

Develop a Conceptual Model of the Principles and Criteria of Green Architecture based on the Evolution of Environmental Thinking

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Abstract

The State of the world at the beginning of the 21st century warns unsustainable development. Architects, as designers of artificial environments, have a social responsibility in presenting designs with the least negative impact on the environment. Throughout history, terms such as green, ecological, sustainable, and environmental architecture have been used to answer the most important problem of the time, while carrying ambiguous concepts burden. Therefore, the purpose of this study was to analyze the architecture based on the evolution of environmental thinking and to present a conceptual model of green architecture principles and criteria. The used method according to the purpose was applied research method and the study method was descriptive-analytical research. The collection of information was the study of written sources and their content analysis. Since green is an abstract concept, it requires an understanding of the terms sustainability, ecology, and performance. Criteria for measuring and evaluating green architecture were inferred according to the evolution of architecture over the past decades and the green architecture principles and criteria were presented in the form of a conceptual model. The results showed that green architecture is mature in the evolution of architecture and consists of performance, ecological, and sustainability criteria. During its evolutionary stages, architecture has tried to integrate the principles and criteria derived from ancient ideas, such as indigenous, tropical, ecological architecture to modern architectural concepts such as functionalist, spatial, and sustainable architecture, and by shaping green architecture, it has created a link between traditional and modern thinking with the minimal ecological footprint.

Keywords: Principles of Green Architecture, Environmental Thinking, Evolution, Green Architecture