



Interconnection spaces, a solution to architectural sustainability

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Abstract

Research Problem: Sustainable communication among the three elements of man, nature, and architecture is an issue that most architects and researchers have sought to realize since the emergence of environmental and cultural problems created by modern architecture. What is considered in this paper is the ability to communicate correctly and efficiently between these three elements using the creation of interconnection spaces. By connecting and detaching, mentally and objectively, the interconnection leads to the proper connection of the body components with the design context. This element helps to unify the texture while helping to understand each space separately, by defining the hierarchy. Forming this relationship properly and appropriately can help sustain architectural work. This feature in interconnection doubles the importance of considering it in designing.

Research Question: How much can Interconnection spaces contribute to achieving sustainable architecture? Which design solutions can lead to sustainable architecture?

Research Method: the method used in this paper is a descriptive-analytical way. Therefore, indicators of sustainable architecture and interconnection space are introduced to investigate the impact of interconnection spaces on the realization of sustainable architecture. In the present study, by identifying multi-dimensional features of interconnections and adapting them to sustainable architectural indicators, the effective communication of these two concepts has been discussed. Since Mosques are one of the prominent uses of Islamic monuments in Iranian architecture, which has always been regarded as the core of Islamic cities because of their sustainable connection to the context, in this study, the mosque is examined as an example of interconnecting spaces that has led to its comprehensive connection with the context. Hence spaces such as 'Jolokhan', porch (Eyvan), Hashti, Revagh, and yard which create the connection and detachment of the mosque with its context are introduced exactly and in a period can be a pattern for Iranian architecture.

The Most Important Results and Conclusion: Interconnection can play a role in all scales of design, from the micro to the macro, from structure to architecture, from voluminous concepts to details and decorations. Since one of the pillars of sustainability is the proper connection to the field - from various cultural, social, environmental, economic - aspects, with the correct design and proper alignment of the interconnections, this connection can be properly formed and ultimately have a lasting effect. To summarize the proposed contents, solutions have been provided that generally refer to the characteristic of the interconnection wall or the creation of interconnection space which can be defined and experienced, including the attention to open and semi-open spaces to communicate flexibility of design and to reach a wider range of audiences, employing past successful patterns in space design, using technological or local methods for wall design, considering the maximum use of spaces and avoiding energy wastage for proper communication between design components and context through the creation of interconnection space. These solutions can be implemented in different designs and different forms and at different scales by

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comparing the design of sustainable mosques and the aforementioned solutions, we can say that due to the different aspects of sustainability in providing these solutions, considering them in the design process, sustainable architecture goals in other uses can be achieved to a great extent.

Keywords: interconnection space, integration, sustainable architecture, context, hierarchy

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