architecture Education*. *Eurasian Journal of Educational Research* 17.70 121-134.
- Düzenli T., Alpak, E.M.(2020). *Peyzaj Mimarlığı Çevre Tasarım Projelerinde Sentaktik Ve Pragmatik Boyut İlişkisi*. *Sed Sanat Eğitimi Dergisi*, 8/1 31–42.
- Düzenli T., Alpak E.M.(2016). *Peyzaj Mimarlığı Eğitiminde Doğaya Öykünme Yaklaşımının Yaratıcılık Üzerindeki Etkisi*. *Mimarlık Ve Yasam Dergisi*, 1(1), 13-21.
- Düzenli T., Alpak E.M., Özkan D. G. (2017b). *Peyzaj Mimarlığında Temel Tasarım Dersinin Öğrenme Ve Yaratıcılık Sürecine Etkileri*, *Elektronik Sosyal Bilimler Dergisi*, 16, 1450-1460.
- Düzenli T., Alpak E.M., Tarakci Eren E.(2017a). *The Significance Of Public Space Art In Landscape Architecture*, *Yıldız Journal Of Art And Design*, 4, 143-158.
- Düzenli T., Yılmaz S., Alpak, E. M. (2018b). *Peyzaj Mimarlığı Eğitiminde Bir Tasarım Yaklaşımı: Doğal Örüntülerden Esinlenme*. *Sanat Eğitimi Dergisi Sed*, 6 (1): 21-35.
- Düzenli, T., Alpak, E. M., Çiğdem, A., Eren, E. T. (2018a). *The Effect Of Studios On Learning In Design Education*. *Journal of History Culture and Art Research*, 7(2), 191-204.
- Krier, R., (1988). *Urban Space*. Academy Editions. ISBN 0-8478-0236-1, London.
- Melikoğlu Eke, A.S., (2015). *Birbirini Yaratın Bir Triloji: Kavram-Düşünme-Tasarlama*. I. Ulusal İç Mimari Tasarım Sempozyumu. Ekim 2015,s. 219-225.



- O'Neill, S. ve Shallcross, D. (1994) Sensational Thinking: A Teaching/ Learning Model for Creativity, *The Journal of Creative Behavior*, 28(2), 75–88.
- Önal, G. K. (2011).Yaratıcılık Ve Kültürel Bağlamda Mimari Tasarım Süreci. *Uludağ Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi*, 16(1):155-162.
- Öncü, T. Torrance Yaratıcı Düşünme Testleri-Şekil Testi Aracılığıyla 12-14 Yaşları Arasındaki Çocukların Yaratıcılık Düzeylerinin Yaş ve Cinsiyete Göre Karşılaştırılması, *Ankara Üniversitesi Dil ve Tarih Coğrafya Fakültesi Dergisi*, 43.1, 2003, s. 221-237.
- Özkan D. G., Alpak E. M., Düzenli T. (2016). Developing Creativity İn Design Education Landscape Architecture Environmental Design Studio Work. *Tasarım Eğitiminde Yaratıcılığın Geliştirilmesi Peyzaj Mimarlığı Çevre Tasarımı Stüdyo Çalışması. Ijasos-International E-Journal Of Advances İn Social Sciences*, 2(4); 136-143.
- Öztürk, Ö.B. (2007)“İmgesel Aritmetik Yöntemiyle Mekan Tasarımı Ve Tasarım Örneği”. *M.S.G.S.Ü. Fen Bilimleri Enstitüsü Sanatta Yeterlik Tezi*.
- Rodieck, J. E., Steiner, 1998. Special Issue: Landscape Architecture Research and Education. *Landscape and Urban Planning* (42)73-74.
- Smith S.M., Ward T.B. ve Finke R.A. (1995) *Creative Cognition Approach*, MIT Press, Cambridge, London.
- Tunalı, İ., (2011). *Estetik, Remzi Kitabevi, İstanbul*.
- Yılmaz, S., Düzenli, T., Çiğdem, A. (2020). Residential Environmental Design With Nature Inspired Forms. *A| Z ITU Journal of Faculty of Architecture*, 17(3), 211-223.