An Evaluation of User Opinions on Landscaping in Saklı Kent Case

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ABSTRACT

Integration between the housing unit and indoor and outdoor space play an important role to meet all physical and mental needs of humans. Gathering landscape elements in a successful manner is an important value for open and semi open spaces in houses. Furthermore, the interaction between these spaces, landscape elements and indoor spaces is one of the most important factors in user satisfaction.

Successful space design desired by the house users can be achieved by deliberate implementation of landscape elements within the house and its surroundings. Landscape elements are important factors that affect the visual quality of a space.

The main problem observed almost in every gated community site in North Cyprus is that they are designed with a site concept independent of and not integrated with surroundings. Saklı Kent gated community in Famagusta is chosen as the study area to understand the importance of landscape in houses in indoor and outdoor space integration and to address its necessity in gated communities.

The main aim of this study is to question the importance of landscape designed and implemented in gated community sites and its effects on the user and houses to meet the changing and developing user demands through Saklı Kent Site case as well as showing the importance of integration between indoor and outdoor space in the current implementation by emphasizing user awareness. Hybrid research that is interviewing and narrative research with residents of Saklı Kent Gated community are held to reach the aim of the study and it is aimed at highlighting the strong connection between closed space and landscape, and landscape awareness on gated community design.

Keywords: Landscape, Interior Landscape, Indoor and Outdoor Relationship, Saklı Kent.

İnsanın fiziksel ve ruhsal ihtiyaçlarının tümüyle karşılanabilmesinde, konut biriminin iç mekân ve dış mekân entegrasyonu başarısının da rolü büyüktür. Peyzaj unsurlarının başarılı bir şekilde bir araya getirilmesi konut açık ve yarı açık mekânları için büyük bir değerdir. Konut açık ve yarı açık mekânlarının, kapalı iç mekânlarla olan etkileşimi, kullanıcı memnuniyetindeki en önemli faktörlerden birisidir.

Konut kullanıcıları tarafından arzu edilen başarılı mekân tasarımlarına, peyzaj unsurlarının konut içi ve konut çevresinde başarılı kullanımları ile ulaşılabilir. Peyzaj unsurları alan tanımının önemli bileşenleri arasındadır.

Kuzey Kıbrıs'ta, neredeyse tüm konut sitelerinin asıl problemi, çevresinden bağımsız, çevresi ile bütünleştirilememiş site kavramından uzak bir yapıda olmalarıdır. Açık, yarı açık ve kapalı alan ilişkilerinde peyzajın konut kullanımındaki önemini anlamak adına, Gazimağusa kentinde yer alan Saklı Kent Sitesi çalışma alanı olarak seçilmiştir.

Bu araştırmanın temel amacı, değişen ve gelişen konut kullanıcı taleplerine karşılık vermek adına Saklı Kent Sitesi genelinde tasarlanan ve uygulanan peyzajın, konutlarla ne derece birleştirilebildiği ve bu entegrasyonun konut kullanımında ne kadar önemli olduğunu göstermektir. Saklı Kent Sitesi sakinleri ile yapılan sohbetler sonucunda ortaya çıkan sonuçların değerlendirilmesi ile bu çalışma, kapalı mekân ve peyzaj arasındaki güçlü ilişkiyi göstermeyi ve toplu konut tasarımlarında bunun farkındalığını sağlamayı hedeflemiştir.

Anahtar Kelimeler: Dış Mekân Peyzajı, İç Mekân Peyzajı, İç ve dış mekân ilişkisi,

Saklı Kent Sitesi

For those who have made great contribution by heart.....

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Chapter 1

INTRODUCTION

1.1 Description of the Thesis

The word landscape is introduced by the French word 'paysage'. The lexical meaning is the view or the view of the environment. In the broad sense, it is a painting or a composition created by the natural and cultural environment within a perspective. In other words, landscape is everything that surrounds us in any place. Landscape is the product of common activities of humans and their culture on different levels. Views of the nature, and visual and living principles of humans, who use it, not only change within the space but also in time dimension. Therefore, landscape has a dynamic structure that is changed by natural, social, economic and cultural impacts (Gül, 2000).

Combining the elements of art and science, landscape creates open spaces that are aesthetical and functional (Booth, 1990). The main purpose of landscape design is to integrate environment with natural environment (Booth, 1990).

The mankind have used the nature for personal purposes since their existence and thus, created various cultural landscapes that are not environment friendly. Today, with the concern of being disconnected from the nature, people make efforts to plan and use the nature for the physical and mental health of humans by shaping it in accordance with ecological actions in the first place (Gül, 2000).

The need for outdoor space has gained less importance with transition to communal living and this has caused different spatial structures. Landscape is accepted as an important criteria for the definition of standard of living especially in today's big cities (Yiğit, Türel, 2006).

When it is looked at the historical process of open space phenomenon created by the perennial efforts of numerous civilizations and inclusive of rich values, it is seen that the development of open spaces is developed in parallel with the development of societies and that it has undertaken various missions (Yiğit, Türel, 2006).

It is observed that the use of natural landscapes is reduced day by day and it is highly replaced by cultural landscape. House can be defined as a spatial phenomenon built to meet the need for shelter, basic need, of an individual. It can also be interpreted as a unit for space planning in the smallest scale within the social system. Providing shelter, one of the basic needs, in terms of physical environment for humans, house is the entire physical and moral space that holds family, the main social unit, together (Arıcan, 2010).

House is closely related with meeting the physical needs and the social life of the individual. The spatial environment of the house affects and determines the position of the individual in the society. Economic status and lifestyle of the individual play an important role in choosing the environment that the house is located in (Arican, 2010).

According to Özay (2005),

Housing unit is built to provide shelter and protection for the human being houses are the main living units and they represent general ideas about physical, technological and socio-cultural structures of the society.

Kent (1990, p.34), said that

Houses must provide some degree of physical protection and comfort.

And, Akensel (2007, p. 7) illustrated that

Housing is the indicator of social and cultural life of people. Each housing unit has both indoor and outdoor spaces. Indoor space is a kind of space that is defined with base plane, overhead plan and vertical plane. To make successful interior spaces; structure and rules should be known and well defined. Interior space is a huge physical form that surrounds it all around. Interior space is formed by actions and it is the intersection point of the dynamism. Creating spaces or planning or editing spaces give different dimension to the spaces. Landscaping is one of the ways to do it (Akensel et. al, 2007, p. 7).

As it is defined by Booth (1990, p.83),

Landscape is one of the important elements of indoor spaces. Landscape elements are important components of space definition. Landscaping materials are used architecturally within a design to define space, establish spatial sequences, screen views, and provide privacy may also serve a number of aesthetic functions.

Austin, (1982, p.17) said that

Landscaping improves living conditions, protects the balance of wild life and prevent the deterioration of the environment with the proper placement of plants. In housing, indoor space landscaping is used to give comfort and to increase the aesthetical quality of the space. Landscape elements combine interior and exterior spaces together. Besides, especially, nowadays, most of the people who are away from the natural environment and have to stay in the modern settlements, long for the green. Because of that, they try to bring the green closer and prefer to use landscape in their indoor spaces (URL 1).

Housing need, which has changed after Industrial Revolution, has led to a consistent

need for gated community (Pılgır, 2015). The reason behind the emergence of gated

community is to deliver houses that can be produced easily and fast to more people (Pılgır, 2015).

In the process of globalization, the expectations of users from the quality of the house and housing environment have been changed as a result of changing living conditions in our country, as it has changed all around the world (Pılgır, 2015).

It is observed that gated community areas offer safer living spaces and social interaction spaces that would strengthen neighbor relations with ordered plans that support the sense of belonging (Pılgır, 2015).

Besides, especially in the Mediterranean culture, it is observed that open spaces and semi-open spaces are as important as the interior design since those spaces are one of the prominent features preferred under proper climate conditions (Pılgır, 2015).

Interior design is a physical form of numerous conditions where people shape this form with their preferences. Landscaping is one of these preferences (Pılgır, 2015).

Landscape to be designed must be a space synthesized ecologically, functionally, aesthetically and economically. By this way, it will integrate the nature where humans live and the cultural environment (Korkut, 1992; Çınar, 2008).

Accordingly, the main subject of this thesis is landscape design and its relationship between indoors and outdoors besides integration of landscape into interior space at gated community areas (Çınar, 2008).

Today, alongside studies focusing on the role of landscape in the housing areas, it is observed that in gated community areas, outdoor space is generally designed independently from indoor space and there is a weak relationship between indoor and outdoor spaces. However, the proper design and organization of landscape could increase this relationship as well as through the use of semi-open spaces in a correct way. This kind of spatial relationship would also strengthen the perception of the user towards the outdoor space whilst using indoor space.

1.2 Aim of the Study, Limitations and Research Questions

Aim

In gated community projects, developers usually consider to have outdoor landscape in their design although it is very limited when it is compared to the overall project. However, there is no consideration of having both indoor and outdoor landscape in houses which is very important in order to improve living conditions of the users. Accordingly, the aim of this study is to evaluate the use of landscape in gated community areas besides evaluating users' opinions about the existing landscape design. As a result of this study, it is aimed to provide suggestions for the improvement of landscape designs at gated community areas.

Research Question

Accordingly, this study is mainly structured around the research question that is:

"What are the opinions of users from Landscaping of the Saklı Kent?" Furthermore, sub-questions will support to design various stages of the research:

- What is meant by landscape?
- Which issues of landscape would affect design of housing sites?
- What kind of landscape elements used in Saklıkent housing?

Limitations

This study is limited with a case study which is Saklı Kent Gated community in Famagusta, North Cyprus. Three types of detached houses, attached houses and two types of apartments are the research samples. This is not a comparative study, it is just focused on a single case in order to reach its aims.

1.3 Research Methodology & Structure of the thesis

Research Methodology

This is a qualitative research. Data collection methods used in the determined case study area is literature review and hybrid research_ interview and narrative research. Hybrid research conveyed through narratives with users and interviews with the designers about design process of Saklı Kent.

Accordingly, landscape design related issues were overviewed through literature review. In the literature review part definition, use, significance, types and elements of landscape have been documented.

In the case study part, at first, evaluation of use and significance of landscape besides satisfaction and awareness of users among landscape has been provided through narrative research besides observation and photographic documentation. At the second part, narratives were evaluated in line with the issues documented in the literature review section. Literature review both gave direction to structuring the narratives and helped to evaluate the narratives with a systematic approach.

The conversations questioned the importance of landscape in gated community and its effects on the use of houses to provide data for gated community designs that will be made in the future.

	Structural Framewor	k of the Study				
INTRODUCTION						
Description of the Thesis	Aim of the study, and Research (Methodology			
	Thesis and Research Questions					
	WHAT IS LA	ANDSCAPE?				
Use and Significance of Landscape Effect on Human	Types of L Exterior Landscape	Elements of Landscape • Natural Elements				
 Effect on Human Phychology Effect on Visual and Spetial Quality Effect on Environmental Quality 	 Landscape design according to climatic conditions Landscape design according to culture Landscape design according to users 		 Natural Elements Artificial Elements 			
AN EVALUATION of USER OPINIONS on LANDSCAPING in SAKI KENT CASE						
Introduction	Method of EvaluationEvaluation ResultsObservationAwareness of UsersHybrid Research Narratives / Interviews with users Interviews with professionalsSignificance of LandscapeUse of Different Types of LandscapeOpinions of Users from Landscaping					
CONCLUSION						

Table 1: Structural Framework of the Study

Chapter 2

THEORETICAL OVERVIEW ON LANDSCAPE

2.1 What is Landscape?

The term landscape can be described in various ways. Forman and Godron (1986) defined landscape as "a heterogeneous land area composed of a cluster of interacting ecosystems that is repeated in similar form throughout" (URL 1).

Turner et.al (2002) define landscape as "an area that is spatially heterogeneous in at least one factor of interest" (URL 1).

Landscape concept emphasizes ecosystem groups and the interaction between them. It is focused on spatial heterogeneity and process. Different perspectives can be used to define landscape and each perspective requires a different definition. Landscape cannot only be defined with dimensions. Instead, it is defined with pieces in a scale and interactions between additions (URL1). According to Forman and Godron (1986), landscape can be described as follows within the scope of its structure and function as well as the context and its borders.

Landscape Concept – Structure and Function

Apart from how the word landscape is defined, its conceptual meaning is extremely precise. It is the user who determines the function in landscaping. Landscape concept is formed by spatial texture and interaction in the process (URL1).

Landscape structure;

Landscape structure is defined with spatial model. Components that create the model are composition and how this composition is structured. Landscape composition is defined with spatial elements suitable for function. Composition is not only accepted as the number and amount of landscape elements but also how they are structured in terms of space. Landscape structure is defined with spatial character. Structure is the representation of spatial appearance in landscape. The combination of these two components explain the spatial texture and heterogeneity in landscape (URL1).

Landscape Functions;

Function of landscape is defined by perceivable objects. A lot of things can be used together. In general, landscape services offered to people have functions (URL1).

Landscape Context and Borders;

There is no isolation in landscape. It includes a view that is interwoven. In other words, it has a context and regional atmosphere regardless of definition and scale. In context, landscape can be defined as limiting activity processes (URL1).

Landscape itself should be defined first to define landscape perception and concepts of landscape choices. As landscape concept can be expressed in various ways, it might have different meanings in different languages (Lengen, 2015). In this sense 'Landscape is an intensely visual idea', a phenomenon of place: 'we do not live in landscapes – we look at them' (Cresswell, 2004; Lengen, 2015).

For the European Landscape Convention, "Landscape means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors" (Anonymous, 2000; Çakcı & Çelem, 2009).

Furthermore, space in landscaping can be open, semi open or surrounded. While ceiling is the sky in general, surface of open spaces is the soil. Small volumes and spaces can be formed through design in open spaces. These spaces can be defined with the types of land and emphasized by plant groups. The formation of space in landscape can directly be done by the use of plants. It is also possible to create spaces with construction materials. Plastic sheeting, canvas fabric, wood, concrete or steel coating materials can be used for the ceiling of the space. These can be constructed permanently or temporarily and may be removable (URL2).

Common opinion about landscape architects is that they make the garden arrangements of houses and apartments and when it is thought about landscape, 'view' with its lexical meaning and something that is used by painters the most come to mind (Akkan and Çulçuoğlu, 1993; Aslan, et. al., 2014). However, "Landscape means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors" (The European Landscape Convention, 2003; Aslan, et. al., 2014).

Cities of the future are not only liveable in terms of interior and exterior design of buildings but also in terms of landscape. Landscape is important for contributing to humans' lives and should be thought as an inseparable part of architecture and interior design.

2.2 Use and Significance of Landscape

Landscape has multifunctional role within architecture. It is a significant phenomenon with various types of uses and articulation. It has a significant effect on human psychology; on spatial and visual quality besides an impact on environmental quality.

Experience of nature promotes active learning for children by providing various opportunities such as experiments and observations and contributes to interaction between children (Sedaghati & Khakpour, 2015).

Bronson (2004) states that

People have developed with nature. It seems reasonable to assume that we would also have developed cues to factors in our surroundings related to nature and our survival. In fact, we know that people respond to day length (Sedaghati & Khakpour, 2015).

In architecture, indoors have become understandable with outdoors. Therefore, outdoors are as important as indoors in architecture (Sedaghati & Khakpour, 2015).

2.2.1 Effect on Human Psychology

Landscape has various effects on human psychology. In the following those diversified effects are mentioned briefly.

• Landscape affects human beings psychologically

For instance, as Wadeson.et. al. (1989) mentions

A proper atmosphere is created by using landscaping. The approach of art therapy involves creativity, uncovers and handles emotional conflicts, creates self- awareness, and encourages personal growth for the human mind (Booth, 1990).

The point where individual, space and landscape interacts promotes perceptional, sensual and mental process and health and well-being of human beings (Lengen, 2015).

Landscape is given different meanings in different areas of use. For instance, gardens and courtyards play an important role for abilities and talents in the field of education. These kind of semi-open spaces and gardens provide education spaces with dynamic functions. Natural and artificial landscape in education centres have an effective role on education and learning as a tool for active relations, social dialogue, natural growth, stress reduction and motivation. They facilitate learning process by developing skills such as ecological sciences, creativity and presentation of artistic aspects (Sedaghati & Khakpour, 2015).

Various positive effects of plants on physical symptoms have also documented. For example, in a study in Norway, workers in an office reported fewer physical symptoms, including coughing, hoarse throat, and fatigue where foliage plants existed than those where no plants were present (Fjeld, 2000; Lohr, 2010). On the other hand, results of a study of elderly residents in an assisted living facility who contributed in a project to grow indoor plants in their rooms detected that they reported significantly improved feelings of health after working with the plants (Collins and O'Callaghan, 2008; Lohr, 2010).

Interior plants are common in many homes, work places, and commercial settings. Interior-scaping is extensive in hospital industry where its existence has been shown to boost occupancy rates and generate profit. Naturally, people sense that contact with plants and nature is healing and calm the human spirit. On the other hand, it has been stated that in 1960's, the open-plan "office landscape" characterized by the intensive use of large potted plants to separate work spaces was popular. Although the office environment has changed over time, interior plants are continued to be used in work spaces. The need for a thorough understanding of the relationship between plants and human well-being is very important (Lohr, et.al., 1996).

The relationship between humans and the nature is connected to each other through architecture. Seasonal changes in the garden directly affects emotions and behaviours. It is always attractive when spaces are created based on seasons in the nature. Sunny, windy or rainy weathers affect our feelings and provide us a diverse life (Sedaghati & Khakpour, 2015).

Nature is the medicine where humans can relax and have fun, and makes humans healthy. In short, it is chosen as the strongest medicine for humans to cure themselves. A part of houses and the nature, garden is the place where people feel themselves safe the most. It is confirmed that well designed spaces affect human psychology positively (Whitehouse et al., 2001; Bulut & Göktuğ, 2006).

"It is an unignorable fact that nature affects personality development of children positively" (Kellert and Derr, 1998; Bulut & Göktuğ, 2006). Since well-designed spaces promote physical activity, they also support physiological development (Elings, 2006; Bulut & Göktuğ, 2006). "Colours in nature are a magic for human psychology. For instance, it is stated that ocean blue reduces electricity and muscle tension in the body, that yellow is an energetic colour and green has a calming effect" (Whitehouse et. al., 2001; Bulut & Göktuğ, 2006). Ponds designed in a way that enables short-term interaction between children and water help them get rid of

tension and have self-confidence (Karallas, 1998; Anonymous 2006a; Bulut & Göktuğ, 2006; Barış & Shakouri, 2012).

Another study highlights the effects of interaction with plants, both passive and active, and its effects on changing human attitudes, behaviours, and physiological responses (Relf, 1990; Lohr, et. al., 1996). The stress-reducing benefits of passively viewing plants in natural settings are also properly documented (Honeyman, 1992; Moore, 1981-1982; Ulrich, 1984; Ulrich, et. al., 1991; Lohr, et. al., 1996); however, it has also been stated that many workers in windowless office spaces have few opportunities to view nature (Lohr, et. al., 1996). This research specified that workers in such windowless environments could have lower job satisfaction and rate the physical conditions of their work as less "pleasant and stimulating" than people in windowed settings (Finnegan, 1981; Lohr, et. al., 1996). Furthermore, the effects of how plants are widely used to personalize and decorate offices, and their significance in improving satisfaction with indoor space is also indicated (Lavinia, 1983; Shoemaker, et. al., 1992; Lohr, et. al., 1996).

• Landscape effects well-being & feelings

Some other studies quested how people feel in the presence or absence of plants and people have exposed a number of positive feelings associated with plants. Accordingly, it has been stated that the existence of plants; makes feeling more attentive, felt significantly more "carefree or playful" and more "friendly or affectionate" in the room with interior plants than in the room with or without decorative objects (Lohr, 2010).

Another study compared office workers in buildings with or without interior plants and with or without windows with views of green spaces (Lohr, 2010). Accordingly, "no more than 60% of people working in offices without plants, whether they had views of green or not, reported feeling "content" or "very happy," while 69% of people working in offices with plants but no windows and 82% of those with both plants and window views were "content" or "very happy" (Dravigne et. al., 2008; Lohr, 2010).

• Landscape reduce stress

Effects of landscape in stress recovery is also indicated by some researchers. For instance, according to Ulrich "recovery from stress is more quickly when viewing slides or videotapes of nature than viewing images of urban scenes" (Ulrich, 1979; 1981; Lohr, 2010).

• Landscape increases productivity

The presence of plants affects productivity positively. Lohr et al. (1996) measured productivity and found that people significantly responded more quickly when plants were in the room than when the plants were absent thus indicating that plants contributed to increased productivity. Tennessen and Cimprich (1995) pointed out that "Mental fatigue has also been reduced by plants". In their research they quested students while performing various tasks in their dorm rooms. It has been revealed that the students living in dorm rooms looking over nature, such as trees and grass, were less mentally fatigued and more productive than those with views of a built environment, such as sidewalks and parking lots (Lohr, 2010).

• Landscape improves health

As Ulrich mentioned "people recovered more quickly from surgery if they had a view of trees from their hospital room rather than a view of a wall" (Ulrich, 1984; Lohr, 2010).

According to Lohr (2010), "for thousands of years, people around the world have grown plants in containers and brought them into their living spaces. For thousands of years, plants and gardening have also been considered good for people physically, mentally, and socially, yet until recently, information about the intangible effects of plants on people were based on case studies such as people who say that working in their gardens made them feel better".

Today, there are numerous scientific studies documenting the relationships between people and plants, both indoors and outdoors (Lohr, 2000; Pearson-Mims and Lohr, 2000; Relf and Lohr, 2003). The range of benefits that has been documented is broad: air quality is improved (Wood et al., 2002), stress is lowered (Dijkstra et al., 2008), recovery from illness is faster (Ulrich, 1984), mental fatigue is reduced (Tennessen and Cimprich, 1995), and productivity is higher (Lohr et al., 1996; Lohr, 2010).

2.2.2 Effect on Visual and Spatial Quality

• Visual Quality

The aim of landscaping should be creating compositions that would arouse the interest of individuals, promote participation of individuals to the space and invite them to the space visually. Visual perception is one of the most important factors that would create the first impression on the user (Çakcı & Çelem, 2009).

Landscape is highly effective on both spatial and visual quality of the environment. Human beings principally experience the environment visually. In addition to the sense of hearing, smelling and taste, living things acquire information through the sense of touch, balance, perceiving heat and moisture that are known as kinesthetic senses. Sense of sight, which creates an aesthetic bond between the nature and living things, is the sense that is effective the most in perception with an 87% in comparison to other senses. Perception can be defined as choosing, arranging and interpreting the information acquired through senses. (Porteous 1996, Bell 1999; Çakcı & Çelem, 2009). Perception of physical environment occurs in various ways and different levels. Perception is not passive but active and emerges in a bidirectional way with the nature (Berleant 1992; Çakcı & Çelem, 2009). Perception in not only a physiological phenomenon. It is also affected by previous experiences of individuals and social and cultural factors. While perception of nature is actualized by the help of a few senses (sense of hearing, sight, and touch), the most important sense among these is the sense of sight. More than 80% of sensory input of human beings is provided by the sense of sight (Porteous 1996; Çakcı & Çelem, 2009). For this reason, environment perception becomes visually evident to a large extent. Preference is an opinion related with "likeability"-based experience of an individual. Common purpose of studies on preferences is to determine the aesthetical value of quality of a specific environment (Galindo and Rodriguez 2000; Çakcı & Çelem, 2009).

In this regard, Appleton (1980; Çakcı & Çelem, 2009) states that landscape is not a synonym of "environment" but defines the environment "perceived visually".



Figure 1: The aesthetical quality of an environment. Annie Residence (Triguel, 2008).

Landscape gives an instant, intuitive meaning to the space (Lengen, 2015). Visual perception that is more important than all other senses in space perception, which is also referred to as ocular centrism, ignores the physical nature of relationships between an individual and space during spatial experience and physical memory acquired from this relationship, movement and phenomenon of time in movement process (Relf, 2015).

As Nan Fair brother pointed out

Man is an animal who consciously creates landscape: the only species which deliberately alters the design of its environment for no other reason than to give itself aesthetic pleasure (Bell, 2004).

Openness and an infinite appearance give a sense of freedom. Space between landscape and the individual, and three dimensional depth play an important role for the awareness of visual space. For millions of years, human beings have developed their preferences based on the relationship between the visual model and landscape (Lengen, 2015).

Visual characteristics of landscape such as color, shape, depth, and horizontal and vertical structures effects people's perception of the environment and became an inevitable parts of the living (Cresswell, 2004; Sacks, 2010; Ryan,2012; (Lengen, 2015).



Figure 2: Effect of color, shape, depth, and horizontal and vertical structures on people's perception. Speckman House Landscape (https://asla.org/2009awards/319.html)

The environment is not landscape until people perceive it. Landscape evaluation is a personal recognition in which the perceiver's point of view, as well as that of the ecology in which the landscape is inserted, must play a part (Macia, 1979).

Visual and Audial Perception Integrity

Visual and audial arts come first in arts that interact and become integrated with the society. It is known that landscape architecture is approached as a branch of art. It is inevitable for branches of art that affect human beings and cultures to affect the landscape. Visual and audial arts with landscape architecture are shaped by the society in the geographical region they live in and maintain their existence. The two most important values of culture are music and architecture. Music, architecture and

ecological environment of a society should be understood to understand cultures. In other words, cultural characteristics of a society are directly reflected on the music, architecture and the environment of the society lived in (Aslan, et. al, 2014).

The relationship established between visual arts that include painting, sculpture and architecture and music can be established with landscape to the same extent and establishing this relationship means to take part in visual-audial perception to provide their integrity within the landscape. Inclusion of music and factors that make musical instruments evident visually in landscape designs present concrete approaches to put forward the relationship between landscape and music. Relevant examples can be found below (Aslan, et. al, 2014).



Musical garden of San Diego Botanic Garden.



Sample garden design with guitar shape.



Garden of a house in North Ireland.Garden of a house in North Ireland.Figure 3: Examples of landscape and music (Aslan, et. al, 2014).

• Spatial Quality

Landscape is a significant tool for spatial organization hence for spatial quality. It could be used to create series of spaces to separate/ connect; eliminate the bad view; provide a buffer zone; frame good views; draw attention to a particular area; create a landmark or a reference point. Furthermore, it reinforce orientation; create emphasis; limit boundary; create shadow and security for pedestrian and control pedestrian movement (Booth N. K., 1990).



Figure 4: Example of buffer Zone (https://www.asla.org/2015awards/95296.html).

Human beings seek for spaces that are easy to understand and that provide information about themselves (such as information on directions, food) (Ungar 1999;

Çakcı & Çelem, 2009). Landscape is an effective factor in defining directions. On the other hand, 'Perceptual space' is also 'the realm of direct emotional encounters with the spaces of the earth, sea, and sky or with built and created space' (Relph, 1976, Lengen, 2015). Furthermore landscape could define 'Existential space' by inner culturally based structure of space that has a common set of signs and symbols (Relph, 1976; Lengen, 2015).

It is determined with various researches that levels of order, openness and well maintenance, and existence of natural elements directly affect the choice of spaces. It is possible to present space typology by integration of spatial characteristics (Çakcı & Çelem, 2009).

The aim of landscaping should be creating compositions that would arouse the interest of individuals, promote participation of individuals to the space and invite them to the space visually. Visual perception is one of the most important factors that would create the first impression on the user (Çakcı & Çelem, 2009).

There are various factors that affect visual perception of landscape. For instance; consistency concept is the orderliness or organization level of elements that create the view. Organization of a consistent space is in an order. Different spaces that create the space are clean and can be perceived transparently. Human beings can differentiate these spaces easily. This facilitates understanding the space or deriving a meaning (Booth, 1990). Thus spatial quality effects the visual perception.

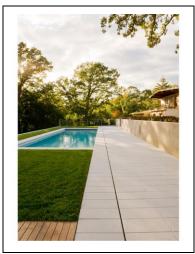


Figure 5: Example of visual perception (https://asla.org/2009awards/319.html).

Focal point of the view or triangulation is needed to increase the readability of a space. These elements facilitate orientation. The most important issue about the readability of a space is certainty. Variety of elements in a space should attract the individual. Complexity in variety activates the motive of observation. A view should have the potential to provide information and arouse interest intriguingly to create a sense of mystery (Çakcı & Çelem, 2009).

Berlyne (Ungar 1999) defined four factors, which are Complexity, Novelty, Incongruity and Surprisingness, in regard to environment choices of human beings. These can be articulated as the variety of factors within an environment, existence of new factors, level of unconformity between factors and existence of unexpected factors (Çakcı & Çelem, 2009).

Open or closed organization of a space presents the mysteriousness and readability of that space (Kaplan et. al. 1998; (Çakcı & Çelem, 2009). When the effects of existence of natural elements in the space on space choices are considered, it is reached to the conclusion that the presence of natural elements, in other words, plant materials, is dominant throughout the views liked the most. According to these

results, individuals prefer spaces dominated by natural landscape elements more to spaces dominated by structural materials. A study conducted by Schroeder (1982) has shown that the use of water as a landscape element is considered positive in terms of aesthetics by the users (Çakcı & Çelem, 2009).



Figure 6: Water use as a landscape elements (https://www.asla.org/2015awards/95296.html)

It is concluded that views dominated by structural elements are preferred the least. Presence of innovations on a certain level affect space choices positively. In space arrangements, it is advised to create different compositions that would draw and arouse the attention of individuals by maintaining the characteristics of the space or by using landscape elements instead of repetitious design and space organizations (Çakcı & Çelem, 2009).

Spaces with high consistency levels are preferred more. One of the ways to increase the consistency level of a space is the creation of spatial compositions through the use of similar landscape elements or types of space use.

Spaces with high readability levels are preferred more. Increasing readability level will enable the user find its way or target easier within a space. Unique focal points can be used for this purpose. However, frequent repetition of these elements will

cause them loose their focal point features and it should not be ignored that they would cause chaos in the space (Çakcı & Çelem, 2009).

Creation of mystery in the space is effective on space choices by activating the motive to observe on the individual. Use of serpentine roads, plants and structural materials for screening, balance between light and shadow make it possible to create mystery within the space. It should be remembered that repetitive use of or use of these elements in a way that blocks the view would affect the user negatively. The aim should be creating compositions that would arouse the interest of the individual and promote participation to the space (Çakcı & Çelem, 2009).



Figure 7: The Pool House as an example of attractive composition. (https://www.asla.org/2010awards/572.html)

Another factor that affects choice is a well maintained space. Maintenance operations and management strategies of the space should be determined during design and planning phase to maintain the characteristics and quality of the space following the work conducted on design and planning. Although landscape preferences are affected from public and individual characteristics, it is propounded that they have a universal common ground (Çakcı & Çelem, 2009). Today's architectural trend is known as structures that are compatible with nature, provide integration with open and closed spaces and establish a visual bond between the walls of external structures and landscape on vertical, horizontal and versatile planes. Transparent surfaces establish a direct communication between open and closed spaces and find a solution to obstacles in between. Surfaces that allow visual connection is necessary for the integration of composition elements of indoor and outdoor spaces. Sunlight is an absolute value that establishes the communication between an open and closed space.

2.2.3 Effect on Environmental Quality

For thousands of years, human beings have provided themselves with advantages that cannot be bought by money through the use of plants in indoor spaces. Indoor plants have plenty of benefits. They clean the air and contribute to health and comfort level in closed spaces by increasing the humidity rate in spaces we live physically. They help us calm down by making the environment we live in more livable (Lohr, 2010).

• Landscape increases indoor Air Quality

One of the ways plants affect people is through the physical changes that plants cause to their surroundings. For example, plants release oxygen and moisture into the air. Some of these changes to the environment can increase the health and comfort level for humans in enclosed environments. Interior plants play a role in phytoremediation, and significant work has been done in this area (Lohr, 2010, p.2).

Relative Humidity

Other studies on the impacts of plants on air quality, and thus indirectly on human health, have followed. One study documented that "...foliage plants can raise relative humidity to healthier and more comfortable levels in interior spaces" (Lohr, 1992; 2010).

Particulate Matter

The influence of interior plants on dust accumulation has also been explored (Lohr

and Pearson-Mims, 1996). Accordingly, it has been noticed that

Adding plants to the periphery of a room reduced particulate matter deposition by as much as 20%, even in the center of the room that is away many meters from the plants (Lohr, 2010, p.2).

Air characteristics of indoor spaces can be arranged by the presence of indoor plants.

Plants effectively reduce levels of carbon dioxide, with some species reducing concentrations during the day and others reducing levels at night (Raza et al., 1991).

Plants increase indoor humidity relatively by releasing moisture into the air, which may increase the comfort level for humans, especially in heated interior spaces (Lohr, 1992; Lohr & Pearson-Mims, 1996).

In addition, "some interior plants, along with their associated micro flora, appear to

reduce levels of several noxious gases including formaldehyde and nitrogen dioxide

from contaminated air" (Wolverton et al., 1984, 1985, 1989; Lohr & Pearson-Mims,

1996, 2565). These effects of plants generally "serve to improve the quality of the

indoor air. Plants may also reduce air quality, predominantly through the production

of pollens and spores which become airborne" (Burge et al., 1982; Owen et. al.,

1992; Lohr & Pearson-Mims, 1996, 2565).

Landscape is also effective on energy saving. Accordingly,

There are three main strategies proposed by which landscaping may be used to reduce the amount of cooling energy required by a house:

1. Directly shading the house with trees, shrubs or vines;

2. Shading the area around the house to lower the temperature of its surroundings;

3. Using ground covers to reduce sunlight reflected into the house and lower the surrounding ground temperatures (URL 4).

Landscaping is a valuable tool for climate control. In some climates, it is proposed "to avoid planting trees on the south side of the house, since even a deciduous tree can block as much as 60 percent of winter sunlight, thus making passive solar heating ineffective if not impossible. Extended overhangs, fixed or movable awnings, shade screens and similar devices are more appropriate for use on the south side" (URL 4).

Furthermore, particular landscape articulation aid wind control such as using evergreen trees and shrubs for windbreaks on the windward side. (This includes the west side for most of the state). If sunlight or a view is important, a combination of deciduous trees and shrubs may be used, but this will be less effective (URL 4).

There are several solutions to create solar control aid using landscape elements. For instance Holloway mentions that "Deciduous trees and shrubs planted to cast shadows on solar-oriented glazing can also create a micro-climate that is several degrees cooler than surrounding areas. When the leaves drop, winter sun can shine into the house" (URL 5).

2.3 Types of Landscape

Natural landscape is the appearance of a space that is almost not affected by human beings and has its own natural order. It is the texture of beautiful views that has incorporated aesthetic type samples and material resource which plays an important role to maintain the lives and to preserve the existence of living things, especially human beings. Natural landscape is shaped with different variations of land and climate conditions (Gül, 2000). **Cultural landscape** is a form of landscape that results from the use of nature by human beings for different purposes. Technological and scientific development of societies have disturbed the balance of the nature in terms of their relationship and have caused the formation of cultural landscapes that can generally be referred to as negative. It is difficult to set the boundaries of cultural landscape. It is possible to distinguish it as rural scape and city scape. Rural scape is the profile of the environment that introduces activities of the mankind in the nature apart from city-related purposes. These activities can be agricultural, recreate and industrial. Rural areas are the areas that act as a buffer zone and transition between urban and natural areas (Gül, 2000).

Agricultural landscape is the first activity where humans have changed the nature on earth. Industrial landscape is the profile of field of activities that provide raw materials to the industry or industrial complex in the rural area. These are the activities that damage the nature the most (Gül, 2000).

Forest landscape is a natural landscape that has a versatile relationship with agricultural landscape and is based on mutual principles. Landscape for tourism or recreation purposes is the profile of spaces that is allocated and arranged for people to relax, have fun and spend their spare time in rural areas (Gül, 2000).

Cityscape does not occupy a big area in terms of surface area when compared to rural scape. It is impossible to find the beauty of natural landscape within the city (Gül, 2000).

In addition to the above mentioned classification of landscape, it is possible to categorize it as exterior and interior landscape according to its location and relationship with buildings. This study focuses on this classification and discusses it further.

2.3.1 Exterior Landscape

Exterior landscape discusses formation of landscape according to the users of the happenings as public and private; on the other hand it shed a light on how landscapes formed according to various different climatic conditions besides discussing the effect of various cultures and their contribution to the formation of well-known landscapes of the world.

According to Kele (1998), open space is a part of the city where human beings maintain their lives, is out of closed spaces where buildings are constructed on or that is allocated for agricultural or non-domestic recreational purposes. Green space can be defined as a space that meets the oxygen requirement of the city and the citizen, gives an aesthetic look the city, open for public, is used actively or passively and has intense vegetation. It has been stated that "people expressed higher levels of perceived well-being in parks with greater plant diversity" (Fuller et al., 2007; Lohr, 2009).

There are number of factors that should be considered while designing a living space. User requirements and needs, relationship between indoor and outdoor spaces, budget restraints, opportunities and conditions of the existing space should be considered at the same time. The basis of a well-designed open space is adopting the phenomenon of a three dimensional organization. Open space cannot become a functional and successful space by the arrangement of plant materials on the surface or formation of a two dimensional model on the ground. Space is a place where we live, work and re-create. Plants, pavements, walls, fences and other structures are other factors that define open spaces. The influence of all these components on space characteristics should be evaluated (Booth & Hiss, 1991).

Outdoor spaces, like indoor spaces, are defined with three planes as basal, horizontal and vertical. The surface or basal plane of an open space supports all activities or elements located outdoors. The surface of a space that is resistant to intense use is coated with a hard surface such as cladding whereas other areas used less are mostly coated with a soft surface such as grass, soil or mulch. The organization of uses is directly determined by the basal plane (Booth & Hiss, 1991).

Vertical planes, walls, fences and vertical mass of trees and shrubs are formed by conjoint tree roots or surfaces with vertical slopes. Vertical planes define corners that surround a space and affect the privacy level by separating one space from another. Vertical planes can be used to direct the focus on the desired view. Characteristics of vertical planes may vary as rough, smooth, light, dark, stiff and transparent. Each of these variables affect the psychological state of the space (Booth & Hiss, 1991).

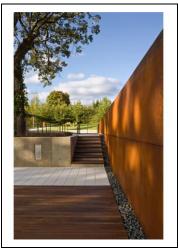


Figure 8: Speckman House Landscape with vertical planes defining corners. (https://asla.org/2009awards/319.html).

Overhead planes are formed by sunshades, pergolas and the lower part of tree canopies and affect the quality and amount of light in the space. Their second function is to affect the square meter. Type and level to obtain the targeted use and mood of open space is important (Booth & Hiss, 1991).

The integration of indoor space and open air in a way to create conjoined usable spaces is the desired type of order. One way to coordinate indoor space with open air is to expand the height of indoor space towards open air through a deck. Visual integration can be obtained by the use of same materials or same patterns in indoor and outdoor spaces and on the walls. Outdoor space should similarly have same qualities with indoor space for its comfortable use by the family through the day and night (Booth & Hiss, 1991).



Figure 9: Speckman House Landscape example with backyard activities. (https://asla.org/2009awards/319.html).

The front yard of various residential areas have two main functions. One of them is the view of the house from the street and the other one is the common space to reach the house. Backyard includes activities to live in open air, have fun, recreation, garden works and storage. Factors such as grass, furniture, barbecue, swing, sandpit, swimming pools and storage areas are the factors that support these activities. An attractive environment should be created while these needs are met. Unlike front and backyards, side yards are not generally used apart from access to the house (Booth & Hiss, 1991).

Private Exterior Landscape

Private open spaces include yard amenities, which are used to facilitate use of ground-level space; access to private open space where all units should be visually and functionally accessible from inside the dwelling; yard linked to common space; front and back customs; privacy screening for private activities are likely to occur and to delimit private from communal open space. "Visual privacy, which requires some sort of screening, is more important than auditory privacy. However, most people dislike feeling totally cut off from the activity outside their yard or patio (Eikos Group, 1980), and the smaller the area is, the less suitable is a solid wooden

fence or brick wall because it can cut out all views, cerate shadows, and result in unpleasant, pit like space" (Marcus & Sarkissian, 1986).

Landscape in common open space, that is "one of the potential aesthetic and social benefits of medium or high density housing that cluster units onto part a site allowing other parts to be left in their natural state or to be landscaped into attractive communal areas. This is fundamentally different from streets of detached or attached houses, where every parcel of buildable land is divided up into individually owned lots" (Marcus & Sarkissian, 1986).

2.3.1.1 Landscape Design According To Climatic Condition

Le Corbusier defines the incident, which starts with sunrise, includes sunset and continues until the next sunrise and ends there, as the most important factor that conditions and directs the life in nature (Arpacioğlu 2010). Days, months, seasons and climates occur because of the movement of the Sun. This important effect that shapes the living in the nature should be considered in landscape design (Durdu, 2015).

Climate is the average and the sum of air activities that takes place every day in a long time period in a place (Anonymous 2015). Majority of human effects on nature depend on climatic events and play a determining role in the life of living things (Çetin et.al. 2010). Spending more comfortable time in outdoor spaces depends on landscape design to a large extent. The main factor in outdoor space design is the climate condition within the area designed. Various climatic conditions such as rain, humidity, wind, heat, etc., affect the color, shape, size, texture and materials used in design (Yılmaz et.al. 2013; Durdu, 2015).

Open green spaces should be arranged to create comfortable spaces by considering the climatic characteristics of the region they are in. Therefore, it is very important to conduct a research on the climatic conditions of the areas where the landscape would be designed. Spaces that would be designed for hot and cold climates would differ in various aspects from floor covering materials to plant choices. For instance; the importance that would be attached to the drainage in landscape design in a climate with heavy rain would be replaced with shadowing elements in a hot climate. (Aklanoğlu, 2007; Durdu, 2015).

2.3.1.2 Landscape Design According To Cultural Differences

There are garden types that are shaped by different cultures such as, Gardens of Ancient Egypt, Aegean Greek Gardens, Roman Gardens, Ancient Persian Gardens, Indian Gardens, Italian Renaissance Gardens, French Baroque Gardens, Far East Gardens and British Naturalistic Gardens. This section will focus on, Turkish Mediterranean Gardens, Renaissance Gardens and Zen Gardens, on the housing scale will be mentioned further.

According to Wagner and Mikesell (1962), culture, culture area, cultural landscape, culture history, and cultural ecology themes are earthbound focusing on human features imposed upon or created from the natural landscape to investigate the cultural origins and environmental implications of human communities and to formulate differences and similarities among cultures and areas (URL 6).

It has also been noted that "since cultural landscapes represent many eras of natural evolution and generations of human efforts, the features are embodied with certain cultural preferences. The selections for the arrangement, style, and materials of the features reflect the distinctive way of life, or the genre de vie, of a culture" (Leclaire,

1954; URL 6).

Some cultural landscapes are in their histories and characteristics manifestations of the integration of humans and nature, of a dynamic reciprocal relationship of humans and the land. The influence or significance of such landscapes for humans and their communities is not confined to the material or physical level. Many landscapes have cultural significance and thus provide a context for and determine humans and their activities even if humans have not modified them physically. These human beings organize their lives and work to sustain themselves in a manner that is in agreement with and acknowledge the land and the diversity of resident forms of life (Arntzen, 2003, 47).

According to the definition made by Lewis 1979, landscape research is one of the most important tools to understand and explain the culture (Ari 2005). Defining the relationship between spatial uses and nature, "landscape" is an important indicator of cultural interaction and characteristics of general knowledge (Tazebay and Akpinar 2010). Meinig 1979 stated that landscape that can be thought as system with lands, roads, trees, buildings and humans (Ari 2005) reflect the culture that created it (Jordan-Bychkov and Domosh 2003; Özdemir, 2015).

• Mediterranean gardens and today's landscape design

Brookes (2012) defines outdoor space

As a room outside. When it is looked at the common characteristics of all civilizations in the Mediterranean climate, it is observed that open and semi open spaces are created in the garden by the influence of the climate.

Mobile and immobile water elements are used and climatization is formed by the use of pergolas where plants are used throughout sitting areas. Grey concrete is used as flat plates or with stream stones on hard surfaces and, various forms and motifs are created. Considering the security factor in ancient times to preserve privacy, high walls were used in garden borders. Today's garden arrangements include short walls and elements formed with fences instead of high walls. This type of usage have perpetuated the relationship between the garden and outside (Özçatalbaş & Erdoğan, 2013).

Throughout history, garden has been shaped as a result of the reflection of the culture, which is defined as a system of symbols shared by humans and handed down to next generations, on space (Tazebay & Akpınar, 2010).

• Turkish Gardens and Cultural Interaction in the Historical Process

Culture, which has influenced the formation of fine arts and architectural work during the historical process, is an important indicator of Turkish garden art. Influenced by various movements from social events to philosophical and religious approaches, garden phenomenon and use of plants are concrete cultural components. As a result of wandering, nature concept of Turks is not limited to the boundaries of the garden and is thought in the scale of meadows, streams and mountains (Tazebay & Akpınar, 2010).

Turkish garden is defined with the simplicity of order, functionality, and as a living space before it is defined by the influence of Western culture. In this period, there was no axis that created the symmetry between the structure and the garden. In the garden, sitting and eating areas in the outdoor space provide integrity with the main structures. The relationship between the land form and the garden in sloping lands is established by terrace gardens and each terrace is used for different functions. For this reason, one of the most significant characteristics of Turkish gardens is the design presented by plan elements based on symmetry. The respect to the nature, natural form and feeling the sense of order can be seen in garden design (Öztürk 2008; Tazebay & Akpınar, 2010).).

The unique climate of Anatolia, its geographical characteristics, productivity of soil and providing growth for different plants have significantly contributed to the formation of the characteristics of Turkish gardens (Kuş Şahin et.al., 2009; Tazebay & Akpınar, 2010).

Closeness of courtyards to the house is a prominent feature which shows that the house and garden are accepted as a whole and that the garden is regarded as a part of the house to spend time in open air. Found in Turkish gardens and referred to as a semi open place, porch aims at creating the ideal relationship between the garden and the building (Eldem 1976; Tazebay & Akpinar, 2010).

Garden surface in Turkish gardens have natural coating or is soil. Specific spaces such the area close to the house, swimming pool and fountain are coated with mosaic and similar materials (Aslanoğlu Evyapan 1972; Tazebay & Akpınar, 2010).

Functionality is important in Turkish gardens. Trees used in the garden are chosen based on colour, fragrance and shadowing characteristics. While more trees are used around the boundaries of the garden, plants for shadow-related and visual purposes are used in inner parts (Erdoğan 2009; Tazebay & Akpınar, 2010).

Flowers have a special place in Turkish garden arrangements. Flowers that are eye pleasing and with good fragrance do not look complex in terms of colour and type (Aslanoğlu Evyapan 1972; Tazebay & Akpınar, 2010).

Water is the essential element of the garden. General characteristics of Turkish gardens, which are referred to above in general, should not be ignored that they are

the synthesis of different cultural interactions and that they reflect the cultural characteristics of the period they were made in (Tazebay & Akpınar, 2010).

• Renaissance Gardens

Unlike the common thought that Renaissance gardens, which are mainly found in Italy and in the majority of European countries, originate from classical Greece and Rome, they originate from Islamic gardens of Spain and Asia. The result of intercultural interaction and cultural background, Renaissance gardens have developed from the Middle Ages where Middle Ages is inspired by the East and especially by the samples of Turkish-Islam gardens. The characteristics of Renaissance gardens that are known by their courts, water basins, pools, fountains, architectural elements, ornaments, plants and formal design originated in the Middle Asia and are the extensions of Turkish garden art that is born by the influence of Islam (Erdoğan 1997; Tazebay & Akpınar, 2010).

• Zen Gardens

Zen Gardens are "the places created to purify the mind with their calming and peaceful atmosphere. Small places are designed with strict elements in Zen gardens. The main pattern is simplicity and naturalness. It is the return to self without changing the nature. The most prominent feature of these gardens is the limitation in variety of materials used" (Çınar & Atakan, 2008).

Main Principles of Zen Gardens: Rocks in Zen gardens, which provide an opportunity for the recreation of natural life, are the backbones of garden composition. Design elements such as pebbles, sand and moss are inseparable parts

of this composition. In Chinese and Japanese cultures, odd numbers are believed to be lucky. This belief is effective in arrangement of rocks (Çınar & Atakan, 2008).

The harmony (feminine, masculine, horizontal, and vertical, static, smooth) formed by contrast is also very important. According to Gestalt Theory, groupings are made according to proximity, similarity, simplicity, smoothness and enclosedness (Çınar & Atakan, 2008).

Rocks placed horizontally, vertically and diagonal represent the heaven, world and humans where this triplet is regarded equivalent to each other. The shape, size, direction and distance between rocks in rock composition play an important role (Çınar & Atakan, 2008).

Zen gardens are not designed to walk around or to be lived but to look at (Charageat, 1995). Taking its strength from simplicity, these gardens provide a peaceful atmosphere with their authenticity and harmony with nature (Çınar & Atakan, 2008).

2.3.1.3 Landscape Design According To Users

Private Landscape

Each space within the house is designed for a specific function. These spaces are connected to outdoor spaces by terraces or balconies. They represent semi open spaces or open spaces. Indoor spaces, semi open spaces and outdoor spaces are combined by architectural methods (Triguel, 2008).



Figure 10: Combination of the indoor spaces, semi open spaces and outdoor spaces by architectural methods (https://www.asla.org/2015awards/95296.html).

Functions located around the courtyard not only influence the inner circulation of the house but also take the responsibility to function as the "lungs" of the house when light and ventilation, the natural needs of courtyards are used in the correct way (Triguel, 2008).

Indoor and outdoor space integrity to be created in the space can be reached if factors that strengthen indoor and outdoor space integrity such as functional distribution, furniture choice, flooring materials, surface coating materials, size and location of windows and door that will be made, courtyards that will be located within the space or the location of open or semi open terraces that will enable physical transition to courtyards or outdoor space, are considered together. Moving outdoor landscape (stone, wood, concrete, pebbles, ground cover, etc.) indoors to an extent will contribute to the relation between spaces (Triguel, 2008).



Figure 11: Indoor and outdoor space integrity (Triguel, 2008, p.240-241.)

Transparent surfaces not only strengthen the visual access but also enable physical access between indoor and outdoor spaces. "Wide and tall windows and doors can be used in spaces such as living room or dining room. These kind of spaces are secondary elements that help indoor spaces extend through the outdoor space" (Triguel, 2008).

Landscape to be designed within a space can be on the surface level and designed as vertical gardens on vertical surfaces. Natural light and ventilation needed by the plant can be met by glass surfaces that will be designed on ceiling level (Triguel, 2008).



Figure 12: Glass surfaces on ceiling level (Triguel, 2008, p.217-218.)

Plant pool in the indoor space to be designed close to an area in the outdoor space, a strong landscape work to be done in the outdoor space and use of transparent

elements that enable visual transition may form a single space atmosphere (Triguel, 2008).

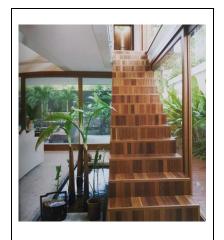


Figure 13: Example of plant pool (Triguel, 2008, p.231).

2.3.2 Interior Landscape

Landscape is an important issue for the interior spaces. There have been several different interior landscape organizations that are mentioned further such as indoor courtyard, sculpture garden, vertical indoor garden, patio, terrace gardens and special articulations with pots. These organizations are mentioned below through existing cases.

Indoor courtyard

Indoor courtyard provides access to the home and is also, simultaneously, a garden and a living room. In such spaces, a number of steps and alternative paths lead across a depression, partially or fully filled with water, and up to the front door. Depending on its level, the water forms a symbolic barrier between the exterior and the interior and serves to define the latter's functions. Reflections from the underwater wooden paneling give the whole an exotic touch. Black bamboo, bamboo palms, wisteria and bamboo canes are some of the species planted (Schleifer, 2006, p.16).



Figure 14: Example of Indoor Courtyard (Schleifer, 2006, p.16-17).

Sculpture Garden

The design used a combination of concrete stairways, platforms, balustrades, benches, bridges and walls. Flooring materials, floral arrangements and wall color schemes have been used in stark contrast with the rocky terrain and vegetation outside (Schleifer, 2006, p.22).



Figure 15: Example of Sculpture Garden (Schleifer, 2006, p.22-23).

Vertical Garden

Human nature" is the underlying theme for this design reflecting the connections between human beings and their environment. Interacting plants, glass and halogen lamps are combined to highly striking effect (Schleifer, 2006, p.16-17).



Figure 16: Example of Vertical Garden (Schleifer, 2006, p.16-17).

Articulation of Pots

Eight wooden planters, each containing a different variety of birch, are arranged around a tiled square. At night, halogen beams light up the containers to great effect (Schleifer, 2006, p.62).



Figure 17: Example of Pots (Schleifer, 2006, p.62).

Patio

Various elements are arranged according to a clearly visible pattern; vegetation follows the entire perimeter of the patio with a gravel path separating the wooden decking. Nonetheless, a sense of unity is present throughout this carefully devised composition (Schleifer, 2006, p.70).

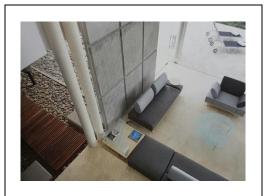


Figure 18: Example of indoor and outdoor space integration (Triguel, 2008, p.235).

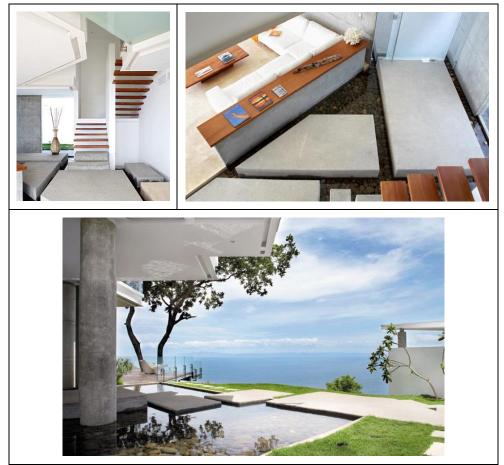


Figure 19: Example of indoor and outdoor space integration (https://homeadore.com/2012/08/10/ron-ron-casa-victor-caas/).

Terrace Garden

The available space is treated as a living room rather than a garden. This is especially evident in the garden canvas awning, the benches fitted with storage space, and the bamboo canes doubling as a screen and decorative backdrop. The generous Jacuzzi is a functional element, completely in fitting with the living room concept (Schleifer, 2006; p.170).

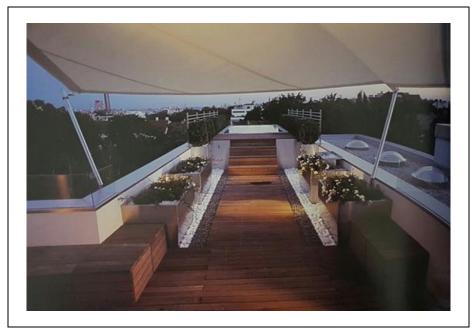


Figure 20: Example of Terrace Garden (Schleifer, 2006, p.170)

2.4 Elements of Landscape

Elements of landscape in this thesis broadly divided and discussed under two main headings as Natural (soft) elements and Artificial (hard/man-made) elements in the further section.

2.4.1 Natural (Soft) Elements

Plants have the potential to actualize various functions in modern interior designs. However, the actualization of these functions by the plants is possible by the determination of ecological factors that the space has and affect the development of plants, and the choice of types accordingly. Aesthetical characteristics of these types play an important role in formation of influential compositions in closed spaces. It may be possible by evaluating and conducting a study on habitat conditions of the space that will be designed, knowing the possibilities of using suitable types singly or as a whole, and implementing necessary final care precautions (Ulus, 2006).

Elements used in landscape design

1. Natural Elements

Types of Land: Land types should be considered as one of the main elements that shape landscaping especially in rough terrains. The designer may make arrangements in the land by changing it to a certain extent. However, this intervention should be moderate and should not be against the nature of the land type (Kader, 2016).

Water: Water has been the main element of living for humans throughout the history. For instance, seas and rivers have given life to many places and have been one of the main reasons of site selection. Apart from currently used natural water elements, artificial water bodies can also be used in landscape design (Kader, 2016).

Planting

Functions of Plants: The character in land types may be identified and emphasized in a stronger way with plants such as trees, shrubs and grass. Trees or shrubs may have the following functions (Kader, 2016):

a. To harmonize structures with surroundings and each other, to connect outdoor spaces

b. To define, emphasize or disconnect spaces and boundaries

c. To regulate vehicular traffic, divert pedestrian traffic, form physical obstacles to be prevented from traffic, linear axe, emphasize corners or junctions in terms of movement

d. To bring elements, such as building in the surroundings, from the trunk to branch, branch to stems and leaves to human scale

e. To provide privacy by creating visual obstacles, to hide the eyesores

f. To create and define an outdoor space, to create identity for these outdoor spaces by surrounding or disconnecting various spaces through ceiling effect

g. To identify difference in elevation, to emphasize slopes

h. To create vistas by directing perspectives, to render the perspective towards or away from an object or a building

i. To protect against wind, dust, sun and noise if used much enough;

j. To provide sub-climate control

k. To provide nice fragrance

1. To create harmony or contradiction through a pattern, texture and colour with a building, floor covering or water surface

m. To bring an important landscape element into prominence.

Indoor Plants and Their General Characteristics

Indoor plants are removed from the ecological environment they grow in and maintain their lives in pots or various containers in indoor spaces that have a similar growing environment to their natural environment, and have the characteristics of flowers or leaves of both (Yazgan et.al., 1990). There is no classification in the plant kingdom because each plant that grows in outdoor space can grow in indoor space if suitable environment and conditions are provided. In other words, "indoor plants" is not a concrete but an abstract concept. However, it should be remembered that while plants in outdoor spaces benefit from the nature (rain, sunlight and nutrients in the soil), these ecological needs of plants that will be grown in indoor spaces must be met by human beings, if not, plants are doomed to die (Ulus, 2006).

Indoor plants, like outdoor plants, have various aesthetic and functional uses when the relationship between the plants, which are used in closed spaces solitarily or in groups, themselves and the space is considered (Ulus, 2006).

Outdoor plants, types, characteristic, role is mentioned below based on Norman K. Booth's study called "Basic elements of landscape architectural design." Plant material is very important in outdoor space design and management. Plants form the structure of outdoor spaces and have good effects on our lives. Spaces that are defined by visual characteristics and have aesthetical, characteristic and functional use can be created based on the plant material within the landscape. In architecture, plant materials are used for space description, shading and privacy. They not only create successful spaces but also contribute to various functions such as climate balance and soil stabilization. Size is one of the most important visual characteristics of plant materials. The scale of general design frame is directly affected by plant size (Booth, 1990).

Plant materials include all types of plants from wood-like plants to ground covers and trees. Wood-like plants have various characteristics in terms of shape, size, colour and texture. Plant material should not only be thought as a decoration element. With their unique characteristics, plants have significant functions within the landscape. Plant materials have dynamic structures because they have living, growing, developing textures and different colours. They are unique elements that provide variety in the landscape with intensity of leaves that changes seasonally, differences in colour and plants with and without flowers (Booth, 1990). In addition to their visual beauty, well-used plant materials provide living spaces and rooms in the outdoor space. While plants increase the environment quality, they also increase the value of the structure within the space. Plants serve three main functions structurally and visually in outdoor spaces.

Functions of outdoor plants

While the wall forms the roof and surface structurally, it determines the borders of the space and space organization and shows user the direction of movement with visual effect. They change the air quality in terms of environment and resist erosion. They form central points as visual elements and provide visual connections. Shields can be formed to avoid the unwanted view with the use of plants or plant mass in the landscape. Plant material is very significant in general organization of the open space in terms of cover coat. Personalized spaces in outdoor spaces are created by this organization. Plant material can influence space perception in various ways on the vertical plane. Tree trunks serve as vertical coloumns and define spaces in the outdoor space. The intensity of enclosure may vary based on the frequency, thickness and the length of location of tree trunks. The same effect can be achieved by molar greens. The shield surrounding the space can be created by a single plant, plant mass or combination of other landscape elements. Plants can form open space, semi-open space or canopied spaces.

• **Open Space:** It can form a space through implication by the use of shrubs limited with spatial definers and ground covers. However, such space has no privacy and is extremely exposed to environmental factors since it is extrinsic.

- Semi open space: Vertical shields formed unilaterally or bilaterally with high plant materials block the view of the defined space from the outdoor space.
- **Canopied space:** Semi open spaces can be created with a canopy model that is surrounded on top and open on sides with the use of intensive tree mass. Canopies are plants or plant masses that have a height of 2 meters or more which individuals can walk under (Booth, 1990). The most important design feature of canopies is that they form a shading area in air.

Plant Materials

In general, plant materials are categorized in two groups. One of these is tall plants, trees and canopies whereas the other is small plants, shrubs and small trees.

• Large and intermediate trees

They are visually dominant elements because of their height and mass. Plants are distinguished as big, small and medium size trees and ornamental trees. While big trees can grow up to 12 meters and more, medium size trees can grow up to 9-12 meters (Booth, 1990). Big trees draw the attention of the audience and become the focal point in the composition. Big and medium size trees can be used to provide shadow in summer months in open spaces.

• Small trees and ornamentals

They grow up to 4.5 -6 meters (Booth, 1990). Small tress can define a space both in vertical and in horizontal planes. Small trees and ornamental trees can serve as an accenting element within the visual composition through their flowers.

• Tall shrubs

These type of plants have no trunks like the trees do and move close to the surface while growing. Shrubs are divided into three categories between themselves which are tall shrubs, intermediate shrubs and low shrubs. Tall shrubs have a maximum height of 3-4.5 meters but cannot create a canopy (Booth, 1990). They are used as border elements in space definition within the landscape. Generally, they are used as accents between intermediate and low shrubs in the composition. Tall shrubs form a natural background for objects located in front of them.

• Intermediate shrubs

This plant type represents shrubs at a height of 1-2 meters (Booth, 1990). They can be in any form, colour and texture. Plant materials at this height can be a visual transition for the arrangement between small trees and low shrubs (Booth, 1990).

• Low shrubs

The maximum height they have is 1 meter (Booth, 1990). They are used to connect irrelevant elements to each other visually. They should be used in big masses to be effective. These plants form a contrast with tall plants and used as a balancer to reach a balanced scale.

• Ground cover

Ground covers have a maximum height that is between 15 and 30 centimeters (Booth, 1990). They are used to stabilize the soil on slopes, to set borders and to determine unwalkable areas in open spaces. Creating a visual surface with plants or plant mass, ground covers are generally used at a height under the eye level.

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• Climbers

Climbers are plants that stick on other objects for support. They are used to create shadows or to hide the negative effects of the wall they receive support from, and to create a green wall effect.

• Flowers

They are referred to as annual and seasonal plants and form a part of plant material.

Plant Form

The form of an individual plant or groups of plants is the overall shape and habit of growth, or its silhouetted outline (Booth, 1990).

Although the size of a plant is not effective visually, plant form influences variety and integrity in plant composition, act as background and play an important role in its relation to other elements in vegetation cover design.

Main plant forms: Fastigiate, columnar, spreading/horizontal, round/globular, pyramidal/conical, weeping and picturesque.

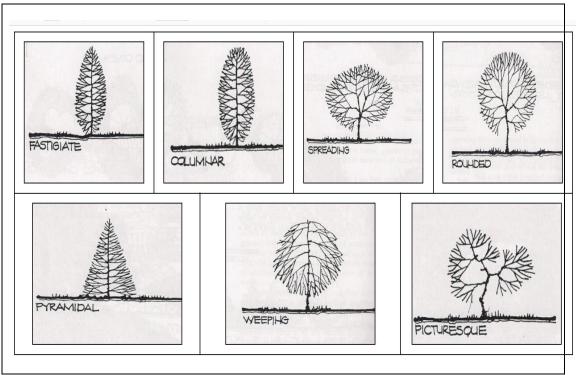


Figure 21: Plant forms (Booth, 1990, p.94)

- **Fastigiate:** This plant form gives a sense of height by making a vertical emphasis through the sky.
- **Columnar:** This plant form that resembles fastigiated plant form is more round in comparison to fastigiate. Both are used for same agricultural purposes.
- **Spreading/Horizontal:** This plant form grows horizontally and is tall. It is used to expand the perspective horizontally in design.
- **Round/Globular:** They have a round and globe-like form. They typically form the majority in design composition. On the contrary to other forms, they have a balancing effect.
- **Pyramidal/Conical:** This plant form is gradually tapered from the base to an observable point. In design, it is used to create contrast with plants in short form.

- Weeping: It is a form which is mostly formed by drooping branches and leaves.
- **Picturesque:** Found in a sculptural form, these plants have an irregular form.

Plant Color

After plant size and form, plant color is the most notable visual characteristic of plant material. Plant color may be thought of as an emotional characteristic because it directly effects the feeling and mood of an outdoor space. Bright colors convey a light, cheerful atmosphere while dark colors portray a more somber feeling. Lant color also significant because it is easily seen. Variations in plant color can sometimes be noticed at relatively great distance in the landscape (Booth, 1990, 99).

The organization of color in a planting composition should be coordinated with the other visual plant characteristic. Plant color should be used to reinforce the function of plant size and form in a design. For instance, a plant that stands out as a focal point in a design because of size or form might also possess a color that further attracts attention (Booth, 1990, 99).

Foliage Type

Somewhat related to plant color is foliage type, which refers to the form and permanence of the foliage. In the temperate climatic zone, there are three basic foliage types; deciduous, coniferous evergreen, and broad leaved evergreen. Foliage type influences seasonal interest, visibility, and unity of a design. Foliage type also relates directly to the texture of plant materials (Booth, 1990, 101-102).

Plant Texture

Plant texture is the visual roughness and smoothness of an individual plant or group of plants. It is influenced by leaf size, twing and branch size, bark configuration, the overall habit of growth, and the distance at which the plant material is viewed (Booth, 1990, 108).

Texture affects a number of factors in a planting composition, including compositionally unity, and variety, perception of distance, color tone, visual interest, and mood of a design. Plant texture is usually classified as coarse, medium, and fine with the folloving properties and potential uses in the landscape (Booth, 1990, 108).

2.4.2 Artificial (Hard / Manmade) Elements

With the broad materials they offer, hard landscape elements provide character and identity to landscape designs in parks, gardens, streets and public and private implementation areas (Şentürk, 2016).

Definition and Importance of Hard Landscape Elements

Hard landscape can be defined as the use of nonliving elements. While plants strongly emphasize landscape designs, hard landscape elements play an important role. Hard landscape elements increase the opportunity for open spaces by offering entertainment and recreation. The beautiful appearance of some hard landscape elements, which contribute to aesthetics, is mostly more important than their benefits. Fountains, reflecting pools, walls with seating, lamps for walking, swimming pools and courtyards are a few examples of hard landscape elements (Ingels, 2009; Şentürk, 2016).

According to Genç (2006), hard landscape elements (artificial landscape elements) are classified as basic elements, limitation and surrounding elements, water elements and equipment elements (urban furniture) (Şentürk, 2016).

Shakouri (2010) stated that hard landscape elements (Structural Elements used in Landscaping) are classified as floor elements, vertical elements, covering elements and equipment elements (Şentürk, 2016).

Bird (2014) classified hard landscape elements as vertical elements and horizontal elements (Şentürk, 2016).

• Water Elements

Water is another physical landscape element used in landscape design and management. It is an extremely variable design element. It can be used in various forms such as calm water in ornamental ponds, falling water or jets (Booth., 1990).



Figure 22: Example of water elements (https://homeadore.com/2012/08/10/ron-roncasa-victor-caas/).

Used as an aesthetical element in landscape, water can also be used to absorb the sound and to provide a tool for recreation. Water is one of the most challenging elements to be used in all design elements. It is emotionally attractive. Watching or listening to it has a therapy effect on human mind (Booth., 1990).

Water has various physical features that affect the aim and method in design. It should be considered with its container since it is a liquid with no shape. The same amount of water can be used in different ways. The unit, which may be size, color, location and container, shapes the form. Water can be categorized as standing water and running water. Standing water calms, balances and creates peace in emotions (Booth., 1990).

The effect of running or falling water on human psychology is the opposite of the effect of standing water on human psychology. Humans perceive water movements and the sound emitted by this movement very fast. Dynamic water can become very dramatic under the influence of sound, color and light. Standing water may be used in various types based on the form and concept of the space it will be located in with different materials and for different purposes. These can be swimming pool, ornamental pond, birdbath, fish pond or kids pool. Depth, color, texture and landscape arrangements can be different based on function (Erdal, 2003; Şentürk, 2016).

Falling water can be categorized as free fall or obstructed fall. The effect of falling water or obstructed water on humans is affected by the amount of water, rate of fall, height of the place it falls, borders of the place it will fall and softness. Another model which water meets external environment is through fountains. They generally have a centre-based location.

Water elements that are actively or passively used in landscaping has a comforting effect in addition to its aesthetic look in the Mediterranean architecture culture (URL3).

A swimming pool designed in the outdoor space is directly related with the house. Indoor arrangements are directly influenced by this function located outdoors. An indoor pool can change the whole indoor atmosphere (URL3).

Site Furniture

Site Furniture are significant type of artificial landscape elements.

• Outdoor seating

A variety of outdoor seating locations will meet different needs (Marcus, 1986, P.244). A change environment can lead to a change of mood or outlook. In locating sitting areas it is important to be conscious of the local microclimate. Besides, seating should provide for a variety of sitting arrangements, locations, and outlooks whilst considering the variety of colors, textures, and view visible from each seating location.

• Footpaths and Pedestrian Circulation

Footpath systems should accommodate predictable patterns of pedestrian circulation (Marcus, 1986, P.236). Clear definition of edges that should not force people into pedestrian areas must be provided. Footpaths alongside streets are often equally safe. Footpaths could be located so that pedestrians do not violate the privacy of nearby dwellings or yards. Lighting along paths should enable people to see their way and be seen by others in dwellings and using paths.

• Lighting Units

Landscape lighting increases the beauty and the security of private and public outdoor spaces, and adds a fascinating dimension to the landscape. Every element that would be emphasized or perceived in the landscape should be identified before the lighting design is started. Then, the design should be made by the use of correct light intensity or lighting levels, luminaire types and lighting techniques (Seçkin et.al, 2011; Şentürk, 2016).



Figure 23: Example of lighting elements (https://asla.org/2009awards/319.html).

For instance, "a terrace acuire a different character with night lighting. The table lamps or the fixtures on the floors or steps create elegant effects, even more so if they are complemented with white candles that contrast with the colors on the furniture" (Haro, 2006, p.57).

Light may also come from a swimming pool or a patio. The light fixtures placed on natural elements, such as trees, palms, flowerpots, flowers or others, are highly decorative and impregnate the atmosphere with life and harmony (Haro, 2006, p.57).

• Covering Elements

Covering elements can be classified as natural and artificial covering elements. It is an important design element where pedestrians and cars move and gather. While artificial floor covering elements can be exemplified with materials such as concrete, concrete slab, lean concrete, concrete paving, terrazzo, brick, ceramic, asphalt and rubber, natural floor covering elements can be exemplified with soil, aggregate, granite, basalt, travertine, marble, sandstone, mulch, wood, etc.

Materials that complete each other create the sense of compatibility, relaxation and comfort. This can be provided by the use of a single material on coverings, stairs and

walls, and the mutual features of different materials, such as colour and texture, chosen for a specific function (Bağbaşı, 2010; Şentürk, 2016).

• Terraces

Terraces in outdoor spaces can be described as the area of use designed with no physical connection to the buildings or the units of buildings that is left out. They are generally coated with hard surfaces due to their intense use. Hard surfaces should be maintenance-friendly, resistant and safe (Uzun, 1999; Şentürk, 2016).

• Limitations

Humans needs physical, technical and safe relations with the environment not only for privacy but also safety. The use of limitation elements is evident as a structure strengthening aesthetics. Limitation elements should correspond to the architectural form and understanding of the environment, which they will be used, in terms of aesthetics. By this way, arrangements are aesthetically and functionally beneficial and constructive (Akyol, 2006; Şentürk, 2016). Limiting elements can be exemplified as walls, stone walls, brick walls, concrete walls, geotextile walls, gabions and retaining wall.

Cover Coat Elements

These have functions such as providing shadow, protection from rain, relaxation, passive recreation and providing a third dimension to the space. They can be designed in a single or modular form as corbel, eaves, tent and suspended steel structures. Cloth, canvas, bamboo, cane and rattan with artificial roof covers made with PVC can be used on roofs based on the pergola type or they can be covered with plants. (Yücel, 2006; Şentürk, 2016).

• Pergolas

Pergola system is the method used to create semi open spaces and is preferred the most. A few different materials, such as concrete, wood and fabric, can be used in this system. Pergolas are covered with various climbing plants and thus shaded areas are provided. (URL3) Growing plants used in pergolas not only strengthen the aesthetics of pergolas but also create a comfortable atmosphere for users (Yücel, 2006; Şentürk, 2016).

• Playground Elements

Playground is a place which is only designed for children, plays an important for child development, and enable the child to play games. (Tandoğan, 2011; Şentürk, 2016).

Game elements should help the child discover the external environment and promote creative activities. They should stimulate imagination and help the development of mental and physical abilities of the child. (Acar, 2009; Şentürk, 2016).



Figure 24: Example of playground named as Green Invasion, (Hi-design International, 2013).

Climatic characteristics should be considered while choosing game elements. Chosen elements should be resistant and durable. Plastic and metal materials should be located carefully based on the fact that they are extremely exposed to sunlight, and plants, which provide shadow, and cover coat elements should be used when necessary (Kuşuluoğlu, 2013; Şentürk, 2016).

Rock Gardens

Development in technology and negative effects of global warming in the recent years have been reflected on landscape designs and have brought tendency towards new design concepts. In this context, one of the new landscape plans that have gained importance is rock gardens. Taken as a measure on the fact that humans are detached from the nature by getting lost in concrete urban texture and degradation in ecological balance, rock gardens have an important place in bringing various landscape characteristics found in the nature to the city and actualizing this by being loyal to pure natural formations (Ömeroğlu, 2010; Şentürk, 2016).

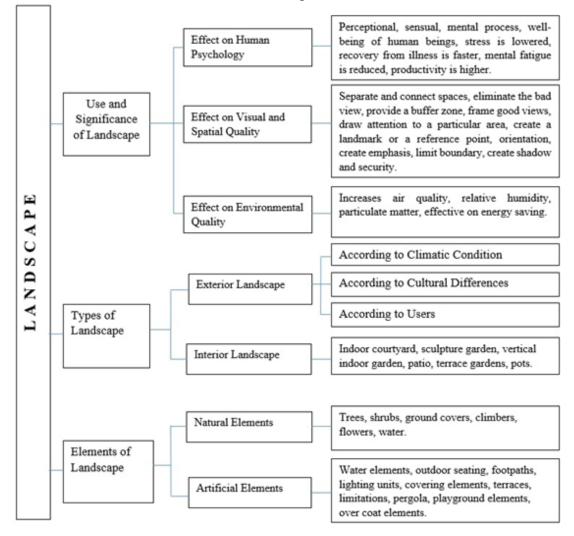
Rock gardens are frequently used in garden spaces within the scope of landscape designs. Rocks and stones in the rock garden, which will be created in garden spaces, establish a connection by providing transition between garden and the surface in landscape architecture. In addition to this, it constitutes a substructure for plant design and create the garden. Rock and stone materials can be used differently in landscape architecture and in gardens (Cox, 2009; Ömeroğlu, 2010; Şentürk, 2016).

Limitation elements (natural, artificial) define and specify the space. Geometry of the space (surfaces may be smooth, sloping, concave or convex) is formed according to the formation of space limitations. Elements (surface, wall, and ceiling) that identify the space have various characteristics which can be referred to as form of surfaces, dimensions, colours and texture (Altan, 1992; Şentürk, 2016).

One of the factors that should be considered for hard landscape materials and combinations is that whether they provide integrity with the environment and reflect the environment as a whole (Meng, 2015; Şentürk, 2016). Use of various colour combinations in hard landscape materials in landscape design has effects that change expression. Emphasis on significant points or colours within the landscape draw the attention to the space (Meng, 2015; Şentürk, 2016).

As a result of an overview of the concept of 'Landscape', framework below is developed, which directs the conversations during the case study research. Issues mentioned below used as the indicators of the survey.

Table 2: Theoretical Framework on Landscape



Chapter 3

AN EVALUATION OF USER OPINIONS ON LANDSCAPING IN SAKLI KENT CASE

In this chapter opinions of users at Saklı Kent case evaluated about the use and significance of landscape. Besides, awareness of the users among landscape whom they are living is also investigated. Accordingly, method of evaluation is stated at first and secondly evaluation results are put forward.

3.1 Introduction

Today, it is seen that the determinant of production of housing zones is phases. There has been an audience which has a tendency towards luxurious consumption that is in compliance with tendencies that can be monitored on global scale. Luxury house is not only a tool of investment but also has become a consumption product symbolizing social status. It is seen that there is inadequacy in adequate and accessible housing zone planning approach for all income groups for shelter, and gated communities are created (Özgür, 2012).

Lately, gated community phenomenon has become popular. Providing numerous free time activities for middle and high income levels, defined as predefined lifestyle and isolated from external factors with various security measures, gated communities have been seen in Turkish cities since the first half of 1980's. Although theoretical debates about gated communities relate the main reason behind their existence with the safety need of the individual, another reason is that they provide a variety of social and cultural opportunities to its users. Qualities such as well-designed green spaces, pools, walking tracks and sports activities are the reasons why such sites are preferred (Bektaş, 2014). Participation of relevant actors and establishment of partnerships during the design and implementation period of such site models are of great importance. Gated community is a comprehensive vision and action that resolves urban problems and provide permanent solutions to physical, economic, social and environmental conditions of the region exposed to change (Bektaş, 2014; Thomas, 2003).

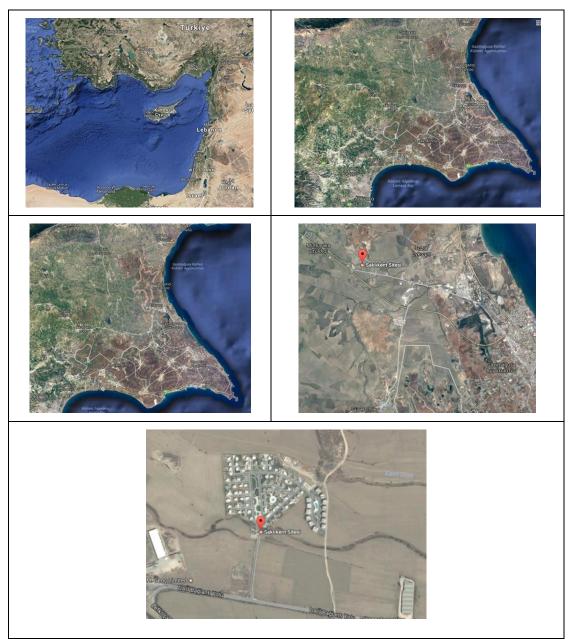
Most influential actors in the emergence period of this kind of residential areas are housing companies that choose the land and determine advertisement strategy for promotion and marketing. Supply mechanism has been more determinative than demand in emergence of such residential areas and the demanded product, in other words, architectural, physical and social context of sites are determined by investors (Perouse & Danış, 2005; Özberk, 2017). With the entrance of capital of private sector to the housing market, housing sector in urban space has shown a gradual increase (Baycan & Gülümser, 2005; Özberk, 2017). Cooperation between professionals, who will develop houses and design the planning, has created the living model referred to as 'gated community' (Özberk, 2017).

The main reason why consumers prefer collective housing and especially secured sites is demands such as resources and control over the space, property with high standards and extra security. Rich consumers want to have quality service, which they think that it is necessary for a modern and urbanized life style, an infrastructure for such lifestyle, and to be a part of a community that has cultural capital and adopted similar lifestyle (Özberk, 2017; Geniş, 2009: 124).

Recently, demand for this type of living is also observed in North Cyprus. People desire to live in more secured sites which there are availability of higher standards and extra security. Besides, availability of variety of social and cultural opportunities to its users makes it more attractive. Design of these areas need a comprehensive approach including general concept, design of various housing types, quality and diversity of both public and private open spaces including a special landscape design approach. Accordingly, in this section one of the recent examples of gated community sites that is Saklı Kent housing site in Famagusta is evaluated basically on landscaping issues.

3.2 Methodology of Evaluation

Awareness of gated community users on landscape and their opinions on current landscape implementation is identified by a case study research. Saklı Kent Gated community, which is believed to be based on customer satisfaction during the planning phase, is chosen as the study area. The main research question in line with this purpose is to understand whether the expectations of Saklı Kent Gated community users on landscape is met. It was identified with observation that whether living spaces, which were projected to be built during the design process, correspond to the product that emphasized its quality, and the opinions of the user on the current situation were evaluated by hybrid research both with narratives of designers and users alongside with the interviews.



Case Study Area: Saklı Kent Gated community, Famagusta, North Cyprus

Map 1: Location of Saklı Kent Gated community (https://www.google.com/maps/place/Sakl%C4%B1kent+Sitesi/@35.15715,33.8508 416,517m/data=!3m1!1e3!4m5!3m4!1s0x14dfca654cd552dd:0xa2b73e1236d1b98a! 8m2!3d35.155842!4d33.851418)



Figure 25: Areal view of Saklı Kent (http://www.northernlandcyprus.com/sakli-kentvilla/).



Map 2: Site Plan shows narratives

The fact that projects were started to be implemented for dwelling production in Famagusta where gated communities were highly constructed between 2000 and 2016 highlighted the competition between developers which have made investment in that region.

By implementing different methods from their competitors, developers have made meeting customer satisfaction one of the most significant business strategies due to the fact that individuals in medium and high income groups have high expectations in terms of customer satisfaction.

Gated communities, where a life with physical, social and economic dimensions are organized, make its users feel special in every aspect of life. Marketing materials state that these good spaces can buy acquaintanceships, lifestyles, health, privilege, prestige, privacy and security. They offer consumers a homogenous living space where similar income groups are gathered, and being together with people similar to them. What is bought or sold is not a house but a privileged lifestyle (Özberk, 2017).

Housing companies introduce these new living spaces to their potential customers as peaceful and serene spaces away from the chaos, insecurity and complexity of cities where they can safely raise their children. Limited access to and privatization of these spaces indicate the privilege of the space (Özberk, 2017).

Saklı Kent Gated Community, which emphasizes a radical approach to these differences in regard to its landscaping, is chosen for the case study. There is a radical approach since it has started with a different process from the beginning by inviting professional consultants to the process.

Saklı Kent Gated Community is the region called as Mormenekşe Village under Yeniboğaziçi Municipality in Famagusta District, TRNC. Located on a land around 38.000m², the site has 6 different types of houses. There are 28 detached houses with an area of 183m², 27 detached houses with an area of 208m², 16 detached houses with an area of 258m², and 24 semi-detached houses with an area of 162 m². There is a 3 story apartment building with 3 blocks where the area of a block is 1030m² and there are 36 2+1 flats. The apartment with 10 blocks where the area of a block is 756m² has 60 3+1 flats.

Acreage of detached houses varies between 484 m² and 1.197 m² whereas acreage of semi-detached houses varies between 229 m² and 335 m². The area allocated for landscaping in front of detached houses is 120m², and 60m² for semi-detached houses. The area allocated for the landscape of common space in the site entrance is 6.000 m^2 . Located in the common space of semi-detached houses, there is an open swimming pool with an area of 140m² and kid's open swimming pool with an area of $47m^2$. The swimming pool located in the common space of apartments (1.950m²) is $197m^2$ and kid's open swimming pool is $21m^2$. There is 1 tennis court and 2 playgrounds in the communal area. Approximately, 50% of the project area is allocated for landscaping. Saklı Kent Site has a security door, which can be used by car or as a pedestrian, is controlled by a security guard 24/7. There is one open parking lot for detached houses and apartments per house. The boundaries of the whole site is surrounded will walls that has a height of 120 cm. The site management has been working with Northernland Construction Ltd. since 2013 for the maintenance and cleaning of the site. In use since 2013, Saklı Kent Gated Community's users have been living there for 1-3 years.

Determination of Narrative Questions

To shape the conversations with narrators, questions were prepared by the help of topics covered in the literature review during data collection that is provided with a framework (see Table 2) at the end of chapter 2. In this regard, narrative-type questions are formed of 4 sections. In the first section, there are 12 questions aimed at acquiring demographic information and information about house users. In the second section, there are 2 questions prepared to assess the awareness of house users who have been living in the specified gated community for 1-3 years. In the third section, there are 45 questions on the current use of landscape and 8 questions in the fourth section that refers to the success of landscape according to the house users. There are 45 questions in total but since the users were asked the same questions more than one in different sections and questions regarding demographic information, the number of questions is increased to 55 in total. Narrative-type question samples can be found in, Appendix B.

Conversations were made at two stages. At the first stage, 3 professionals who contributed to the design process were mentioned their narratives about their experience during the design process. And at the second stage, conversations made with 17 users in total where 12 of them were women and 5 were men. The age of narrators varied between 28 and 43 who have 1 or 2 children and generally work in private sector. Selected house types for the interviews are 2 semi-detached houses, 2 apartment flats and 13 detached houses. The narrative-type conversation was held with Saklı Kent Gated Community users who were chosen randomly. During the random sampling, users who are living in different type of houses have been selected. Demographic information sample can be found in, Appendix B.



Figure 26: Views from the case study area (http://www.northernlandcyprus.com/sakli-kent-villa/).

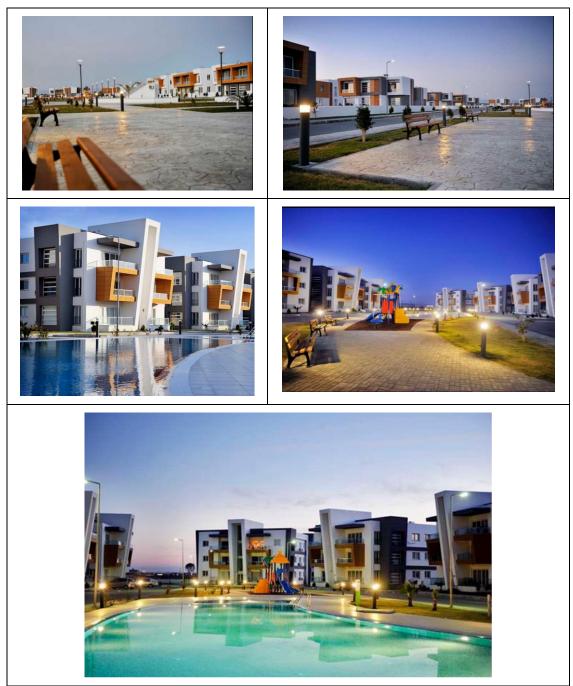


Figure 27: Views from the case study area (http://www.northernlandcyprus.com/sakli-kent-villa/)

3.3 Evaluation Results

Results have been presented in two main sub-sections. At the first section designers opinions and evaluations about landscaping and design of Saklı Kent Site has been given. And in the second section results of evaluations by users were made under 4 main headings. Accordingly, at first awareness of users about landscaping and gated

community in general has been evaluated. Secondly, significance of landscape at Saklı Kent Gated Community has been evaluated in terms its effects on the users' psychology and effects on the visual and spatial quality. Thirdly, use of landscape at the case study area has been evaluated in terms of types of landscape used as exterior landscape and interior landscape besides the evaluation of elements of landscape preferred both at indoors and outdoors. And fourthly, users' satisfaction from existing landscape design at Saklı Kent Gated Community has been evaluated as the last issue (Table 3).

Evaluation results: Narratives of professionals about landscape design of Saklı Kent Case

Designer 1: M.P.

Project design phase: Public space for all!

Designers who started the design with the idea of having a concept aimed at greeting house users and guests with water elements designed in the site entrance and green space.

Building locations: Multi-story apartment blocks are located away from duplex houses to provide privacy for the users of duplex houses. The entrance of apartment blocks are diverted towards the entrance and thus all apartment house users can meet in the communal area. In addition to these, designers proposed to have spaces for collective parking. It was aimed at moving negative effects of parking lots from landscape designs such as playground and the pool in the common space but the proposal was not accepted by the developer.

Semi private streets are created to provide a neighbourhood atmosphere in the location of duplex houses.

Just like those of apartment blocks, semi-detached houses has a centered layout planning and are located around a triangle shaped communal area. The gardens of semidetached houses, which are smaller in meter squares when compared to the gardens of detached houses, are visually enlarged and more space is created. Physical transition is provided by the garden exit doors, which are located on and limit the garden doors of private gardens, and the use of the pool in the communal area is made easier.

Soft Landscaping: Plant types, which are suggested to be planted in the communal area, are resistant to Cyprus climate. Plants are arranged in three different compositions as groups, linear and various types. It is aimed at creating focal points with gulmohar trees.

Designer 2: N. A.

Design process was started by considering the demands of developer; 'Considering the meter squares of houses, grouping between the houses was the first input of the project.'

Authorized company that owns the project aimed to fulfill several needs of the users within the premises by playgrounds where children can spend time and communal areas where house users can socialize.

It has adopted the design model referred to as "gated community" that is proposed to the customer profile with good and high income levels by the investor firm.

Cul-de-sacs are built during the project phase. Houses with more meter squares located on cul-de-sacs have same size parcels and it is aimed at making these houses

more special than others. Variations in income levels of users are also considered during the design phase.

Things that were wanted but could not be actualized during the project phase include the following;

We wish that we could have controlled the design of semidetached houses' private gardens which are opened to the communal area of semidetached houses designed as the communal area. Since the investor firm thought that such intervention would not be good, we could not do anything. Interventions made by the users on their private gardens affect the atmosphere of communal area.

Designer 3: N. D.

The main aim of the design was to create a modern culture environment. 'In addition to garden space which can be privately used by the users, we tried to create streets where they can share something together.' The main users of the streets are not vehicles but pedestrians. Value judgments, in other words, cultural approaches have been the determinants of the landscape model of Saklı Kent.

Narratives of designers pointed out that there has been an approach that put a special emphasis on the landscaping of the proposed housing site. The second part of the evaluation put emphasis on the opinions of users about the landscaping and also reveals how much of the aimed design is achieved.

3.3.1 Awareness of Users

Narratives at first start with questioning the awareness of users regarding landscaping and gated community issues. Accordingly, it has been found out that the house users of Saklı Kent Gated Community expressed what landscape is with such words as garden design, garden arrangement, garden decoration, outdoor care or environment arrangement. In general, they do not know that the word landscape includes the whole surroundings including common spaces. While users admit the word landscape as arrangement in lexical meaning, it is understood that they limit it with their private garden in a small scale.

I think that landscape is related with the use of the house. I do not have much information about it (Narrative 8).

Environment arrangement (Narrative 16).

Outdoor care (Narrative 17).

Garden decoration. Decoration of plants in an order (Narrative 12).

Furthermore, they were asked whether they have experienced a living in gated community model before they have moved to Saklı Kent Gated Community and how this experience have affected their choice accordingly. A few users stated that they have experienced a similar living model in Turkey to gated community in Saklı Kent Gated Community some said they have experienced a similar living model in council housing and the rest stated that they have had no such experience before. Apartment users stated that they have lived in apartments before but left those apartment models based on the landscaping. They highlighted that their day ended when they went to their apartments they used to live but now in Saklı Kent Gated Community, they state that their day continues.

I lived in a similar site in Turkey. I was very happy. When we realized that they have the same features, we did not look for any other (Narrative 12).

I lived in social houses and apartments (Narrative 2).

3.3.2 Significance of Landscape at Saklı Kent Gated Community

Use and significance of landscape at Saklı Kent Gated Community has been questioned in terms of the effects of landscape on human psychology and effects on spatial & visual quality.

i- Effects on Human Psychology

Throughout the discussions most of the participants pointed out that they found effect of landscape on their psychology positive. For instance, it is stated that balconies on the first floor are not that big in terms of physical usage. Considering the view from the house, it is noted that balconies designed for the first floor are successful for the environmental perception. In this question, some of the users expressed that they are not aware of the visual perception created by balconies on people.



Figure 28: Balconies designed for the first floor.

Yes, there are big glass doors which allow access to balcony from the bedroom and I think that this strengthens environment perception (Narrative 13).

Furthermore, most of them (14 out of 17) pointed out that "the glass doors and windows located on the ground floor, which is designed for Saklı Kent Gated Community, are extremely enough to perceive the outdoor landscape". The users of houses stated that they have felt as if the green space located outdoors were inside their houses with the use of such spaces. In addition to this, it is also emphasized that the stairs located between the living room and the garden, which enable connection between floors, weaken this connection. Although the spaces designed are adequate, some users said that trees planted in front of glass doors and windows block the outdoor view as they grow and break the bond between indoor and outdoor spaces. In this regard, they emphasized that trees to be planted around the building should be smaller.

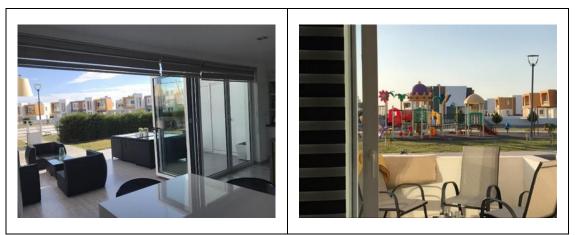


Figure 29: The glass doors and windows located on the ground floor.

My mom enclosed the backyard with fence and I cannot see the pool. They planted trees in front of the building and I cannot see the park. Although there are glass windows, I cannot see what is outside (Narrative 5).

We can perceive the garden in the kitchen. We can perceive the street in the living room but we cannot perceive our own garden (Narrative 6).

We are very happy with spaces. We think that spaces on the ground floor are a great factor for landscape perception (Narrative 7).

I think it is very successful and adequate for the garden and the street (Narrative 15).

Spaces on the ground floor are adequate for landscape perception. I can "feel" the street in my house. Spaces are adequate and you understand that you live in a house with a garden. As it can be understood from various places in the house, the entrance also has this perception (Narrative 12).

I do not think that it is very successful for the ground floor. Actually, this is the reason why the terrace is covered with glass. We have to stay indoors during winter and cannot feel and live" the garden. I wish the surfaces facing the garden could be designed in a different way where the garden could be perceived more (Narrative 13).

Participants also stated that glass doors and windows located in the living room and kitchen strengthen the physical and visual bond between the living space and the garden stated that physical and visual integration between indoors and outdoors at Saklı Kent Gated Community is very successful.



Figure 30: Physical and visual bond between the living space and the garden.

ii. Effects On Visual And Spatial Quality

• Visual Quality

Participants highlighted that one of the first reason why they have chosen Saklı Kent Gated Community as a living space is that families want a safe environment for their children not only for today but also for the future. A complete landscaping, controlled traffic, set boundaries and controlled environment are the qualities that have attracted the users. Continuous maintenance of this environment and sustainability of green spaces have played an important role for choosing Saklı Kent Gated Community as a living space. Location of houses within the estate, distance between houses and big gardens of the houses have made Saklı Kent Gated Community more qualified than other sites in that region. A few users of Saklı Kent Gated Community who did not find gated communities attractive as a living space stated that they eliminated this prejudice of theirs after seeing Saklı Kent Gated community. Especially apartment users stated that landscaping is the biggest factor to live in Saklı Kent Gated Community.





Figure 31: Qualities of a complete landscaping, controlled traffic and environment, and set boundaries.

The primary reason was that it is a safe site. Safety also includes garden arrangements. 50% was the promise made on landscaping (Narrative 3).

My mother and father came here for us. They have a park here and we can ride a bike. We can make friends (Narrative 5).

Yes, we had a house designed in another estate. However, we decided not to have that project done when we saw Saklı Kent Gated Community (Narrative 14).

No, this wasn't the primary reason. Reasons such as the location of houses which are not very close to each other like they are in other sites and big gardens were very effective. By this way, there is a distance between the houses. No one disturbs anyone (Narrative 7).

When we came to see the site, outdoor arrangements were fully completed and almost was in the condition that it is in today. We loved it at the very first time we saw it (Narrative 8).

The construction of the house was going to be completed at the same time with the construction of surrounding environment. I liked that it was organized and no construction waste would be left (Narrative 12).

The participants put a special emphasis on lighting and its significance on visual besides spatial quality. The majority of them declared that the existing ligting design is not properly and adequately designed as a part of landscape design. Certainly, during the interviews, users emphasized that lighting in common spaces is neither adequate for places for walking nor landscape perception. They stated that main common spaces where the playground is located have better lighting when compared to alleys or side streets but that street alleys are dimly lit. It is interpreted that there is no plant lighting to emphasize the landscaping throughout the site and thus it hides the value of the landscaping in Saklı Kent Gated Community.

I am extremely happy about the lighting of common spaces. We do not need more. I believe that they are adequate for landscape perception (Narrative 8).

It is not adequate when walking around. But I do not think that something extra is needed for the landscape (Narrative 2).

I think that it is not enough. I do not know what to say for landscape perception but probably it would be more attractive (Narrative 4).

It is lightened enough. However, it could have been nice if they could emphasize the plants in front of the houses with an artistic touch (Narrative 10).

Lighting in common spaces is adequate for walking but not attractive. Extra lighting on specific places could make landscape look more attractive (Narrative 11).

When they were asked about their plans for the landscaping and lighting design of their private gardens; the majority said "yes". Some users stated that plant lighting changes the atmosphere of the garden very much and that that they lighten or will lighten their garden for this reason whereas some users indicated that they do not have the need for such lighting.

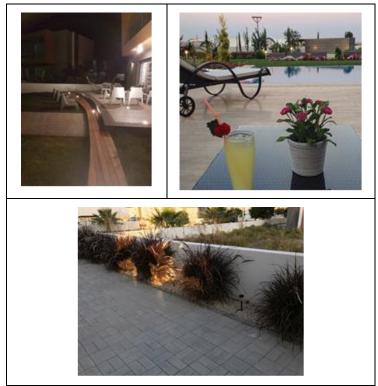


Figure 32: Landscaping and lighting design.

I do not think of having a different landscaping done. The arrangement we have done by ourselves until now is adequate. However, I will have a lighting project done for my private garden (Narrative 12).

Furthermore, when the users of Saklı Kent Gated Community were asked about the colours used on the facades of the buildings and coating materials, they stated that materials and colours used are compatible with the environment and that they like this look.



Figure 33: Colours used on the facades of the buildings and coating materials.

Yes, I think that its dialogue with the environment is good. I believe that these colours and materials are compatible with the environment (Narrative 14).

• Spatial Quality

Questions regarding effects of landscape on spatial quality made emphasis on several aspects. For instance, some of the detached house users/owners at Saklı Kent Gated Community stated that common spaces located within the site made a great contribution to socializing. They highlighted that while adults complain about the lack of time based on excessive hours of work, children actively use these areas. Adults, who find themselves in the playground, tennis court or at the pool based on the needs of their children, stated that they have the chance to socialize in such spaces as well as while walking, riding a bike or walking their pets. Some house users indicated that socializing depends on the person and common spaces do not contribute to socializing.

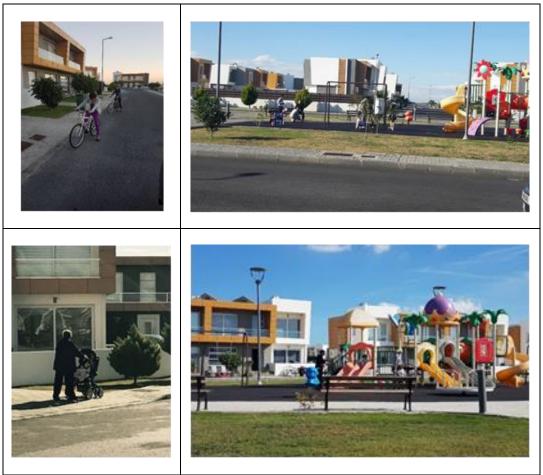


Figure 34: Common spaces located within the site.

I strongly believe it but I work for long hours. When my son grows up, we will spend more time at the pool and in the playground and this site gives us the opportunity. I attach importance to neighbor relations (Narrative 3).

I chat with some neighbors when I walk my dog (Narrative 10).

We come across at the tennis court. This provides opportunity. We ride bicycle which also gives us the chance to see each other (Narrative 6).

Sometimes, a few neighbors gather up and have barbecue parties. These type of spaces help people socialize (Narrative 7).

We agree. We met all our neighbors when our kids were playing at the park (Narrative 8).

I have many neighbors but the relationship we have is nothing more than a 'Hi'. I met some of them at the park but I do not think that it has a big impact (Narrative 4).

Not for me but for the children (Narrative 17).

I think it makes a great contribution. I do not meet or talk to many people apart from my close neighbors. I think it is the children who enable socializing. Now, my kid is very young but next year we probably will spend more time outside (Narrative 13).

Here, where the importance of distance between the location of houses and common spaces are questioned, house owners stated that they have paid extra attention to this. While they emphasized that they requested it to be especially close or distant, users who chose houses close to the common spaces indicated that it is important to have a controlled distance for their children. Considering the requests of their children, users who chose the location of the house distant to the common spaces think that the frequency in the use of common spaces provide easy control and that external intervention is minimized. Users, whose houses are located on side streets stated that they cannot see the aliveness of the site and that the houses located around common spaces feel the site life more.

Apartment users indicated that they are happy that one of common spaces is located in the center of the apartments.

I paid attention for it to be in the center. My house is close to the common space and I think that it is controlled. I did not want it to be very close. I do not like everyone being in my life (Narrative 1).

We paid attention for it to be close to the tennis court but we cannot say that we did the same for other areas. In fact, it is better when it is distant. You can keep things more private (Narrative 6).

Apartments open onto common spaces and I am very happy about it. Unfortunately, my flat does not face the common space. Flats located in the front are smaller in m2. I bought this flat because I thought I would not fit in those. I wish it could face the common space (Narrative 16).

Yes, I wanted it to be close and to face somewhere in the back. The location is more controlled now (Narrative 15).

I am very happy with the location of physical exits, visual transitions, windows, doors and glasses. I wanted number 74 on purpose. I wanted the spaces to face the East and West. Facing the common space on both directions is one of the reasons that attracted me (Narrative 10).

On the other hand, one of the significant factor has been mentioned as the pool and the size of the garden that effect their decisions during of determining which house to buy. Accordingly, some users stated that it was pool and the garden that was important and for some it was the size of green space for the plants. Some users stated that the size of the garden is not that important for them. These users indicated that the form of the garden is more important than the size of the garden.



Figure 35: Examples from the private gardens.

Of course. We want pool as well. One of the things we paid attention when making a choice was a big garden (Narrative 3).

All the gardens in this site are big. I have never thought of having the biggest garden or this is big or that is small (Narrative 14).

Our priority is the form of the garden. We are happy with the form and the size. Although we live in a semi-detached house, it has the comfort of a detached house. The width of the garden is adequate. What is important for us is the form of the garden, not the size of it (Narrative 8).

In general, when the concern is the size of garden, the meter squares allocated for common green spaces are found adequate by the users. Users emphasize that these meter squares are mostly arranged by the use of soft landscaping and since the maintenance required by these spaces is not provided (watering, disinfestation, removing weeds, removing dead plants and planting new ones, etc.), targeted healthy green amount has not been reached. The meter square allocated for green space at Saklı Kent Gated Community is evaluated as adequate, and even excessive.



Figure 36: Examples from the common green spaces.

I think that the space allocated for green space is too much. There should have been more hard landscaping. There was no need for the green space behind the apartments (Narrative 14).

I think it is adequate but these meter squares are not used on the right points (Narrative 4).

User's opinions were also asked about converting open spaces into semi open spaces. When the people who were interviewed were asked the question 'Would you like to covert the ground floor terrace into a semi open space with glass or such elements in a way to perceive the garden?', the response was that it would be practical to have such arrangements like open spaces that are mostly used in spring and summer for their use in winter months. On the other hand, there are users who think that there is enough integration between indoors and outdoors, similar spaces located indoors that are created with the use of glass windows and doors and that there is no need for a closed space apart from the cover coat of open spaces.

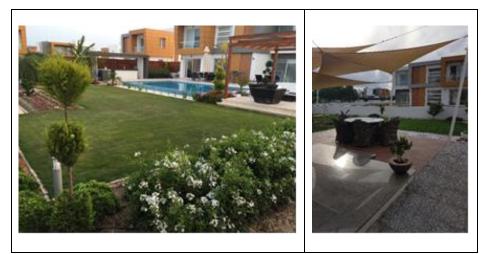


Figure 37: Examples from the semi open spaces.

We think to enclose the terrace to use it both in summer and in winter (Narrative 2).

I do not think that it will look good on a building. I will not do it (Narrative

We extended the terrace

9).

We extended the terrace located at the back. I want to cover it with glass to use it in winter, to receive the sunlight and to see the garden. I want to have these glasses in other seasons too. I do not want it to come between me and the garden (Narrative 13).

The answer to their level of satisfaction about the disengagement of entrance of the house with the pavement or the road in terms of spatial quality; was positive to a large extent. It is though that the landscape design makes the green spaces feel as a whole, single space. Some house owners have cancelled terrace walls in the front façade and have no blockage between the terrace and the common spaces. Some users emphasized that this poses danger for children and pets since they have no front yard in such arrangement model. They cannot leave the entrance door open and they think that the communication with outdoors is blocked in a way.



Figure 38: Engagement of house entrance with the pavement or the road.

I cannot leave my door open because I have a pet. My pet goes out since I have no garden door. I will combine front terrace with the terrace in front of the door and put a glass railing. Unfortunately, this arrangement is not practical for me. My kid will start walking soon. The same problem will continue (Narrative 3).

We are happy. The site is close to each other (Narrative 4).

I wish I did not have a garden wall in the front. It gives a perception of street and tells that the street would not have wanted to be divided in places. I do not feel uncomfortable with the fact that doorstep opens onto the common space directly and is not separated from the front yard. Instead, I am very happy about it (Narrative 10).

The use of balconies on the first floor are rare since the users said that they almost do not use the balconies located on the first floor. Based on the successful dialogue between the terraces on the ground floor and indoors and the garden, the users highlighted that they do not have the need to use the balconies on the first floor. The fact that balconies on the first floor do not offer a functional atmosphere is one of the reasons why those balconies are not used.

We use the ones on the ground floor. If there is a terrace on the ground floor, no one uses the terrace on the first floor. It is small in size but if it were big, we would not use it anyway (Narrative 15).



Figure 39: Balconies on the first floor.

The use of private garden of the houses was mostly responded as "yes". It was addressed to the time period spent in the garden based on the season and it was stated that private gardens are used intensively in summer. The users who live in the apartment on the ground floor drew the attention to the fact that planting the back of the apartments allow children to play games. Users who have not done the garden arrangement yet said that they do not spend time in their garden.



Figure 40: Private garden use of the houses.

Especially in summer (Narrative 10).

Yes, I love living in the garden. It plays an important role in my life (Narrative 13).

Besides, while the answer to the question 'Would like the top of your terrace to be covered?' was a yes to a large extent, it is understood that there have been many users who have wanted to such arrangement but did not since they concerned about ruining the façade of the building. The house users who have this idea stated that they wished that such arrangements could have been considered during the project phase. They indicated that they wished terraces could be designed as semi open or semi closed spaces in a flexible way instead of a pergola. The need for this is stated to be the climate. Apart from the lack of semi open spaces in Saklı Kent Gated Community, there are some house users who say that they do not have such need. These users stated that they can find a shadowy place based on the direction of the sun and love to see the sky.

I wish the terrace, where we have our meals, was covered on top (Narrative 14).

Based on the direction of our house, there is sun on the terrace the whole day. We need shadowing elements for the terraces both in the front and at the back (Narrative 7).

We do not need a semi open place. We use the terrace based on the time when it is shadowy (Narrative 8).

I wish the balcony at the back was covered on top but I think that it will ruin the view. It is not needed in the front because we do not sit there. When I find an appropriate shadowing element, I will have it placed on the balcony (Narrative 12).

When the users of houses were asked if kitchen is the indoor space that they spend the most their time in, they stated that they spend the same amount of time in the kitchen and in the living room. The users stated that they enjoy any room in the house since the relationship between indoors and that relation with the garden is strong.

Living room and the kitchen is within the same area. The house has a beautiful plan. You are everywhere. Especially on the lower floor! I cannot say that we spend time in this or that room more (Narrative 1).

Furthermore, users think that spaces such as kitchen where eating and drinking activities take place bring users together with outdoor spaces more than indoor spaces.

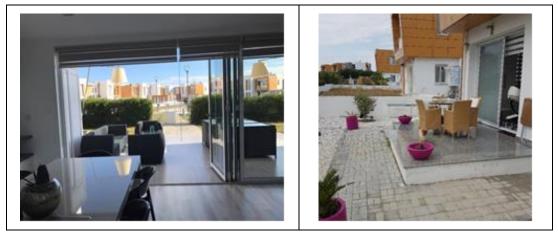


Figure 41: Relationships between eating and drinking activity with outdoor spaces.

Backyard is more private and we prefer it more. Since it is close to the kitchen, I use the terrace located around the kitchen. There is a terrace that

opens onto the backyard but we do not prefer using it. We do not use the terrace in the front at all (Narrative 12).

On the other hand questions regarding the need for an extra storage space for gardening equipment's was mostly a "yes". The interviewees stated that they need equipment's for a nice garden and that it is an essential need that should have been thought of during the project phase. The house owners who have provided themselves with such needs and stated that they can give decisions against the landscaping indicated that each house with a big garden needs such storage space.



Figure 42: Extra storage space for gardening equipments.

It is necessary for houses with big garden (Narrative 7).

It is not only used for the garden but also the house. I think it is necessary (Narrative 10).

3.3.3 Use of Different Types of Landscape at Saklı Kent Gated Community

User's opinions about use of existing exterior and interior landscaping issues besides elements of landscape were questioned during the narrative research. Their ideas and experiences regarding general and individual landscaping treatments were asked.

i- Exterior Landscape

Following the sale of houses, just as designed in common spaces, it is stated that a work on landscaping for private gardens of houses is needed. Majority of users stated that they try to arrange their private gardens on their own without receiving professional support. The fact that users have no knowledge about planting and care and not spending adequate time for plant care have caused the death of plants and waste of money. In addition to this, users who received necessary professional help for landscaping have also received professional help for garden care and have reached a healthy for their garden. The interviewees agree on the fact that a landscape project would increase today's garden and house quality during the sale of houses.

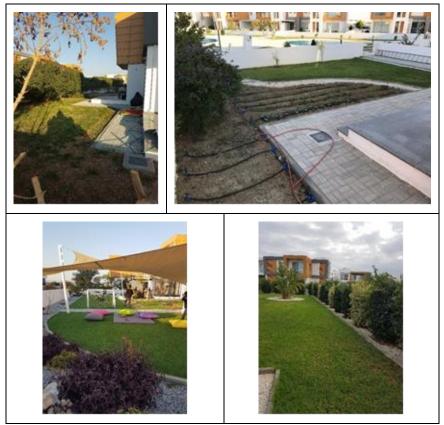


Figure 43: Landscape project examples with enhanced quality of garden and house.

I wanted. In fact, we requested it. But they responded very late because I think that the constructing company was not prepared for it. We did not want be late for it anymore, so we started and finished it on our own. The pool is not fully finished yet (Narrative 3).

If the project was proposed, we could get it done because now it is incomplete. If this was offered just as the pool was offered, we would have it done because we are not garden experts (Narrative 7).

I wanted. Both indoors and in my private garden (Narrative 9).

I might have not liked it if it were offered to me back then because it is my private garden. I might have wanted to make my own decisions but today I do not think this way. Today, I would say that I want it. We tried to do it several times. Sometimes we were successful and sometimes we were not and we still try it and at the end of 2 years, we have had some bad experience. This period could have been more productive. I would definitely have wanted it if there were a project phase which I could involve in (Narrative 10).

In terms of effect of landscaping on the usage frequency of terraces, house owners stated that they use the terrace at the back that faces their private garden. They indicated that landscaping plays a big role in use of terraces that terraces facing gardens with no landscaping are not preferred much and that they prefer front terraces facing common spaces with a landscape. It is also noted that the use of the view as well as the size of the terrace plays an important role. The importance of climate conditions is emphasized and it is indicated that the use of terrace is changed based on the direction of the sun.



Figure 44: Effect of landscaping on the usage of terraces.

We use the terrace that faces the backyard. We use the terrace in the front when it becomes shadowy. We use the front balcony when we escape from the sun (Narrative 14).

The fact that our house does not look towards common spaces made our front garden more private in comparison to others. When compared to other users of the site, we use the front terrace more (Narrative 11).

The stories regarding getting landscaping done for their private garden responded equally positive and negatively. While some users received this support from professionals, some did it on their own. It is observed that there are only a few users who have made no arrangements in their private garden. It is stated that no project proposal for the private gardens of the houses affected the landscape quality of Saklı Kent Gated Community negatively during the sale phase. Majority of house users who have not received professional landscaping support until now highlighted that they will receive it in the future.



Figure 45: Examples of private gardens with lack of arrangement.

We did not get it done, we tried to do it on our own but we will get it done (Narrative 4).

• Exterior Landscaping According to Climatic Condition

House users who prefer outdoor spaces in spring and summer instead of indoor spaces stated that living in outdoor space is a part of their culture. They also indicated that climate conditions of Cyprus Island are not very eligible for outdoor activities, complained that summer is very hot and winter is cold and spring is short, and that they mostly prefer indoor spaces.



Figure 46: Usage of outdoor space as a part of culture.

• Use of Furniture at Exterior Spaces as a Part of Landscaping

According to their preference of using garden furniture in open or semi open spaces that could be used in every season was interpreted as that the furniture makes terrace and the garden livable. Although the house users do not use the garden furniture every season frequently, they emphasized that those spaces would not be used if they were not there. Moreover, it was indicated that both arrangements are parallel needs considering the fact that spaces covered on top would prolong the life of the garden furniture.

We remove the covers based on the season and put them again. We do not use it every season (Narrative 6).

If it could be protected, in other words, if the terrace was covered on top, I would have wanted it but since it is not, we use it based on the season (Narrative 4).

We have a beautiful climate. Therefore, we can make use of outdoor spaces frequently. We keep the furniture there. It is nice to have them there (Narrative 11).

ii- Interior Landscape

As much as exterior landscaping, interior landscaping possess significance in residential spaces. Accordingly, users satisfaction and preferences of interior landscaping at Saklı Kent Gated Community were asked during the research.

Therefore, the preferences of uses to have a courtyard, pond, vertical garden or such landscape elements in indoor spaces were asked and the users answered that: "That would have been a perfectionist approach" and they stated that it could have been thought in the project phase. Users who opposed this idea indicated that they cannot take care of their own private gardens because of lack of time.



Figure 47: Example of interior landscaping.

No, I have never wanted such thing (Narrative 4)

We would definitely have wanted it! We actually thought about it when we moved into the house such as having a big tree in the middle or a vertical garden on the stairway wall. It will be artificial planting. We are not sure if we can make fresh plants live (Narrative 11)

It would have been great. I actually tried to do it at the bottom of the stairway and planted plants. If it was offered by a professional, I would not have the need to do it by myself. That would have made me much happier (Narrative 12)

I would have wanted it because I cannot touch it now. If I want to have a courtyard now, it is very difficult. You cannot have it done afterwards (Narrative 13)

When the house users were asked the question 'Do you prefer your private garden to be integrated more to the indoor spaces?' most of them stated that they wished the living room and the garden had a stronger connection.

The way it is okay. There is nothing we want to see and cannot see (Narrative 4).

I think this connection exists. I do not need more (Narrative 12).

The interviewees generally said "no" to the issue regarding their preference of natural materials while choosing materials for the house as wall and floor covering, furniture or upholstery. Users with kids and pets stated that it is hard to take care of and to clean natural materials and that the shades of natural materials do not create a sense of fresh space. Some users think that the material choice of these houses which are harmonized with the environment to a large extent should have been natural materials.

No. We prefer materials that are easy to clean and take care of (Narrative 9).

• Elements Of Landscape

• Natural (soft) elements

The interviewees stated that they know which kind of plants to choose before they start landscaping. They said that they aim at using soft landscape instead of hard landscape and that they want to have big gardens with grass and to plant fruit trees. They also noted that they want to arrange their garden as a living space and have fruits and vegetables planted. They think that they can use the green and flowerless plants used in common spaces as a background and use plants with vivid colors and flowers in their garden.



Figure 48: Types of plants from private gardens.

We have not made an arrangement. I want to have grass as much as I can so that children can run and play freely. I want to have vegetables in a corner and a few trees and ornamental plants (Narrative 2).

During the interviews, the type of the plants and their compatibility with regional climate and the soil were emphasized and the resistance of plants in these terms and issues about their maintenance were highlighted. Some house users believe that trees and plants that would require less care and more eligible for the climate of the island

(carob, olive, fruit trees, etc.) would make the landscape look healthier. Another point of view is that plants with flowers and vivid colors where the color green is dominant are not used and thus that causes monotony. Users who stated that the green that was promised during the project phase three years ago has not been done today and that the type of the grass chosen is not resistant and cannot be taken care of since it requires much water. Users stated that the trees which are planted are located very distant from each other and believe that if they were planted in groups, they would have increased the visual quality of the landscape.



Figure 49: Types of plants from common green spaces.

Plants that require less care and water such as fruit trees, carob tree, and olive tree could be planted. Plants eligible for the conditions of the country could have been planted as well (Narrative 7).

I wish the trees were those that could have been more resistant to the climate of Cyprus. These trees are very sensitive (Narrative 8).

There could have been plants with more flowers. There are photinias but we have not seen them blossom (Narrative 4).

No, they could have been planted in groups. They grow up separately. We are happy with the type (Narrative 9).

It could have been more colorful. They could have planted plants that require less water (Narrative 15).

I like the type of plants. Flowerless and green plants were used the most. Planting in common spaces is a background for my private garden. I can use plants in any colour (Narrative 12).

It could have been more beautiful. There could have been ornamental plants and a corner for tropical plants. They are very messy in terms of location and I think they are ordinary (Narrative 13).

I am happy with it. I choose my plants from those used in common space (Narrative 1).

House users generally mentioned that they like to have potted plants and they added that those plants have a strong therapy effect and that they love spending time on plants. They complained about the fact that they can never have potted plants since they cannot allocate the time needed for their care and that they can neither use indoor spaces nor outdoor spaces very much. They addressed that they have established a system that takes care of itself and by indicating that potted plants cannot benefit from such system, they use these kind of plants on several places. Users who have pets within the house or in their private garden said that they can never choose such plants and that animals damage the plots.

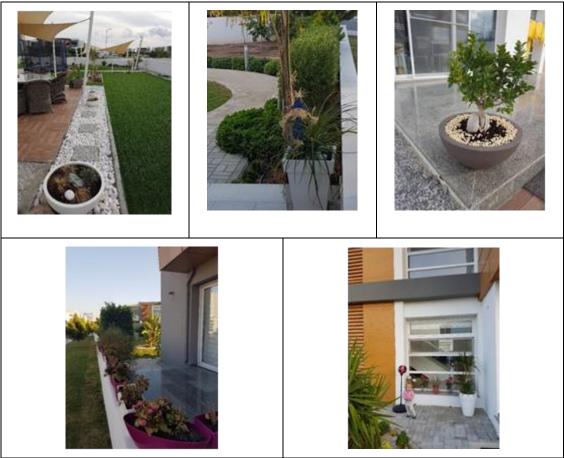


Figure 50: Examples of potted plants.

I do not like it in the house but I have some plots in the garden. I do not like it to be in separate places and look messy around the house (Narrative 1).

Yes, I have always liked it. I think that indoor plants create a therapy effect. Taking care of them and touching their leaves is relaxing (Narrative 16).

Yes, I love colorful plants. I also love plotted plants. The garden looks good since the plants with flowers are seasonal. I can carry them anywhere I want (Narrative 15).

I think it is hard to take care of them. We wanted to have a system that can look after itself. We have no time and we go on vacation very often. Plotted plants need care (Narrative 13).

The distribution of soft and hard landscape used in common spaces is found to be balanced by the users. Some house users stated that spaces designed with soft landscape cannot reach their greenest form in any season as they do not receive adequate care. It was expressed that the majority of common spaces should be designed with hard landscape. On the other hand, interviewees who thought that the distribution is in a balance said that hard landscape is used where necessary in terms of functionality and that there is no need for more. In addition to these, users agreed that the amphitheater located in the common space affects its location negatively based on its size and height.



Figure 51: Soft and hard landscape used in common spaces.

It could have been better to have grass and grass that comes out of sawn stones (Narrative 5).

The distribution of soft and hard landscape in common spaces is balanced (Narrative 10).

The users mentioned heavily that they prefer soft landscape to hard landscape in your private garden. They stated that they do not prefer hard landscape apart from functional needs such as the pool, pergola, sunbathing area, walking trails and storage, and using those elements at the minimum level where possible.



Figure 52: The user's preference of soft landscape and hard landscape in their private garden.

We do not have a specific choice. It would be good to have them both (Narrative 7).

We dream of things such as walking trails and pergolas. We probably will have a balanced distribution (Narrative 4).

Soft landscape I guess. I want to have grass even around the pergola. We have a play house in the garden. The base of it is concrete. Terraces are adequate in terms of hard surfaces in the garden (Narrative 15).

Since I want to live in my garden, there are some spaces which should be designed with hard landscape. However, I love grass. Simplicity is good. I prefer to have soft landscape more (Narrative 11).

I think that both should be used. That's how I did it based on the necessities (Narrative 13).

• Artificial (hard / manmade) Elements

Users who considered water elements such as waterfalls and water pools used in common spaces mentioned that they are happy that such landscape elements are located at the site entrance. While expressing that this is an equitable approach, all residents stated that they have had the chance the experience these landscape elements visually. The interviewees stated that they spend time on sitting elements located around these arrangements and that they love looking at the waterfall and listening to it. They also indicated that lighting these elements at night have added extra meaning to them. Moreover, users emphasized that small water pools located beside the waterfall have no visual effect. They complained about the height of the pool and expressed that the water inside the pool is not dynamic and that they are stable water pools and thus they make no difference for the users when they are walking or in the car.



Figure 53: Water elements such as waterfalls and water pools used in common spaces.

I think that the waterfall is nice. It looks romantic but we have not noticed the small ponds very much (Narrative 6).

It makes it look prestigious but people neither notice nor use them. No one sits there (Narrative 2).

Waterfall is beautiful but ponds are not that attractive. I wish there were fountains (Narrative 4).

The location of the waterfall is nice. Sitting and watching and listening to it is a good thing but it is not necessary to have the small pools. I think that they are ineffective and very deep. They are not dynamic (Narrative 15).

Use of additional semi open spaces such as pergolas or a similar seating place in the private garden were stated that these type of landscape elements would block the view and ruin the harmony of the garden, some users indicated that this type of functional elements are needed to make the garden live. While the private garden of houses is perceived as a space to look at by some users, some users think that it is a place to eat and drink, and arrangements that will be affected from bad climate conditions the minimum during these activities will affect the quality of life positively. Some users mentioned that they do not want spaces covered on top in their private garden, that they already have these spaces indoors, and that they want to lay on the garden furniture on the grass to feel the sky.

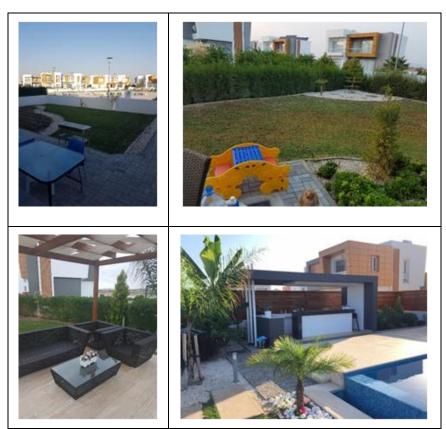


Figure 54: Example of semi open spaces such as pergolas in the private garden.

I do not think of having a pergola. I will not waste the space in my garden with such thing. I dream of garden furniture located on the grass but it will not be a space covered on top (Narrative 3).

I do not want to allocate space for a pergola or any tall element in my private garden. Such behavior would block my relation with the common space at the back. I want nothing to block my view while I am looking at the common space from the house. This relationship is very important for me. This was done by some houses and they ruined the garden. It affects my view negatively (Narrative 10).

I will not have pergola or similar seating area done in the garden. For me, the garden is a space to look at. I think that spaces allocated for pergolas in big gardens occupy unnecessary space (Narrative 12).

I do not have it now but I want to (Narrative 1).

We will have it done in a corner of the garden for barbecue (Narrative 14).

There is a bar and pergola. I love using the garden in parts (Narrative 13).

The interviews have shown that private gardens have no pool in general. While house users stated that they do not think that the pool is safe because they have kids, they also added that they will have a pool done in the following years. Some house users mentioned that they do not have such need and will not have it done since there is pool in common spaces. There are some users who think that spaces which require hard landscaping such as pools in the garden, walking trails, sunbathing areas, balance tank and machine rooms cause a gradual decline in green spaces and there are some users who say that they cannot think of a garden without a pool.



Figure 55: Landscaping such as pools in the garden.

We do not have it now because of the kids but we plan to have in the future (Narrative 9).

It is not only about having pool. Arrangements around the pool are also very important. Without them, pool does not have a meaning. We will have a pool when we can get both done at the same time (Narrative 11).

Narratives regarding the adequacy of outdoor furniture that are used in common spaces were emphasized that, especially those around the pool and parks, are inadequate and stated that the lack of elements such as seating, resting, sunbathing and shadowing decrease the use of spaces.



Figure 56: Lack of outdoor furniture in common spaces.

It is one of the reasons why we do not use pools (Narrative 2).

Yes for parks but no for pools (Narrative 9).

I do not use pool very often but I see that people have no space around the pools to put their towels. They carry chairs (Narrative 10).

I have not noticed it (Narrative 11).

Those who use them can give a better answer. I do not know (Narrative 13).

In addition to the adequacy of furniture's and opinions about pools, families stated that they have limited in the use of parks for their children because of the lack of shadowing elements in the parks in common spaces. While some interviewees said that it is not a big problem, some stated that they take their children to the park at specific hours based on the climate.



Figure 57: Lack of shading elements in the parks.

There should have been (Narrative 16)

I think that it is the most necessary thing (Narrative 12)

3.3.4 Opinions of Users from Landscaping Of Saklı Kent Gated Community

The users were asked about their satisfaction with the landscaping in Saklı Kent Gated Community, and they stated they are mostly happy about it. Since such type of gated communities is not popular in TRNC, they mentioned that they do not have the chance to compare it to any other similar site.



Figure 58: General view of common spaces.

We are very happy. It is very beautiful in comparison to others (Narrative 6).

General landscaping is adequate starting from the entrance of the site. We are only not happy about the size and the location of the amphitheater (Narrative 8).

There are not many of these sites. I cannot compare it. But if I have to compare it in general, I am happy with it (Narrative 13).

When users were asked about the satisfaction in living in Saklı Kent Gated Community they responded positively. The fact that there are no surprising structures or people, safe and well-ordered environment, necessary care for green spaces and the maintenance of green spaces satisfy the house users.



Figure 59: General view of common spaces

I am happy about it. I think that it is designed as a real site. The distance between houses is good (Narrative 4).

It is 50%. It is controlled in terms of traffic and landscaping (Narrative 9).

Gated Community is something we especially wanted. We have a land that looks over the sea but we knew the structure and knew that we would not face with structures and people out of blue (Narrative 10).

Moreover, their level of satisfaction about the utilization of common green spaces were stated as that pools, tennis courts and parks are mostly used by children and that these spaces are sometimes used by adults for walking, riding a bike and walking their pets. The frequency of families with children staying around the park and usage frequency of such spaces by them depend on the age of their children. Families with little kids stated that they spend time at the park or sit around the pool to keep an eye on their children. They also noted that they use these spaces less or do not use at all as children grow up and reach an age which they do not require an eye to be kept on. In general, users said that they do not prefer using the pool with everyone and that climate conditions affect the use of these spaces negatively. They expressed that spring season where outdoor spaces are used more and experienced less under climate conditions of the island, and the fact that summer is very hot and winter is cold do not provide the opportunity for the use of open spaces and that climate conditions affect the use of open spaces negatively.

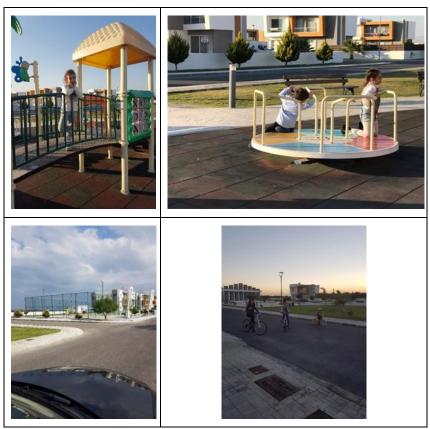


Figure 60: General view of common spaces.

Kids use the park very often. We have no private pool in our garden. Common pool is used very much but I do not use it. I ride bike when I have time (Narrative 15).

When I take my son to the park, I have the chance to see and talk with other families. I had to be in the park with my son because of his age but now he can go alone. I think I will have the same conversations with families when I will take my daughter to the park next year (Narrative 12).

Still, house users expressed that pools in common spaces are generally used by children and that adults spend time there to control their children. House users who have private pools stated that they rarely use common pools. Interviewees noted that they find the use of pools by many people unhealthy, prefer the sea to the pool and let their children use the pool as they believe that it helps their children socialize. It is stated that one of the biggest reason why pools in common spaces are not used is because of the fact that no necessary arrangement is made around the pool (sunbed, shadowing element, café, etc.).

It was emphasized that the pool around the apartments is used more than the pool located around semi-detached houses. They drew the attention to the fact that apartment users have more need and the urge to go out in comparison to users of detached houses and indicated that the population difference where apartments is located creates the difference in use. Moreover, they mentioned that it is wrong to have the child and adult pools at the same levels as the road and parking lot. They expressed that having a single pool with side services instead of two separate pools could increase the use of the pool.



Figure 61: Example of pool in common spaces.

I do not think that the location is good. It could have been used more if a bigger pool were made for the whole site (Narrative 4).

We use the pools of semi-detached houses for our children. If it was up to me, I would not have used the pools. We have never used the pool around the apartments (Narrative 9).

I do not and I have a pool in my garden. I do not prefer using pools that are used by many people (Narrative 13).

We do not use it actively. We have been a few times but did not go after that. There is no landscaping! No shadow! No shower! In addition, it is not big enough to be used by many people. This is one of the reasons that we do not go to the pool. They are like ponds. It is convenient for the capacity of semidetached houses. I think that it is not suitable for other detached houses. Spaces allocated for general spaces are big. The pool located around semidetached houses could have been bigger (Narrative 7).

Satisfaction of interviews regarding playgrounds highlighted by the opinions that shows playgrounds in common spaces are actively used by the children. The fact that there are no shadowing elements in the design of parks is one of the reasons that make families unhappy. Families who think that summer is the most suitable season for parks concern about the fact that excessive heat during summer can encounter health problems for children and thus they limit the time children spend in park. Site users emphasized that a cover is need for park toys both in summer and in winter to maintain their durability. Families with no kids stated that they use these spaces hardly ever and the fact that the surroundings of the parks are not enclosed with any bordering element, they decrease the safety ratio of parks for families. It was added that parks should have been located in a space far from traffic.

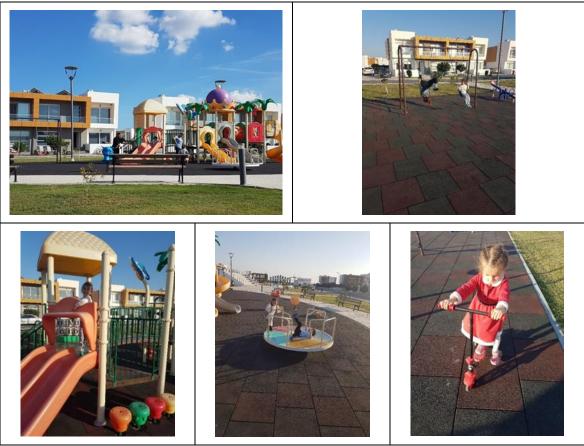


Figure 62: Lack of bordering element in the parks.

The only complaint about parks is that they open onto roads on four sides. It is dangerous for children. In terms of location, it could have been better if it were built away from houses and would be safer around common spaces. I cannot let my children go to the park alone (Narrative 7).

Yes, my son uses it actively. Next year, my daughter will reach the age where she can go to the park. Then, I will use the park actively again (Narrative 12).

As the last concern but not the least, when users were asked about the location and the size of terraces and balconies, they stated that terraces located on the ground floor and facing their private garden are small and look as if it were in pieces. These terraces are combined and extended by users. Users who have not done such change until now expressed that they will make such arrangement. They added that people go out to the terrace through the kitchen. Users emphasized that the terrace in the front façade is used less in comparison to back façade but that it is needed for street perception. They mentioned that terraces that open onto common use and private garden play an important role for the space to be luminous.



Figure 63: Examples of the location and the size of terraces.

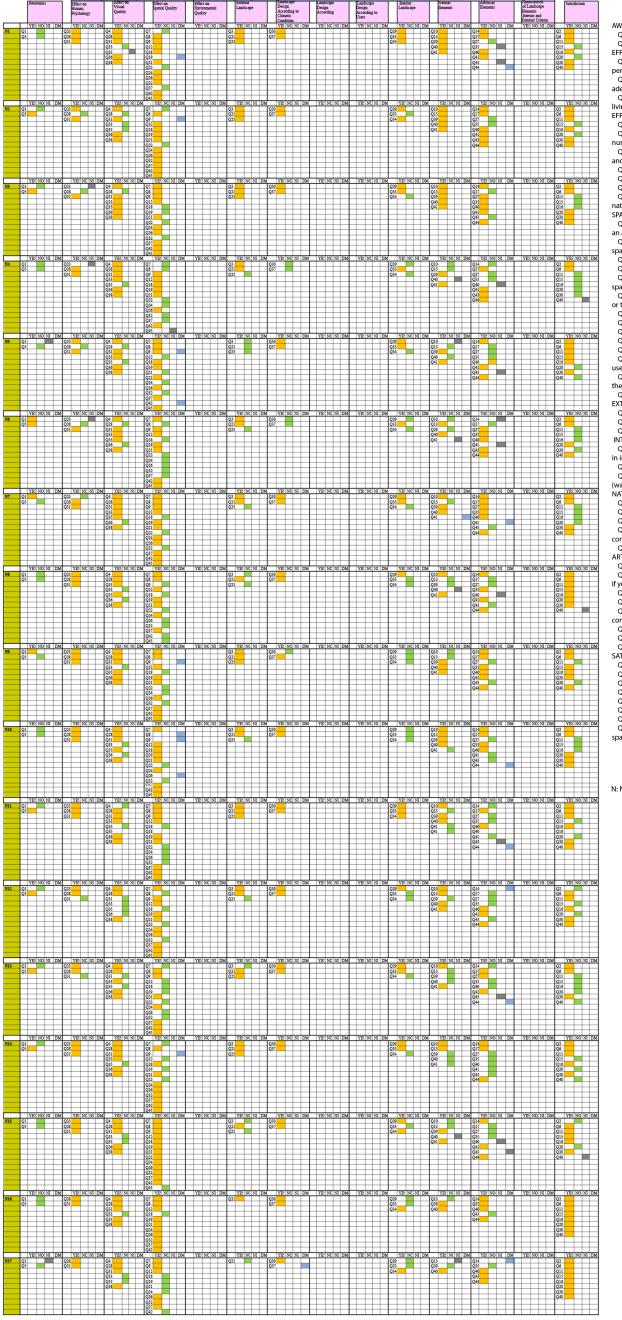
We expanded the terrace that opens onto kitchen around 1.5 meters. It is not enough for having a meal. I think that sizes of others are okay (Narrative 14).

We never use the balcony in the front. We combined the two terraces at the back but we do not use it through the living room but through the kitchen (Narrative 13).

Table 3 below shows the summary of the findings as a result of decoding of the narratives in line with the developed framework as a result of the literature review. Accordingly, it is obvious from this table that users pointed out the need for landscape in housing areas due to the significance of landscape on the spatial quality at most and visual quality respectively more than its effect on the human psychology. Moreover, need for exterior landscape is noticed more than the need for interior landscape to be used as a type of landscape in these areas. In terms of elements of landscape, users pointed out that they prefer to use and perceive soft landscaping elements more than hard landscaping elements. Their opinions about the overall quality of landscaping in Saklı Kent Housing are positive as they explored their satisfaction from the existing design and articulation.

The results of this narrative research will be helpful to discuss the significance, use and need for landscaping in gated communities. Furthermore, it will also help to determine the issues that are needed to be taken into consideration during the landscape designing of gated community areas that is mentioned in the conclusion of this research.

Table 3: Evaluation Results



AWARENESS OF USERS Q1. Do you know what the word landscape means? Q5. Have you ever lived in a collective housing model before moving to Saklikent Sitesi?

EFFECTS ON HUMAN PSYCHOLOGY Q23. Do you think whether windows and balconies on the first floor are effective for the perception of the environment?

Q28. Is the openness of windows and doors located on the ground floor of the house has

adequate number and size to perceive the outdoor space? Q31. Glass doors that open from indoor spaces onto outdoor spaces are located in the living room and the kitchen. Does this plan strengthen the bond between you and the garden? EFFECTS ON VISUAL QUALITY

Q4. Is the landscaping promised one of your reasons for choosing Saklikent Sitesi as a living space? Q28. Is the openness of windows and doors located on the ground floor of the house has adequate number and size to perceive the outdoor space?

number and size to perceive the outdoor space? Q31. Glass doors that open from indoor spaces onto outdoor spaces are located in the living room and the kitchen. Does this plan strengthen the bond between you and the garden? Q33. Do you prefer your private garden to be integrated more to the indoor spaces? Q35. Is the lighting in common spaces adequate to perceive the landscape? Q36. Devendents a longeneities data is use random and lickton it?

Q36. Do you plan to have landscaping done in your garden and lighten it? Q38. Do you find to have landscaping done in your garden and lighten it? Q38. Do you find the coating materials used in the facades of the houses compatible with the nature in terms of colour? Are you happy with its location and type of its usage? SPATIAL QUALITY

Q7. Do you agree with with the idea that common spaces in collective housing sites create

a a troop of a grant matrix the task at a common space in concern to be a grant of the site life? Q8. Did you pay attention to the distance between the location of the house and common spaces when choosing the house?

Q9. Did you pay attention to have a big private garden when choosing the house?

Q12. Do you think whether the m2 allocated for common green spaces is big enough? Q18. Have you ever thought of converting the terrace on the ground floor to a semi open space with the use of glass or a similar material to see the garden? Q19. Are you happy with the fact that house entrance is not disengaged from the pavement

or the road?

Q21. Do you frequently use the terrace on the ground floor? Q22. Do you frequently use the terrace on the first floor?

Q24. Do you use your private garden frequently? Q26. Do you want to have your terrace covered on top?

 Q22. Is kitchen the indoor space that you spend the most of your time in?
 Q37. Do you prefer the garden furniture you use in open or semi open spaces to be used in every season?

Q42. Do spaces such as kitchen where eating and drinking activities take place direct you towards the use of outdoor spaces? Q45. Do you need an extra storage space for gardening equipments?

EXTERIOR LANDSCAPE

Q3. Do you want to be offered landscaping for your private garden? Q21. Do you frequently use the terrace on the ground floor? Q25. Have you had landscaping done for your private garden?

INTERIOR LANDSCAPE

Q29. Would you like to have a courtyard, pond, vertical garden or such sandscape elements in indoor spaces? Q33. Do you prefer your private garden to be integrated more to the indoor spaces?

Q34. Were you willing to prefer natural materials while choosing materials for the house? (wall and floor covering, furniture, upholstery)? NATURAL (SOTT) ELEMENTS Q10. Do you know which type of plants to choose for your private garden?

Q13. Are you happy with the type of plants used in common spaces? Q39. Do you like potted plants in indoor and outdoor spaces? Q40. Do you think whether the distribution of hard and soft landscape used in

common spaces is balanced? O41. Do you prefer soft landscape to hard landscape in your private garden?

ATTIFICIAL (HARD / MANMADE) ELEMENTS Q14. Do ponds used in common spaces satisfy you visually? Q17 Do you plan to have a pergola or similar seating area built in your garden

if you do not have one?

Q27. Do you have a private pool in your private garden? Q35. Is the lighting in common spaces adequate to perceive the landscape? Q40. Do you think whether the distribution of hard and soft landscape used in

common spaces is balanced?

Q41. Do you prefer soft landscape to hard landscape in your private garden? Q43. Is the outdoor furniture used in common spaces adequate? Q44. Do you need shadowing elements in parks located in common spaces? SATISFACTION OF USERS

Q2. Are you happy with the landscaping as a house user of Saklikent Sitesi? Q6. Are you happy to live in a mass housing model like Saklikent Sitesi?

Q11. Do you use common green spaces?

Q15. Do you use the pools in common spaces?

Q16. Do you use the playaround in common spaces?
Q20. Are you happy with the location and the size of terrace and balconies designed?
Q30. Do you prefer outdoor spaces to indoor spaces in spring and summer?
Q40. Do you think whether the distribution of hard and soft landscape used in common

spaces is balanced?

N: NARRATIVE YES NO NO IDEA DOESN'T MATTER

Chapter 4

CONCLUSION

Gated communities offers the opportunity for many houses to be arranged by plan schemes in detail with same plans. The relation between structures is the main issue that should be solved in gated communities. Environment is a concept that includes housing, housing area and neighborliness, and is related with social and economic components. Furthermore, natural or physical environment affects human behaviors and increases awareness. In this regard, environment-human relationship addresses to the integrated relationship between human behaviors and the environment. The main reason that distinguishes living environments of houses from each other is the difference in value systems. Different living environments are emerged based on the understanding of meaning and communication of users. Living environment of houses is the main area of living designed to increase satisfaction by meeting the needs and expectations of users. House is not only a physical space where need for shelter and other basic needs are met in the daily life but also the reflection of socioeconomic status of individuals or house users and their emotional bond between themselves and the environment they live in (Francescato, 1998, and Kellekci and Berköz, 2006:166). A qualitative house environment is parallel to the standard of living. Well-designed and well-planned house environments increase the standard of living and satisfaction. Satisfaction on house environment is related to many variables such as landscape, quality, security, status of houses and livability.

Features of the house and its surroundings are interpreted differently by each individual and thus, satisfaction is based on how these are perceived as well as the current status (Lu, 1999).

For instance; when the satisfaction levels of high and low socio-economic groups are compared, it is observed that residence satisfaction between low socio-economic groups decreased based on income and low status (Tognoli, 1987). Satisfaction of high socio-economic groups on the house and its surroundings is related with increasing house quality (Fried, 1982). Another factor for satisfaction is physical characteristics of the house. Security perception in a space allows the movement of residents in peace freely and provides satisfaction accordingly (Baker, 2003:70).

Social surrounding makes a great contribution to satisfaction. Social surrounding includes the individual, household and relations with acquaintances, interactions and social activities (Baker, 2003). A well-arranged house surrounding promotes people to live there and increases standard of living, and satisfaction with correct planning increases accordingly. In gated community, the house should not only be designed by considering the indoor space but also its surroundings.

In the light of conversations held in Saklı Kent Gated Community and the findings of these conversations, it is concluded that house users neither experienced such gated community model before Saklı Kent Gated Community in terms of landscaping nor know the exact meaning and context of the word landscape.

It is emphasized by house users that transparent surfaces or openness that connect indoor spaces with outdoor spaces are psychological necessities and such plans that help to perceive the outdoor landscape make a great contribution to indoor space quality.

In open space arrangements of houses, it is found that factors increasing visual and spatial quality include properly designed elements such as landscape, openness, lighting and materials.

It is stated that the adequacy of size and form for private and common open spaces that increase spatial quality, utilization of or protection from environmental factors, socializing and elements that connect indoor spaces with outdoor spaces play an important role for the creation of successful landscapes. It is noted in the narrativetype conversations that appropriately designed open space landscape is as important as closed space landscape.

It is determined that it is necessary to consider various factors such as climate, physical and environmental conditions for the plants, trees and grass planted within the communal areas of Saklı Kent Gated Community and that house and landscape users prefer natural landscape if it is planned and implemented in the correct way. It is clarified that side services required by artificial landscape elements can be the corner stones of landscape arrangements if provided.

Lastly, it is supported that the success of Saklı Kent Gated Community landscape can be achieved with the above stated factors. It is concluded that these factors are not completely provided in the present situation and the landscape promised during the sale phase is not offered to the house users of Saklı Kent Gated Community. Along with the above stated results, this study concluded that with the vision of the developer and contribution of the professionals, Saklı Kent Site has been achieved a proper landscaping as a result of a holistic approach and evaluated positively by its users. Furthermore, this study can make a further recommendation that there must be a holistic approach during the design process; landscape should not be thought as a secondary step but should be integrated into the process of design from the beginning as one of the main concepts.

This study could be enriched in the further stages with a more comprehensive study in order to reveal the satisfaction of users in detail to be able to propose and develop a design guideline for the landscaping of gated communities.

In today's world sustainable architecture and the significance of the sustainable environments has been witnessed by all the humanity. All interventions and design of occupational actors has played an important role in the creation of these frameworks and this thesis aims to create awareness for all the parties of this process.

This research can be a beneficial source for other researchers who want to work further in this field and professionals from the field of architecture and landscape design so that more emphasis could be put on landscaping of the housing sites.

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APPENDICES

Appendix A: Saklı Kent Site Plan

Site plan

Appendix B: Example Interview Questions and Answers

Demographical Information

Name: Narrator 12 Surname: Gender: Female Age: 34 Country: Republic of Turkey Occupation: Trade House No: Seasons which the outdoor spaces are highly used: Spring, Fall, Summer Time of return to house from work in summer: 10.30 – 21.00 Time of return to house from work in winter: 10.00 - 19.00 Period lived in the house: 2.5 years Children: (boy) 9 years old, (girl) 1.5 years old

Q1. Do you know what the word landscape means?

Garden decoration. Composition and decoration of plants in the garden.

Q2. Are you happy with the landscaping as a house user of Saklı Kent Gated community?

I think that it is planted at a maximum level. Hard landscape could be used more. I like the way it is. There are banana trees in the entrance to the communal area and I love them. It could not have been much greener. There are plants between the apartments.

Q3. Do you want to be offered landscaping for your private garden?

I would have preferred if landscape project had been offered. The house can look complete when the garden is completed.

Q4. Is the landscaping promised one of your reasons for choosing Saklı Kent Gated community as a living space?

It was very important for us that it would be completed at the same time with the surroundings of the house. I liked the fact that the surroundings of the house would be clean and that there would be no construction waste left.

Q5. Have you ever lived in a gated community model before moving to Saklı Kent Gated Community?

I lived in a similar site in Turkey before. I was very happy with it. We did not look for any other place when we realized that they have the same features.

Q6. Are you happy to live in a gated community model like Saklı Kent Gated community?

Safety of the site was our priority. Integrity is important. View is my first choice. For instance, the variety on garden walls incredibly irritates me. One model, one material, one size, one colour should have been offered. Although it has quality, it causes diversity. The texture is the same in general. I like this.

Q7. Do you agree with the idea that common spaces in gated community sites create an atmosphere for socializing by contributing to the site life?

Gated community is good for socializing. In addition to communal areas, it enables socializing while walking since it is a site. It is much better that it is supported with common activity areas.

Q8. Did you pay attention to the distance between the location of the house and common spaces when choosing the house?

No, I wouldn't have wanted it. I am happy with the location of my house.

Q9. Did you pay attention to have a big private garden when choosing the house?

The thing that we did not pay much attention while buying the house was the form of the garden. A big space is allocated for it but you cannot perceive it while sitting on the terrace.

Q10. Do you know which type of plants to choose for your private garden?

Our garden is divided in terms of its form. I used the area that looks more separated with fruit trees. I planted roses and flowering plants. We covered the rest of the area with grass.

Q11. Do you use common green spaces?

I had the chance to see and talk with other families when I was waiting for my son at the park. I had to be in the park with my son because of his age but now he can go alone. I think I will have the same conversations with families when I will take my daughter to the park next year.

Q12. Do you think whether the m^2 allocated for common green spaces is big enough? I think that it could not have been more. It is adequate and more than enough.

Q13. Are you happy with the type of plants used in common spaces?

I like the type of plants. Flowerless and green plants were used the most. Plants with flowers caused crowding of plants. With this, everyone can plant their gardens with colourful plants or trees. Planting in common spaces is a background for my private garden. I can use plants in any colour I want.

Q14. Do ponds used in common spaces satisfy you visually?

It was not necessary to have ponds in communal areas but it adds a visual diversity.

Q15. Do you use the pools in common spaces?

We have never been to the pool around the apartments. We used the pool of semidetached houses 3-4 times. We used to use it rarely when we first moved but since then, we have never used it. I think there is no garden arrangement around the pool! No sunbed! No umbrella! No shadowy place! Therefore, there are not usable. It should have been projected in the beginning. Outdoor space arrangements are already made. Specific plants were planted. Arrangements around the pool could have been made if they were proposed in the project phase. A few people tried to put some umbrellas but we prevented this. It was to save the day but if we allowed it, it would have looked very bad. At least we prevented visual pollution.

Q16. Do you use the playground in common spaces?

Yes, my son uses it actively. Next year, my daughter will reach the age which she will be able to use it. Then, I will use it actively again.

Q17 Do you plan to have a pergola or similar seating area built in your garden if you do not have one?

I will not have pergola or similar seating area done in the garden. For me, the garden is a space to look at. I think that spaces allocated for pergolas in big gardens occupy unnecessary space.

Q18. Have you ever thought of converting the terrace on the ground floor to a semi open space with the use of glass or a similar material to see the garden?

I will never close my terraces with elements like glass. I prefer open or semi open terraces more.

Q19. Are you happy with the fact that house entrance is not disengaged from the pavement or the road?

I have no problem with that my entrance door is not disengaged with the road. It is okay for me not have a garden entrance door. This model is a successful choice for this site.

Q20. Are you happy with the location and the size of terrace and balconies designed? I am happy with the location. We could not perceive the size of terraces during the construction phase. We agreed that they are small after they were completed. But we postponed to enlarge the terrace because we did not want to have any construction waste anymore. I will have it done as soon as I can.

Q21. Do you frequently use the terrace on the ground floor?

Backyard is more private and we prefer it more. Since it is close to the kitchen, I use the terrace located around the kitchen. There is a terrace that opens onto the backyard but we do not prefer using it. We do not use the terrace in the front at all.

Q22. Do you frequently use the terrace on the first floor?

First floor terraces have no place in my life.

Q23. Do you think whether windows and balconies on the first floor are effective for the perception of the environment?

Balconies are an obstacle for the relationship between indoor and outdoor spaces. I am happy with the fact that I have big windows but it could have been better if they were French balconies.

Q24. Do you use your private garden frequently?

We especially use the backyard.

Q25. Have you had landscaping done for your private garden?

We did not have it designed. We planted the trees as the way we wanted.

Q26. Do you want to have your terrace covered on top?

I wish the balcony at the back was covered on top but I think that it will ruin the view. I actually need it very much. It is not needed in the front because we do not sit there. When I find an appropriate shadowing element, I will have it placed on the balcony.

Q27. Do you have a private pool in your private garden?

We could not have a private pool done because of the form of the garden. The garden form is not eligible for a small pool at a scale of 4/8. Actually, pool can be done but side requirements needed by the pool cannot be met. Thus, we preferred not to have it. Side requirements are places for sunbathing, walking trails and green spaces that are combined with these. If we had the pool and walking trails done, we would not have seen the green. We preferred to see the grass.

Q28. Is the openness of windows and doors located on the ground floor of the house has adequate number and size to perceive the outdoor space?

Spaces on the ground floor are adequate for landscape perception. I can live and feel the street in my house since the curtains and windows of the dining room are open at all times. Spaces are adequate and you understand that you live in a house with a garden. As it can be understood from various places in the house, the entrance also has this perception. That is the reason why we wanted to have a pool in our garden. We thought that the pool and lights of the pool would look good at night but unfortunately, we could not have it done.

Q29. Would you like to have a courtyard, pond, vertical garden or such sandscape elements in indoor spaces?

It would have been great. I actually tried to do it at the bottom of the stairway and planted plants. It was the only place that could handle the construction waste so I made it there. If it was offered by a professional, I would not have had the need to do it by myself. That would have made me much happier.

Q30. Do you prefer outdoor spaces to indoor spaces in spring and summer?

Outdoor spaces are our first choice. We sit and eat outside based on the season.

Q31. Glass doors that open from indoor spaces onto outdoor spaces are located in the living room and the kitchen. Does this plan strengthen the bond between you and the garden?

There are 2 terraces at the back façade of the house. They are inadequate for us in terms of size. The glass door in the kitchen is the entrance I use the most to go the garden. It could have been better if there were one terrace with an exit both from the living room and the kitchen.

Q32. Is kitchen the indoor space that you spend the most of your time in?

If we do not sit in the outdoor space, we generally prefer to sit in the living room.

Q33. Do you prefer your private garden to be integrated more to the indoor spaces? I think that this integration is provided enough. I do not need more.

Q34. Were you willing to prefer natural materials while choosing materials for the house? (Wall and floor covering, furniture, upholstery)?

Natural materials or shades were not used much in indoor space coating because they do not have simplicity. These type of materials cause mobility. I love changes and easy materials. I prefer livening up a place with accessories instead of natural stones. Q35. Is the lighting in common spaces adequate to perceive the landscape?

Lighting in communal areas is adequate but if there could be a separate lighting for landscape, it could have emphasized the plants. They might have looked two times more beautiful.

Q36. Do you plan to have landscaping done in your garden and lighten it?

I do not think of having a different landscaping done. The arrangement we have done by ourselves until now is adequate. However, I will have a lighting project done for my private garden.

Q37. Do you prefer the garden furniture you use in open or semi open spaces to be used in every season?

I prefer the garden furniture which I do not have to take them in or out based on seasons. I want to have them there every season.

Q38. Do you find the coating materials used in the facades of the houses compatible with the nature in terms of color? Are you happy with its location and type of its usage?

I think that materials and colors used on the exterior match with the landscape.

Q39. Do you like potted plants in indoor and outdoor spaces?

I do not prefer to grow plants in pots. Although they can be used as accessories, I do not like plants in pots.

Q40. Do you think whether the distribution of hard and soft landscape used in common spaces is balanced?

I think that the space allocated for hard and soft landscape in communal areas is balanced.

Q41. Do you prefer soft landscape to hard landscape in your private garden?

I do not need hard landscape in my garden except the walking trails.

Q42. Do spaces such as kitchen where eating and drinking activities take place direct you towards the use of outdoor spaces?

Yes

Q43. Is the outdoor furniture used in common spaces adequate? No

Q44. Do you need shadowing elements in parks located in common spaces? I think that it the most necessary thing.

Q45. Do you need an extra storage space for gardening equipment's? It is necessary.

Narrative 1					Narrative 2					Narrative 3					Narrative 4					
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Q37					Q37					Q37					Q37					
Q38					Q38					Q38					Q38					
Q39					Q39					Q39					Q39					
Q40					Q40					Q40					Q40					
Q41					Q41					Q41					Q41					
Q42					Q42					Q42					Q42					
Q43	Г				Q43					Q43					Q43					
Q44	1				Q44					Q44					Q44					
Q45					Q45			1		Q45					Q45	Γ				

Narrative 5			Narrative 6	5	Narrative 7					Narrative 8									
	Y	Ν	NI	DM		Y	Ν	NI	DM		Y	N	NI	DM		Y	Ν	NI	DI
Q1					Q1					Q1					Q1				
02					Q2					Q2					Q2				F
03					Q3					Q3					Q3				F
Q4			+		Q4			-		Q4					Q4				⊢
05					05					05					Q5	+-			⊢
Q6					Q6			-		Q6				_	Q6				⊢
Q7		-	+		Q7		-	-		Q7				-	Q7		-		⊢
Q8		-	+		Q8					Q8				_	Q8		-		⊢
29		_	+		Q9			-		Q9				_	Q9	+			⊢
Q10	+	+			Q10					Q10				-	Q10				⊢
011		-			Q10 Q11	_				Q10 Q11				-	011	_	-		⊢
012					Q11 Q12			-		Q11 Q12				_	Q11 Q12		_		⊢
	+				-	_	-	-		-				_	-	_			⊢
Q13			-		Q13		_			Q13	_			_	Q13	_			⊢
014		_		\vdash	Q14	_				Q14				_	Q14	_	<u> </u>		⊢
Q15					Q15			_		Q15				_	Q15				\vdash
Q16					Q16					Q16				_	Q16				
217					Q17	_				Q17				_	Q17	┻			
218					Q18					Q18					Q18				
219					Q19					Q19					Q19				
220					Q20					Q20					Q20				
021					Q21					Q21					Q21				Г
0,22					Q22					Q22					Q22				Г
Q23					Q23					Q23					Q23				Γ
Q24					Q24					Q24					Q24				F
Q25					Q25					Q25					Q25				F
026					Q26					Q26					Q26	+			F
027					Q27					Q27				-	Q27	+			⊢
028					Q28					Q28					Q28				⊢
029		-	+		Q29					Q29				_	Q29	-			┢
Q30		-	+		Q30	_		-		Q30				_	Q30				-
Q31		-	+		Q31					Q31				_	Q31		-		⊢
032					Q31					Q32				_	Q32	_			⊢
			-	$\left \right $	Q32 Q33									-		+-			⊢
Q33										Q33				_	Q33	—			⊢
Q34	-		-		Q34			-		Q34	_			_	Q34	_			⊢
235			-	+	Q35	_				Q35	-			-	Q35	+			⊢
Q36		_	-	+	Q36	+		-		Q36					Q36	┶			⊢
237		_	-	\square	Q37			L		Q37					Q37		<u> </u>		1
Q38		_	1	\square	Q38			-		Q38					Q38				\vdash
Q39					Q39			L		Q39					Q39	\perp			
Q40					Q40					Q40					Q40				
241					Q41					Q41					Q41				
Q42					Q42					Q42					Q42				
Q43					Q43					Q43					Q43	Т			Γ
Q44					Q44					Q44					Q44				Γ
Q45					Q45					Q45					Q45				

Narrative 9				Narrative 1		Narrative 11					Narrative 12								
	Y	Ν	NI	DM		Y	Ν	NI	DM		Y	N	NI	DM		Y	N	NI	DN
Q1					Q1					Q1					Q1	-			
Q2					Q2					Q2			_		Q2				\vdash
Q3		-			Q3		-	-		Q3			_	_	Q3				\vdash
Q4		-	-		Q4		-	\vdash		Q4			_	-	Q4				\vdash
Q.5					Q5					Q5			_	-	Q5				\vdash
Q.6					Q6					Q6			_	_	Q.6		_		\vdash
Q7		-	-		Q7	_	-	-		Q7			_	_	Q7	_	_		+
Q.8		-	-		Q8		-	+		Q,8			_	_	Q.8				+
Q9		-	-		Q9	_	-	-		Q9				_	Q9				+
Q10		-	-		Q10			-		Q10				_	Q9 Q10		-		+
Q10 Q11					Q10 Q11	_		-		Q10 Q11				_	Q10 Q11	_	_		-
			-			_		-						_		_	_		-
Q12			-		Q12		_	-	$\left \right $	Q12				_	Q12	_	_		-
Q13			-		Q13		_	<u> </u>		Q13	-			_	Q13				
Q14		_			Q14				$\left \right $	Q14				_	Q14	+			
Q15					Q15	_				Q15					Q15				
Q16					Q16					Q16				_	Q16				
Q17					Q17					Q17					Q17				
Q18					Q18					Q18					Q18				
Q19					Q19					Q19					Q19				
Q20					Q20					Q20					Q20				
Q21					Q21					Q21					Q21				
Q22					Q22					Q22					Q22				
Q23					Q23					Q23					Q23				
Q24					Q24					Q24					Q24				
Q25					Q25					Q25					Q25				\vdash
Q26					Q26					Q26					Q26				\square
027					Q27					Q27					Q27				\vdash
Q28					Q28					Q28					Q28				-
Q29	┢				Q29					Q29			_	_	Q29				+
Q30					Q30					Q30			_		Q30				-
Q31			-		Q31		-	+	+	Q31			_	_	Q31				+
Q32					Q32				$\left \right $	Q32			_	_	Q32	+			+
Q33					Q33					Q33			_	_	Q33	+			+
034			-		Q34	_		-		Q34				_	Q34	-			-
Q35			-		-	_		-						_	-	-			⊢
-		_	<u> </u>		Q35		_		\vdash	Q35	-			_	Q35	-			⊢
Q36		_	<u> </u>		Q36	_		-	\vdash	Q36				_	Q36	-			-
Q37		<u> </u>	-		Q37		_	-		Q37					Q37				⊢
Q38		<u> </u>	-	\mid	Q38		<u> </u>	<u> </u>		Q38					Q38				
Q39		<u> </u>	-	\mid	Q39		<u> </u>	<u> </u>		Q39					Q39				
Q40					Q40					Q40					Q40				
Q41					Q41					Q41					Q41				
Q42					Q42					Q42					Q42				
Q43					Q43					Q43					Q43				
Q44					Q44					Q44					Q44				
Q45					Q45					Q45					Q45				

Narrative 13				Narrative 1	Narrative 15					Narrative 16									
	Y	Ν	NI	DM		Y	Ν	NI	DM		Y	Ν	NI	DM		Y	Ν	NI	DN
Q1					Q1					Q1					Q1				T
0,2					Q2					Q2					Q2				\vdash
Q3					Q3					Q3					Q4				\vdash
Q4					Q4					Q4					Q5				+
05					05					Q5					Q6				\vdash
Q6					Q6					Q6					Q7				\vdash
Q7					Q7					Q7				_	Q8				┢
Q8					Q.8					Q8					Q11				+
Q9			+		Q9			+		Q9				_	Q12				+
Q10			-		Q10			-		Q10				_	Q13				┢
Q11					Q11		-	-		Q11				_	Q14			-	┢
012					Q12					012				_	Q15		-		┢
Q12 Q13					Q12 Q13					Q12 Q13				_	Q15 Q16		-		⊢
Q13 Q14	_				Q13 Q14	-	-	-		Q13 Q14	-			_	Q10 Q18				⊢
Q14 Q15	_				Q14 Q15					Q14 Q15		-			Q18 Q19			-	┢
Q15 Q16								<u> </u>				-		_	Q19 Q20		-		⊢
-	_		-	-	Q16	_	-	-		Q16					-	_	-		┝
Q17	_				Q17		-	+		Q17	_				Q21 Q24		_		┢
Q18	_				Q18					Q18	_				-		_	-	┝
Q19	_		-		Q19	_		-		Q19	_				Q26		_	<u> </u>	╞
020	_				Q20			<u> </u>		Q20	_				Q28				╞
Q21	_		-		Q21			-		Q21		_		_	Q29				╞
Q22	_		<u> </u>		Q22	_		<u> </u>		Q22	_				Q30		_		⊢
Q23	_	_	-		Q23		_			Q23		_		_	Q31				┢
Q24		_			Q24		_	-		Q24					Q32				╞
Q25	_	_			Q25		_	_		Q25					Q33			_	╞
Q26					Q26			-		Q26					Q34				⊢
Q27					Q27			<u> </u>		Q27					Q35				⊢
Q28					Q28					Q28					Q37				
Q29		_			Q29					Q29					Q38				
Q30					Q30					Q30					Q39				
Q31					Q31					Q31					Q40				
Q32					Q32					Q32					Q42				
Q33					Q33					Q33					Q43				
Q34					Q34					Q34					Q44				
Q35					Q35					Q35									_
Q36					Q36					Q36									
Q37					Q37					Q37									
Q38					Q38					Q38									
Q39					Q39					Q39									
Q40					Q40					Q40									
Q41					Q41					Q41									
Q42			1	+	Q42					Q42									
Q43					Q43					Q43									
Q44		+			Q44					Q44									
Q45			+		Q45		-	+		Q45				_					

Narrative 17												
	Y	N	NI	DM								
Q1												
Q2												
Q4												
Q5												
Q6												
Q7												
Q8												
Q11												
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Q13												
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