

## **O 63. THE IMPORTANCE OF OPEN AIR HOMES IN LANDSCAPE ARCHITECTURE**

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**ABSTRACT:** Today's people are becoming increasingly inefficient and unhealthy due to their dense, monotonous, boring life and full of problems in urban areas. For this reason, people need green tissue to relax and relax themselves in their work and living spaces. Therefore, building gardens or open-air homes show its importance for urban life. Open air homes allow people to reach recreation in a short time. The use of the spaces in the buildings while maintaining the functionality of the buildings constitutes the phenomenon of open-air rooms. The aim of this study was to associate; open-air homes; to design open air rooms, to examine sub-places and materials and to be used in open-air rooms with the landscape architecture profession discipline.

*Keywords: Urban landscape, Open air home, Urban life*

### **1. INTRODUCTION**

Today's people are becoming increasingly inefficient and unhealthy due to their dense, uniform and boring lives in urban areas full of problems (Özkan, 2001; Yazici and Gülgün, 2017; Aşur and Alphan, 2017; Aşur, 2019; Akça and Yazici, 2017). Therefore, people need green tissue to relax and relax in their working and living spaces (Durmuş, 2006; Gülgün et al., 2014; Çetin et al., 2018). Building gardens come into play with these aims. Building gardens allow people to reach recreation in a short time. The use of the spaces in the gardens while preserving the functionality of the building constitutes the phenomenon of open- air rooms.

The aim of this study; design of open -air homes examination of sub-spaces and materials were examined. The aim of the study was to establish the relationship between landscape architecture and professional discipline.

#### **1.1. Open-air homes concept**

According to Eckbo, the open -air homes are a space for human life and activities, volume, back space and shelter. The open-air homes are similar to another room in the house, with a garden, bounding walls, cushioned seats and plenty of sunlight (Stewart and Strathern, 2003). Therefore, the reason for the existence of the gardens which we call open-air homes both inside and outside the house is to be a little closer to nature and to live in the comfort of the house in the garden (Stewart and Strathern, 2003).

#### **1.2. Design and application of open air homes**

How many rooms are needed in open air rooms? How much space is needed to walk? the sunshade according to the hours of the space used, the presence of sockets for electronic devices should be known. All possibilities must be considered when constructing the function.

How to use this area when creating an open- air room, the design requirements for the function in this area, how big the open air room should be, how much is needed for shading, watering, sun, lighting and privacy, what kind of a habitat is required or the contrast of which is preferred, which features of the plant, such as fragrant or odorless properties are desired, in short, the space is both aesthetic and practical needs to be considered to meet the needs of the user.

High ceilings, spacious spaces may be more attractive to users. Patio ceilings and gazebos have this opening and also have ceilings to protect the user against adverse weather conditions. As in the interior, some of these spaces may be warm and cozy, while others may be open and spacious.

Corridors are used to connect open air rooms and to establish their relations with each other. In these corridors, corridor elements such as simple roads and step stones are used.

Classical geometry in garden design is traditional and easy to use. Simple geometry forms strong axial lines that focus to water. Specific palettes can be used to integrate the design. Pastel Palette; blue, purple, lavender, soft pink, white Hot Pallet; orange, yellow, red, purple, white Monochromatic; white, red, yellow, purple-blue.

## **2. EXTRA SPACES IN OPEN –AIR HOMES**

The pergolas that adorn the gardens always attract attention and are used for many activities. Intertwined and successive, fragrant jasmine and purple clusters, colorful bougainvillea and honeysuckle plants, such as a kind of second garden pergolas, paths and terraces shade. An example is given in Figure 1.



**Figure 3.** Use of pergola in open-air homes (URL-1)

Showers in open-air rooms are a luxury element for some areas, which is necessary for some areas, allowing a smooth transition to a comfortable evening after day's activities. Outdoor showers help keep homes cleaner; because dirt, sand, grass and other debris are kept outside the indoor shower tubs (Figure 2).



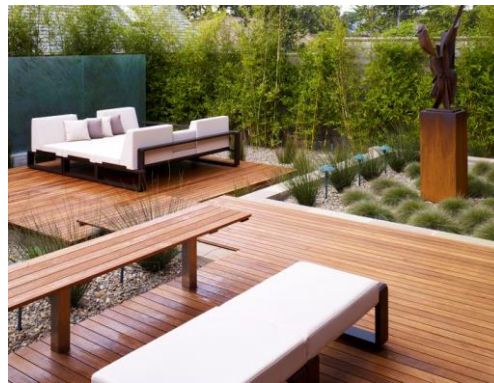
**Figure 2.** Use of bath in open air homes (URL-2)

The barbecue has come a long way since charcoal grills and small barbecues used in postwar patio culture. Outdoor kitchens now have devices and more sophisticated components that incorporate advanced technologies that help create convenience and a potentially luxurious outdoor lifestyle (Figure 3).



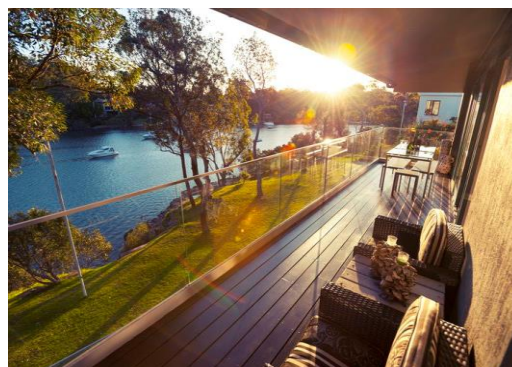
**Figure 3.** Use of kitchen in open-air homes (URL-3; URL-4)

The deck can be connected to a house or be independent of any place. Flooring materials can use softwoods, tropical hardwoods, synthetic trees and pressurized timber. The desired type of deck (such as winding, pool deck, etc.) can then be applied together with the shape, size and layout of the wood (Figure 4).



**Figure 4.** Use of deck in open-air homes (URL-5)

When planning a deck, one of the most important aspects is to place the deck in a location that offers a wonderful view. This creates a great emphasis. There is also a need for glass partitioned railings that do not obstruct visibility when placing a deck too high (Figure 5).



**Figure 5.** Use of landscape in open-air homes (URL-6)

The connection of the deck to the enclosed space must be strong. The hot tub and pool should be easily accessible from the various rooms of the indoor area. When using the deck with the hot pool and bathtubs, the hot tub must be submerged for a tidy look. In addition, the shape of the deck and the steps should be appropriate to the architecture of the indoor space (Figure 6).



**Figure 6.** Use of hot rub in open-air homes (URL-7)

The areas where the deck and patio are used together are small and very handy outdoor spaces for dining and relaxation. In addition, elevated verandas can often be surrounded by plants such as small trees, grapes and shrubs, various plant pots, or vice versa, with decks raised and lowered to verandas. Parquet types made of hard wood such as teak and iroko are as good as decking. They are resistant to most insects and weather conditions and they can remain undamaged for 10 years. When building decks on roofs, it is necessary to use parquet made of such durable trees (Figure 7). A swimming pool becomes a warm and inviting outdoor area with a rich wooden deck frame. Real or artificial rocks used in the area provide the pool area with walls for privacy as well as a rustic, natural look (Figure 8).



**Figure 7.** Use of deck material in open – air homes (URL-8)



**Figure 8.** Use of pool in open- air homes (URL-9)

Use of the deck in the courtyard; the sides are often used as walkways to walk from the front to the backyard, or vice versa. A side garden becomes a destination when wood decking is added. Various plants can be planted for privacy and the area becomes a secluded place to relax, read, eat and sunbathe (Figure 9).



Figure 9. Use of courtyard in open-air homes deck (URL-10)

### 3. USE OF MATERIALS IN OPEN AIR

*Wood* is a renewable building material found almost everywhere. It can be used in different ways, but the cost is high (Figure 10).

**Wood Properties:** Wood is a natural, versatile building material, easy to process; high tensile and compressive strength in fiber direction; moisture-dependent expansion; low weight and thermal conductivity (Hegger et al., 2012).

**Wood Usage Areas:** The directional structure of the wood is also suitable for the carrier system and layers providing thermal insulation. Facade coverings by overlapping panels and washers; used in high quality furniture and handles.

*Natural stone* symbolizes permanence, authority and tradition. Its gross density, strength, surface hardness and thermal conductivity are high.

**Properties of Natural Stones;** Natural, inorganic, layered or homogeneous building material depending on the source; high density, hardness, compressive strength, thermal conductivity and heat storage ability abrasion resistance; To create a special visual effect are the main features of natural stones.





**Figure 10.** Use of materials in open-air homes

Usage Areas of Natural Stones; Due to its compressive strength, it is used in carrier walls. In addition, since the plates have all technical properties, they are used as façade or floor covering on a supporting sub-construction (Url 1; Url7).

*Concrete* is the most common building material to be used today. It is also accepted as an artificial stone due to its robustness. It has no specific shape: It is molded into a mold.

Concrete Characteristics: As a liquid stone, concrete has similar properties to natural stone. Properties can be changed with additives. It loses volume when applied and requires a second carrier system (mold).

Usage of Concrete: Used in pressure loaded shell carrier systems. Pulling forces only steel and so on. materials.

*Mineral Connector Wall Blocks*; Concrete blocks made of calcium silicate bricks and cement are wall blocks with mineral binders. These materials are lightweight because they are hollow; surfaces can be shaped with reliefs (Url 5; Url 10).

Features Of Wall Blocks With Mineral Connectors: It has similar features with natural stone. Gross density and thermal conductivity are lower. It has high dimensional accuracy resulting from small shrinkage in production.

Wall Blocks With Mineral Connectors: It is used to form low-joint, monolithic walls. Due to its low thermal conductivity, it can be applied as a single-walled wall. In addition, it can be used in sheet form as a floor covering.

*Ceramics And Brick*; Today, ceramic materials of different thickness are produced by extrusion presses. The ceramic which is drawn into strips from the mold is cut to different sizes.

Properties of Ceramics and Bricks: It is an inorganic material with high strength, hardness and thermal conductivity. The capillary ratio depends on whether the surface is glazed or unglazed (Url 9; Url 12).

Application Areas of Ceramics and Bricks: Bricks are used in walls based on metric system. Can be used as facade and floor covering.

*Metals*; Metals constitute the largest group of chemical elements. It is divided into heavy and light metals.

Properties of Metals: Dense, bright elastic material with high compressive and tensile strength; high thermal and electrical conductivity; corrosion forming a continuous protective layer (coating) on the surfaces of certain metals; A wide range of cross-section / shape options are available.

Areas of use of Metals: Statically developed metal profiles in carrier systems or as concrete reinforcement; sheet metal plates, especially as exterior cladding; prefabricated products are handrails, door handles, pipes and so on. as used (Url 5; Url8).

*Glass* is a transparent building material. It shows the physical structure of buildings with its transparency. It provides natural light, one of the basic human needs.

Glass Properties: Unshaped and transparent material with high density, tensile strength and hardness; The bearing capacity proportional to the surface stresses has moderate heat conductivity which can be reduced by the coatings applied to the surface.

Application areas: It is used in transparent facades and windows. In addition to a wide variety of surface coatings that can be used to reduce light transmission, a reflective layer can be applied to the glass to receive light from only one surface.

*Plastic*; Low thermal conductivity and gross density, usually translucent, compact, organic material; It is a component that can be used in all kinds of production with high elasticity, tensile strength and thermal expansion capability (Url, 5; Url 9)

Properties of Plastics: Compact, organic material with low thermal conductivity and gross density, usually translucent; It is a component that can be used in all kinds of production with high elasticity, tensile strength and thermal expansion capability.

Applications of plastics: It is a widely used material ranging from high-strength, fibrous composite sections to interior coatings, facade panels, functional products such as paint and glue.

*Textiles and Membranes*: The Latin word 'textile' means woven or knitted and is the general name for all types of woven material.

Properties of Textiles and Membranes: Soft materials with low thermal conductivity. If two-dimensional felt layer is added in its structure, it is three-dimensional. Waterproofing by coating.

Usage of Textiles and Membranes: It can be used as a cover resistant to external weather conditions by stretching. It is also used as flooring and wall covering, movable partition, upholstery fabric and acoustic insulation material (Url 2; Url4)

#### **4. ROOMS OPEN AIR ROOMS AND LANDSCAPE ARCHITECTURE**

Landscape Architecture examines the concepts of nature, planning and design in a systematic structure; It is a professional discipline that combines art, science, engineering and technology, and makes use of the natural and cultural resources in the right way for the usage decisions of the area, planning ecology-economic-functional and thus sustainable, and dealing with the management and field design (Atıl et al., 2005).

The Role of Landscape Architects In designs of Open-Air homes ; open-air rooms are the integration of residential spaces into gardens with building materials of design green scale. These open spaces are created in accordance with the design principles. Open air chambers created in line with these principles are directly related to the discipline of landscape architecture.

Landscape architects; By combining the concepts of space usage, functionality, green texture and aesthetic concern, landscape architects create open-air rooms. design, planning, repair, management, and protection of existing or open air rooms. The technical education and environmental awareness of a landscape architect is of great importance during these studies. However, there are problems in reaching the targets and criteria to be achieved due to the fact that the interdisciplinary boundaries are not completely drawn and the sharing of authority among the professional groups cannot be made fully.

#### **5. CONCLUSIONS AND RECOMMENDATIONS**

Open-air rooms, which have been used more frequently after World War II, have become more modern and functional and can be more aesthetic and functional than other areas. In addition, a remote room can be an attractive place to visit. Nowadays, the best way to get away from the dense urbanization and its stressful environment is open air rooms. This study emphasizes the importance of open air rooms in landscape architecture. In future studies, design of open air rooms with global warming can be discussed.

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