



## Chapter 4

# The Participation of Biophilic Design in the Design of the Post–Pandemic Living Space

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### ABSTRACT

*During the COVID-19 process, nature has been a place of escape regarding socialization and well-being. The aim of biophilic design, which supports physical and mental health in a fair and accessible way, is to evaluate the interaction with a healthy environment and to develop design proposals in this context. As a method, post-pandemic requirements, behaviors, and spatial scales are examined through a model in terms of biophilic design, and suggestions are made for the new normal by researching biophilic elements. The biophilic design provides the potential to use nature, daylight, air, and vitality as design elements to improve the quality of spaces and support the experiences of societies. Apart from including green spaces and ecosystems in the design, biophilic design can enrich the multisensory and multidimensional experiences both individually and socially by enabling users to participate in this experience. While this approach supports sound, healthy, and safe living spaces, it will also provide for cities to be sustainable and resilient.*

### INTRODUCTION

As an area that is defined by its own criteria in the literature, environmental health undergoes a constant evolution due to the changes in lifestyle (Harrison & Coussens, 2007). The National Environmental Health Association (NEHA), which aims to develop a specialization in this area with an objective to

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provide a healthy environment for everyone, has determined various dimensions of the environmental health discipline. The areas that need to be managed and enhanced in relation to the human factor can be summarized as controlling the subjects that threaten health, developing and implementing guidebook policies, providing health interaction and education materials, developing suggestions for land use, and making research on the relationship between health and environment. With the COVID-19 process, environment design has been an area that needs emergent policies in this context. Having emerged firstly in China and caused loss of lives on a serious scale by spreading globally with an immense fastness, lockdowns and quarantines were implemented in many countries to take COVID-19 under control (Signorellet et al., 2020; Gondauri et al., 2020). Data on how the virus quickly spreads through the air, things, and viral exchange are closed and crowded spaces have turned constructed environment into a threat (Amerio et al., 2020; Dietz et al., 2020). Upon determining that the disease spreads fast in closed and crowded spaces, social distance and isolation concepts have been part of our lives. Social relationships, nutrition, and physical activity habits have changed during this period; social isolation and stress have had negative effects on mental health (Settersten et al., 2020; Ellis et al., 2020). Preservation of health, which is the foundation of life quality, has become the primary criterion, and raising one's immunity has gained importance during this period. Research conducted in this period shows that physical activity and particularly in environments that have this opportunity strengthen immunity (Mattioli et al., 2020; Sallis, 2020). The existence of green spaces and their quantity and quality has gained importance in the post-pandemic period in terms of the support for mental health, physical activity, and socializing in the open air. Although the existence of green spaces and their accessibility in terms of both transportation, and quantity and opportunities have gained importance in relation to the lockdowns and quarantines that took place during the pandemic, this importance will not diminish after the pandemic (Ahmadpoor & Shahab, 2021).

The fact that nature has become an escape route for relaxing, breathing, socializing, and feeling psychologically good during the COVID-19 process has caused people to return to nature. At this point, biophilic design, which uses nature as a design element and a tool, serves as a guide for the constructed environments that are healthy and support life quality during the COVID-19 process. Direction from the urban to the rural has begun after the isolation in the cities and summer housings have been transformed into permanent accommodation. Distant education and distant working practices have a big role in this development. Thus, dwelling in the village houses, farmhouses, and farm life has increased and the expansion of life in summer houses has become a ground for the unification of nature and the human. Since not everybody has access to such a life, the aim has been to bring nature to living spaces as biophilic design is a prominent design method for practices in this frame.

In this context, the aim is to analyze the interaction between healthy environments in the post-pandemic lifestyles and biophilic design that supports physical and mental health in a fair and accessible way; and develop design proposals accordingly. The method is to analyze the need of green spaces, which have a more vital role in the post-pandemic period, in terms of the patterns that make up the components of the nature-individual-health perspective proposed by Browning et al, (2014) and Ryan et al., (2014); associate biophilic elements with different spatial scales, and generates suggestions for the "new normal". Biophilic design is a definitive tool for green spaces that support physical and mental health which is qualified and accessible for everyone.

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