PEYZAJ MİMARLIĞINDA SÜRDÜRÜLEBİLİRLIK VE BİYOFİLİK TASARIM KAVRAMI

Öz


Anahtar kelimeler: Biyofilika, Biyofilik Tasarım, Sürdürülebilirlik, Peyzaj Mimarlığı
CONCEPT OF SUSTAINABILITY AND BIOPHILIC DESIGN IN LANDSCAPE ARCHITECTURE

Abstract

Biophilia is a concept that reveals that people are instinctively connected to all other living systems. Biophilic design relies on the concept of biophilia with sustainability, and it carries the environment, architecture and urban design. At the forefront of urban design quality criteria is "sustainability". Sustainability in landscape architecture is diverse, ranging from land use decisions at the urban and regional scale to the production of the right solutions for people's physical, psychological and social comforts in landscape design. The landscape architecture discipline can be achieved for human beings only when they integrate nature and natural processes into their design work, with the goal of sustainable and sustainable development, which is possible with the biophilic design approach. In this study, concepts of sustainability with biophilic design are examined from today's concepts, and relations with landscape architecture are revealed.

Keywords: Biophilia, Biophilic Design, Sustainability, Landscape Architecture

INTRODUCTION

As a result of technological developments, environmental pollution has increased and problems such as exhaustion of raw material resources have emerged. Sources have been used spontaneously, never to be consumed, nature has not renewed itself as a result of these repressions despite the self-renewal feature. Lack of resources from the square was obtained from other areas where this problem was not experienced first and tried to be solved, but in other areas, the same problems emerged and the problem became global.

The ecopsychologist Theodore Roszak (1992) claims that people have become alienated from the natural environment. Contemporary discourses of sustainable development is plagued by the modernistic assumptions of rationality and the separation of people from the biophysical environment (Merchant, 1980; Macnaughten and Urry, 1998; Banerjee, 2003). But sustainability can reunite people again with the natural environment.

Sustainability can be defined as ensuring the continuity of productivity for many years under optimal conditions. The concept is firstly used in conjunction with the concept of development to introduce a general framework of what should be in our lives and what needs to be sustained. However, for the sustainability of the whole, the framework and the scale of the concept have been reduced in view of the fact that constituent items must also be sustainable. By ensuring the sustainability of the cities, it will not only solve the living environmental problems but also increase the quality of living of the present population and create livable spaces where the future generations can easily live their lives (Atıl et al., 2005).

Taking correct domain usage decisions especially in landscaping and ecological planning; the profession of the landscape architecture has to say is an important and functional need for the creation of sustainable cities. According to McHarg (1968), sustainable development, landscape architecture and planning disciplines can reach sustainable development goals for
human beings only when they integrate nature and natural processes into planning and design work. However, McHarg (1969) stated that the results of studies involving nature and natural processes will emerge over time, considering the dynamic process of nature. It should not be forgotten that especially in cities, this process can be slowed down by the fact that the existence of natural areas is low. In this context, the concept of nature, design and sustainability is becoming increasingly important in rare areas that have not lost their natural characteristics in urban areas (Memlük and Başal, 2011).

**CONCEPT OF SUSTAINABILITY**

Concept of sustainability is defined as "the principle of meeting today's needs without sacrificing the right and the ability of future generations to meet their own needs" (WCED, 1987). Sustainability can be described as "meeting current needs without harming future generations' ability to meet their needs" (McDonough, 1992). On the other hand, sustainability in the context of development can also be explained as ensuring quality of life by taking into account biospheric transport capacity, ecosystem and resources (Smith, 2000). According to another definition of sustainability, not every generation will spend their main capital in their own hands, but rather with the profit that the previous generation inherited from the inheritance. According to another definition, sustainability provides all the quality of life and makes access to natural resources permanent (Ruano, 2000).

Sustainability of cities can be defined as the sustainability of societies. Human societies are influenced individually by the places they live in and they also influence the places which they live in. Ensuring the sustainability of cities is ensuring the livability and continuity of the living standards of those living in cities and those living in the future. Sustainable urban development should be considered in parallel with sustainable social development.

Geenhuisen and Nijkamp (1994) approach of sustainable cities; "Cities where socio-economic interests are harmonized with environmental and energy concerns to ensure change in continuity". With an ecological approach, cities are living creatures living in a certain area and interacting with each other, and cultural ecosystems formed by their inanimate environment. For this reason, cities should be in harmony with other ecosystems such as lakes, coastal and forest ecosystems in their environment and should not harm them at least. The concept of sustainability obligates the natural and cultural environment to be given the necessary artifacts.

Shmelev and Shmeleva (2009) define the sustainable city as "a holistic system in which the social, economic, environmental and institutional aspects of development are harmoniously integrated". Hiremath et al. (2013) defined urban sustainability as "the development of urban spaces and the provision of equilibrium between equality and protection of the environment". The concept of sustainability is not only related to environmental protection but also has economic and social aspects and sustainability has a dynamic, balanced and adaptable structure (Arslan, 2014).

Sustainability for designers can be described as raising the quality of life of communities without exceeding the carrying capacities of global ecosystems, either at the urban or architectural level (Oktyay, 2001). Landscape Architecture is a systematic study of the concepts of nature, planning and design; an occupational discipline dealing with planning, management and space design of ecological-economic-functional, and therefore sustainable, by evaluating natural
and cultural resources in the correct way, by bringing together art, science, engineering and technology. When we look at this framework from the perspective of sustainable cities inevitability, the analysis and management of environmental protection, ecosystem and resources, the planning of rural and urban spaces, the coordination of environmental impact assessment studies; It seems that landscape architects are all involved in planning and designing recreational areas, cultural areas, urban open spaces, pedestrian zones, highways, industrial and agricultural areas (Atıl et al., 2005). Biophilic architecture, which combines the concepts of nature and people, is a concept that landscape architecture discipline should focus on and it has also been tried to be associated with sustainability by being defined within the context of the study.

**BIOPHILIA AND BIOPHILIC ARCHITECTURE**

“Destructiveness is not parallel to, but the alternative to, biophilia. Love of life or love of the dead is the fundamental alternative that confronts every human being. Necrophilia grows as the development of biophilia is stunted” (Fromm, 1973).

The Biophilia Hypothesis, which claims that humans possess a biologically based attraction to certain aspects of the natural environment and that their well-being depends, to a great extent, on the relationships with the surrounding natural world (Wilson, 1978; Wilson, 1984; Kellert, 1997; Kellert, 2002; Kellert, 2008; Ulrich, 1993). This term was first used by Erich Fromm and used the opposite of necrophilia; As being attracted by things that are vital. Fromm (1973) proposed the possibility that the deep affiliations humans have with nature are rooted in our biology. Unlike phobias, which are the aversions and fears that people have of things in the natural world, philias are the attractions and positive feelings that people have towards certain habitats, activities, and objects in their natural surroundings (Jones, 2013).

Secondly, Edward Wilson defined Biophilia and associated it with "the consciousness of human existence to pursue its life and to establish vital links."

In summary; Biophilia, which means to love life and living things in the the word, reflects the combination of the "bio" of the "philia", which reflects the positive feelings that people feel toward their living spaces in their natural environment, as opposed to "fears". This hypothesis also explains why people are feeding pets, planting plants, visiting zoo gardens, pleasing with greenery and natural life, and sometimes endangering their lives to save a living in danger.

The love of natural life comes from within and keeps the person alive. In this context, every movement that is directed by the concern of continuing life and progeny is a result of biophilia. The biophilia hypothesis has also been used to support and explain evolutionary psychology. Today, despite the fact that human beings are disconnected from nature, in an effort to maintain this relationship and to establish vital connections under the subconscious, antagonism emerges in different forms of daily life.

The fact that urban people symbolize nature symbolically represents the spatial positioning of plants and animals is in fact the result of this instinctual connection. These symbolic objects actually play an important role in meeting the human need for biophilia (Olgun and Demet Yücel, 2012; Těšitel et al., 2001). Biophilia settlements, centering on the conservation of all natural life forms in relation to nature and living areas and enabling them to experience the indispensability of balancing with the cooperative learning process, can be used as a tool for sustainable urban development (Olgun and Demet Yücel, 2012). Urban design and planning that emulates and learns from natural lifestyles and systems, processes this knowledge on the basis
of forms of urban buildings and urban structures. We can define the Biophilic Design as one of the examples of deep philosophy that carries alternative qualities apart from the formal formations which are mostly limited by the superficiality of this information.

Biophilic design is the architectural concept of biophilia. Researches have put in place that people work more efficiently in structures intertwined with nature, that they learn better and learn more easily. Similar findings have shown that schools, hospitals and especially offices have begun to embrace the principles of biophilic design.

The documentary entitled "Biophilic Design: Architecture of Life" by design experts Bill Finnegan and Stephen Kellert revealed that buildings and living spaces with biophilic design bring people closer to nature. The basic elements of biophilia design include natural ventilation, natural lighting, forms that resemble natural processes or products, and natural landscapes. In this way, people can be made to feel themselves in the natural environment.

Biophilic cities are residential areas that grow together with green by protecting the biodiversity of their natural areas. The typological structure of climate, topography and other local special qualities has a special connection with the flora and fauna found there. Biophilic cities offer opportunities for a slow movement that allows exploration, in contrast to the rapid availability of vehicle traffic. Bicycle paths increase hiking trails with green areas. Biophilic cities provide enhanced sensory contact with natural forms and materials, visual and ocular experience. It also offers an important educational opportunity for the protection of nature. Not only the prospect of nature is expected to be a living environment that supports the sense of volunteerism in the restoration. The biophilic cities are based on a social and physical understanding that brings together parks, natural history museums, visits to wildlife centers, direct integration into life, and natural areas as a neighboring area beyond daily visits. Biophilic cities undertake action to limit the effects of resource use on nature and biodiversity beyond their own urban borders (Biyofilik Cities, 2011; Olgun and Demet Yücel, 2012).

RESULTS AND DISCUSSION

Landscape architects should also adopt the philosophy of lifelong learning in their own field and fulfill the necessity to translate what they have learned into concrete perspectives and concrete approaches in order to prevent the development of technology and a world understanding that keeps pace with it. The designer must always act as a unifying agent, a compromise platform for different environments, and take leadership in building this sustainable society structure with this consciousness. It must be perceived that the landscape and the landscape architect, who can take place among today's consumption objects without fully perceiving the concept of sustainability, assume a conscious and informative role in this environment.

It is necessary to know where the terms and quests used in the definition of sustainability overlap with the truth of sustainability. It is important for landscape architects to decide what criteria of "biophilia" can be included in the scope of sustainability in terms of criteria. The sustainability criteria set in the study and biophilic design criteria have been defined and associated, thus aiming to shed light on landscape architects.
REFERENCES


