

دراسة مقارنة بين معايير الـ (LEED) و مبادئ الاستدامة في العمارة الإسلامية A Comparative Study of LEED Standards and Principles of Sustainability in Islamic Architecture

أ.م.د/ وليد محمد الغمري بركات

أستاذ مساعد بقسم الزخرفة كلية الفنون التطبيقية - جامعة حلوان

م.د/ نسرين يوسف ابو مسلم

مدرس بقسم الزخرفة كلية الفنون التطبيقية - جامعة حلوان

م/ بسنت عبد الباري مهدي عمارة

مصمم حر - قسم الزخرفة كلية الفنون التطبيقية - جامعة حلوان

Abstract:

In modern Egypt, before the end of the twentieth century, many modern concepts of design and architectural formations emerged, such as environmental design and sustainability. Interestingly, by studying these concepts, we find that they are not modern, but are terms that were associated with the West in its formulation, but it was a concept inherent in architecture since ancient times.

For example, sustainable architecture is concerned with the support and compatibility of the built environment, the natural environment and the creation of healthy human settlements that preserve human dignity, preserve cultural heritage and distribute wealth in a fair manner, ensuring that successive generations meet their needs.

All of which are functional concepts found fully in Islamic architecture. They have maintained the ecological, social, economic and cultural balance, which was the closest to the concept of sustainability, both realistic and logical.

Since the issues of environment and urbanization are the main engine of this modern thought, has emerged over the past several attempts to codify and framing this thought, in the form of evidence and standards, which is trying to deal with the search for discovery and rooting.

As the research aims to consolidate the concept of sustainability in Islamic architecture, LEED standards have been tested with the concepts and methods of "Islamic architecture".

to determine the compatibility between them and the extent to which Islamic architecture covers the principles of sustainability in its contemporary concept.

It has been proven that Islamic architecture has effectively addressed sustainability issues, covering most of its aspects.

LEED standards have applied a number of requirements to achieve the concept of sustainability. On the other hand, Islamic architecture has taken these standards in different ways and forms, including:

- LEED has been interested in increasing the green areas and providing shade to reduce the heat of the sun. These standards have been applied efficiently in Islamic construction using gardens, as well as various shading methods such as domes, sheds and planted ceilings, as well as daylight control in innovative ways.

- Water use efficiency, which aims to regulate the use of water through several methods. It is clear that these goals achieved in Islamic urbanization by many means.

- Resources and materials, which aims to extend the life of existing buildings and conservation of natural resources, and reduce the use of raw materials. This criterion has been achieved in Islamic architecture by encouraging the use of local materials.

- The quality of the internal atmosphere and aims to provide additional external ventilation to improve the quality of air inside, and has been observed in this standard some treatments for openings as well as the use of stoves, mummies, patio and so on.