



Evaluation of Planting Design in Interiors in Terms of Basic Design Principles: The Example of Istanbul Zorlu Shopping Center

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Abstract

This study focuses on the importance and value of interior landscaping. Interior landscaping plays a significant role in meeting aesthetic needs in urbanized environments where natural elements are diminishing. Plants are used as natural design elements to complement and enhance artificial spaces. In interior landscaping, it is important to transfer and integrate natural landscapes into indoor spaces. Plants have the ability to shape the environment through appropriate compositions and special designs.

The aim of this study is to evaluate interior landscaping from both technical and aesthetic perspectives. It emphasizes the importance of considering the growth conditions, ecological suitability, and selection of visually appealing containers for the plants used in interior design. The methodology of the research includes a literature review, data evaluation, and the assessment of Istanbul Zorlu Center Shopping Mall as a case study.

This study aims to contribute to interior design by highlighting the technical and aesthetic aspects of interior landscaping. Selecting the right plants, providing suitable growing conditions, and creating visually appealing arrangements are crucial for interior landscaping. The examination of Istanbul Zorlu Center Shopping Mall as a case study emphasizes the implementation of interior landscaping and its relationship with fundamental design principles.

Keywords

Interior Design. Planting Design. Shopping Center. Istanbul Zorlu Center Shopping Mall. Basic Design Principles.

1. Introduction

Today, with rapidly increasing urbanization, the visual texture of the environment is changing. Among large surfaces such as steel structures, glass and concrete, plants from nature have an important place in interior spaces. The use of plants indoors plays an important role in meeting people's aesthetic needs and expectations (Moslehian et al., 2023). Therefore, recognition of the landscape and determination of its visual value become mandatory in decisions regarding land use (Kusak & Kucukali, 2023). Plants play a complementary role, especially in artificially created spaces, as they are natural design elements.

In indoor planting design, it is important that the natural landscape integrates with the interior and integrates

with the space (Bringslimark et al., 2009). Therefore, plants should be used extensively in interior design. However, using too many and different types of plants may cause chaos in the space. Plants should be placed in a way that shapes the space with appropriate compositions and special designs. When plants are placed in certain areas in individual pots, they may be perceived as merely a decorative element and may not create a different landscape design effect in the space. In addition, the use of stones, gravel, water and artificial elements along with plants in the interior visually enriches the design and helps create various landscape effects (Yazgan et al., 2003).

In modern city life, the number of large shopping malls is increasing rapidly, especially in big cities, and people

prefer these areas to spend time. The proliferation of places such as hotels, hospitals and business centers other than shopping malls increases people's interest in natural environments and natural designs. In order to respond to this demand, landscaping needs to be done indoors. In order to make suitable arrangements for the interior, it is necessary to determine the indoor growing conditions of the plants, and take into account ecological conditions and modern and aesthetic flower pots. The indoor and outdoor planting of Istanbul Zorlu Center Shopping Mall, which was chosen as one of the well-known shopping centers in big cities, was examined and evaluated.

2. The aim of the study

The aim of this study is to evaluate the technical and aesthetic aspects of indoor planting, which comes to the fore in interior designs due to today's population growth, crowded city centers and people being away from nature. The suitability of the plants to be used in interior design for indoor conditions, taking into account ecological conditions and selection of modern and aesthetic pots aim to design interior spaces with an appropriate arrangement. Research and analysis show that plants used indoors play an aesthetic and functional role in landscape design. Characteristics of plant material such as color, shape, size and texture are important in indoor plant design. Designers aim to create safe and comfortable environments for individuals, taking into account the physical characteristics of the space.

3. Method

At the beginning of the research, studies containing similar topics were reviewed using methodological processes such as literature review and data analysis. In the second stage of the research, Zorlu Center Shopping Center located in Istanbul, a large metropolis, was selected and examined in terms of planting and visual documentation was made. In the final stage of the research, results and evaluations were made based on the data obtained. At this stage, topics such as plant samples that have suitable environmental conditions and serve purposes, the purpose of indoor plant design, design principles, determining factors and design process were discussed, and plant compositions

and application examples suitable for different interior spaces were evaluated.

As a result, humidity, temperature, lighting, soil and special habitat conditions are provided for plants indoors. Indoor plants are evaluated together with basic design principles such as leafy plants, flowering plants, shape and form. In the contemporary design approach, potted plants that differ according to regions and environments are examined in order to present the plants that are appreciated by the users in the desired way in the interior. Additionally, at this stage, indoor plant uses in Zorlu Shopping Center in Istanbul were investigated in detail.

4. Study area

Shopping malls are considered by researchers to be one of the places where being human is most represented, evaluated based on people's images and behaviors. By observing the signs and meanings in shopping malls, people think that these spaces reflect human experiences such as social interactions, consumption habits and personal expressions. Shopping malls are areas where interaction between different cultures, lifestyles and social groups come together and this diversity manifests itself. Therefore, when people evaluate shopping malls, they look for elements that belong to them and are a part of being human (Yücel Bourse, 2017:166). For this reason, shopping malls can enable us to develop various thoughts on society by making a symbolic analysis.

The fact that in some shopping malls there are more expensive stores as you go up the floors can be explained with the analogy of holiness. Considering the similarity of shopping malls to temples and sacred places, researchers may suggest that the upper floors are reserved for more expensive brands and are harder to reach (Yücel Bourse, 2017:167).

In shopping malls such as Zorlu Center and İstinye Park, some of the luxury stores are located outside the mall or in open areas. Thus, customers are offered a special experience that is different from other stores. In İstinye Park, luxury stores are located closer to the corners instead of the central section inside. This design approach aims to increase the prestige and privilege of stores (Yücel Bourse, 2017:168).

Shopping malls can offer existential values that vary



Figure 1. Zorlu Center Shopping Center Plan



Figure 2. Zorlu Center Shopping Mall

depending on certain attributes. Many shopping malls, especially those described as “luxury”, aim to offer a lifestyle (Sahin & Sennou, 2023). Zorlu Center is one of them. It can be thought that reaching these spaces offers a certain social value and affects people in the context of wealth and social prestige (Yücel Bourse, 2017:168).

Zorlu Center, located in Zincirlikuyu, was opened in 2013. It has a total construction area of 105,000 m². While 10,000 m² of this area is designed as the main square, 12,000 m² is used as a park area. Zorlu Center consists of four high-rise buildings (İhtiyar & Yucel, 2021). Three of these buildings have residential and office functions and have 584 flats between 12 and 22 floors. Another building was designed as a hotel (Çubukçu, 2021:378).

Roof and terrace gardens are one of the options that enrich spatial experiences by offering alternative activity areas to meet the needs of users in living spaces designed in terms of aesthetics and environmental psychology. These types of gardens are combined with design solutions to create green areas where users can have a pleasant time in places designed for purposes other than their original purpose, such as walking paths, parking lots or unused areas. In this way, environments that add meaning and value to the user base are created (Çubukçu, 2021:378).

The importance and value of green areas is increasing in rising buildings around the world, and in Turkey, green space approaches in high-rise buildings are increasing, especially after the 2000s. These approaches include various horizontal and vertical planting practices. Tall buildings themselves chart a path in terms of ecological



Figure 3. Zorlu Center Shopping Mall Inner Courtyard

and sustainability for their environment and users. These practices aim to create a natural atmosphere around buildings, increase green areas and encourage people's interaction with nature. In addition, green areas not only add aesthetic value to buildings, but also provide environmental benefits, improving air quality (Han& Ruan, 2019; Han& Ruan, 2020) , ensuring temperature balance and contributing to energy saving. Therefore, green space approaches are an important step to improve the quality of life in modern cities and create a sustainable environment (Çubukçu, 2021:378).

Planting samples in the inner courtyard of Zorlu Center Shopping Mall were examined on site. The group design consisting of plants seen in Figure 4 is an example of the line element, one of the basic design principles. *Teucrium fruticans* was used in lines. This plant is a type of plant that is green in all seasons and loves sunny places. Due to this feature, it is a design suitable for the inner courtyard, which is intense in sunlight.

The open courtyard of Zorlu Center Shopping Mall is the area where planting work is most intense. One of the basic design principles in planting this area; It is designed harmoniously in terms of line, color, texture, surface, material, material, shape, form, figure-ground, focus, repetition-rhythm, intonation, value, lighting, topography and size-ratio. Interior floral design elements; Solitary and group designs were used.

The *Hymenocallis littoralis* plant seen in the middle area of Figure 4 is a plant species that needs sunlight and is generally grown as an ornamental plant. Its white flowers are seen from mid-summer to late autumn.

It was designed in accordance with the color element, one of the plant design elements, as in the courtyard planting example of Zorlu Center Shopping Mall seen in Figure 5. *Agapanthus africanus*, the blue and white flowered African lily, is a plant variety that is resistant to heat and loves sunny places. The inner courtyard here receives intense daylight, making it very suitable for the space.



Figure 4. Zorlu Center Inner Courtyard Planting Examples

In Figure 6, we can see group design and solitary design together. The use of plants in different forms, shapes, colors, materials and surface textures can be seen in the group design.

Among the plant group, the *Buxus sempervirens* plant is a small tree species that is green in all seasons and is easy to care for. The dwarf paradise bamboo tree is among the group as a special plant species that can take on different colors depending on the season. Positioned



Figure 5. Zorlu Center Inner Courtyard Planting Examples



Figure 6. Zorlu Center Inner Courtyard Planting Examples

within a water pool design, the design creates a special appearance around the walking area.

Figure 7. Zorlu Center Shopping Mall Inner Courtyard Plant Design Example

One of the Group and Solitary design examples can be seen in Figure 7. *Viburnum lucidum* pyramid plant is an ornamental plant that likes sun and semi-shade and is suitable for pruning. This plant species, which can grow up to 5 meters tall, has green leaves in all seasons.



Figure 8. Zorlu Center Shopping Mall Inner Courtyard Plant Design Example

Different plants were used in the groupings that form the formal designs in the inner courtyard of Zorlu Center Shopping Mall. It can be seen that the plants in Figure 8 were selected from plants that stand out with their color and texture differences, which can be pruned in accordance with the visual design. The *Hakonechloa Macra* plant adds diversity and liveliness to the design with its bright golden yellow color.



Figure 9. Zorlu Center Shopping Mall Inner Courtyard Plant Design Example

Floral designs on the walkways in the inner courtyard accompany walkers along the way. Water pools in the designs contribute to the design within a peaceful garden image. Plants placed in water pools were placed in metal pots. The plants in the soil in metal pots were created using the linear design principle. Figure 9 and Figure 10 provide sample images of the designs that follow the walking path of this courtyard.



Figure 10. Zorlu Center Shopping Mall Inner Courtyard Plant Design Example

The plantings on the balconies overlooking the central courtyard from between the floors are potted. These pots were chosen from plastic material as presented in Figure 11.

The interior design of Zorlu Center is rich in planting. Glass openings were left to allow indoor plants to receive sunlight. The sunlight entering through these glass openings meets the sun needs of the plants. It can be seen that the plants seen in Figure 12 use artificial lighting in addition to daylight. This lighting works automatically at certain times of the day when the daylight effect decreases. Figure 13 shows that artificial lighting changes the design of the leaves by coloring them in shades of pink.



Figure 11. Zorlu Center Flower Pot Sample



Figure 12. Zorlu Center Shopping Mall Inner Courtyard Plant Design Example

5. Results and Recommendations:

A detailed research was conducted on basic design principles, interior floral design elements and factors guiding the design. Additionally, a study was carried out on the interior plant design example of Zorlu Shopping Mall in Istanbul. The planting work, which was carried out by taking into account the basic design principles and interior plant design elements, was designed in harmony with line, color, texture, form, shape and other design elements. It evaluates different examples of planting design in the inner courtyard of Zorlu Center Shopping Mall and the compliance of these designs with design principles.

As an example of the line element of botanical design, the plant *Teucrium fruticans* was used. This plant is

arranged in a line and placed in the sunny areas of the inner courtyard. This plant, which loves sunny places and is green in all seasons, attracts attention with its suitability for interior courtyard design. In addition, the *Hymenocallis littoralis* plant is used in areas of the inner courtyard that need sunlight and adds visual richness to the space with its white flowers.

Agapanthus africanus plant was used as an example of planting designed in accordance with the color element. This plant adapts to the sunny areas of the inner courtyard with its blue and white flowers. Plant selection is important because it provides sufficient sunlight for the inner courtyard, and *Agapanthus africanus* is a successful choice in this regard.

In examples where group design and solitary design are used together, it is seen that plants with different forms,



Figure 13. Zorlu Center Shopping Mall Indoor Artificial Lighting

colors, materials and textures are used together. For example, plants such as *Buxus sempervirens* and dwarf paradise bamboo were used in the group design and created a special appearance within the plant group. In addition, solitary design examples such as the *Viburnum lucidum* pyramid plant add diversity and visual richness to the inner courtyard.

It is seen that the botanical design continues in the interior and sunlight is provided according to the needs of the plants. While plants benefit from daylight thanks to glass openings, artificial lighting comes into play when the effect of daylight decreases. Artificial lighting gives a different atmosphere to the space by changing the leaf designs of the plants.

As a result, the plant design in the interior of Zorlu Center Shopping Mall was planned in accordance with basic design principles. Floral design, together with line, color, texture, form and other design elements, increases the aesthetic value of the interior and enriches the experience of visitors.

In addition to the aesthetic and psychological effects that planting design in the interior brings to the space, it shows the positive changes in the users' experiences. Plants placed correctly indoors revitalize the atmosphere of the place, reduce stress and increase the emotional well-being of the users. Additionally, using plants in harmony with design elements such as color, texture and form increases the visual appeal of the interior.

It has been clearly demonstrated that planting design in the interior increases the aesthetic value of the space and increases the emotional and mental well-being of the users. These findings offer interior designers and landscape architects the opportunity to increase the livability and user experience of interior spaces by making greater use of plant design.

In line with the findings obtained within the scope of this research, it is recommended to use plant elements more widely in interior design. In addition, it is important to configure the plant design in accordance with the characteristics of the space and the needs of the users. The integration of botanical design into the interior plays an important role in creating livable spaces.

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