



Analyzing Design Principles of Biophilic Neighborhoods

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Abstract

In current century, cities face rapidly evolving challenges, including climate change, resource shortages, population growth and urbanization, and financial pressures. Biophilic urbanism is an emerging design principle capable of considering the multidimensional and interdependent complexities of urban systems and infrastructure, which through the use of natural design features, can meet society's inherent need for contact with nature, and assist efforts to respond to these growing challenges. The purpose of this research is assessment Biophilic criteria in Iran metropolitan. In this research has been mentioned five criteria and 15 patterns. The quantitative and qualitative methods has been used. Data collection methods are observation and questionnaire. Also, has been used AHP method in order to comparison between criteria and patterns. Findings show the most important criteria is biodiversity in order to achieving Biophilic neighborhood. Other principles are bio mimicry, prospect, and the sense of playfulness, enigmatic.

Keywords: Sustainability; Biophilic Design; Biophilic Neighborhood; Biophilic Criteria.

1. Introduction

There are some urban problems in current century such as in creasing population, increasing demand for energy consumption, air pollution and etc. due to these problems, it is necessary that are some factors to support the clean, sustainable and renewable energy [1]. Within this complex and multidisciplinary problem context, sustainable movement and other proposed approach such as new urbanism, green city, walk-able city, healthy city, efforts are required to find rapid and transformational solutions [2, 3]. The literature on neighborhood planning movement are namely garden city, neighborhood unite, modernism, neo traditional planning and eco-urbanism [4].

At first, Ebenezer Howard is widely known as person who started the new way utopian thinking. His utopia is garden city [5]. In continue, Clarence Perry, offered the neighborhood unite as instrument for addressing social problems such as alienation, youth delinquency through enhancing the physical design of community [6-8]. At finally, the end of 20 century, has been a global diffusion of initiatives that attempt to integrate sustainability principles in to neighborhood development.

In 1970, sustainable development is proposed by Brantland commission. Sustainable urbanism are urban design with nature and creating better communities. Sustainable urbanism , on the other hand , is more focused on designing on communities that are walk able and transit- served so that people with prefer to meet their daily need to foot .

One of the sustainable urbanism is green urbanism. Propose of green and sustainable urbanism are urban design with nature and creating better communities. In current years, in order to achieving sustainable development is Biophilic architecture and design. Biophilic approach believed that human need daily contact with nature to be productive and healthy, that contact with nature informs human evolved as part of winder nature [9, 10]. Biophilia thesis or Biophilic

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