

Principles of Green Architecture Suitable for Application in Yemen

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Abstract:

Green Architecture (GA) began to appear -as an expression - in the seventies of the last century. Recently, Arab world begun to interest in GA. GA evaluation systems have emerged as a basic requirement to determine the quality of these buildings and their commitment to the principles of green architecture. Although there are many GA evaluation systems in many countries, Yemen delayed in applying the principles of GA, and its buildings moved away from applying the internationally recognized GA principles (GAP), although some of these principles appeared throughout history in Yemeni traditional architecture.

Applying the principles of GA always faces different circumstances that may affect it positively or negatively, and they differ from one society to another. Traditional Yemeni architecture has been characterized by many features, environmental aspects and many architectural treatments that meet the goals and principles of GA, but the applicability of all the principles in Yemeni architecture has not been tested. Thus, this paper seeks answer a central question that asks about the applicability of GAP in Yemen. The research aims to find an answer to the central question by examining the applicability of GAP in the Yemeni built environment. A questionnaire is conducted for architects and specialists in Yemeni Architecture to examine the applicability of GAP in Yemen in light of its circumstances. The study ends with results of the questionnaire, analysis and discussion of the applicability of green architecture principles in Yemen and the degree of their importance in terms of application. The research concluded that there is a set of principles that are applicable in Yemen which are: Respect for site; Adapting with climate; Energy efficiency; Material and resource efficiency; Water efficiency; and Indoor environment quality, with a set other GAP that specialists demonstrate that they are not applicable in Yemen. The study also recommend to apply the approved GAP in Yemen in relevant contexts.

Keywords:

Green architecture, The Yemeni urban reality, Yemen.