

Modernize the Courtyard House

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Abstract

It is acknowledged that the courtyard house is one of the most important types of vernacular housing in the world, especially in the Arab countries. However, the use of courtyard house has not excluded on the vernacular architecture in the twentieth century, modern architects in their latest work tried to rediscover this type again. This paper discusses this rediscovering, and clarifies different ways of adapting vernacular concepts of courtyard houses to produce a modern one. Modernists combined the historical authenticity of this type with the requirements of modern life as well as with the modern methods of design and construction. Three famous ways of modernizing the courtyard house are clarified in this paper, in order to discover influences of vernacular concepts on the modern movement as well as tools of developing this type in the modern architecture. The paper concludes that the courtyard house as a type has passed several stages of modernization: simulation, integration, and transformation. In all these stages, the ability of the courtyard house to keep up with the times and achieve a remarkable success in modern architecture is observed. Therefore, it is possible to modernize the courtyard house in line with keeping qualities found in the vernacular architecture.

Keywords:

Courtyard house; Housing design; Modern architecture; Vernacular housing

Introduction

It is important to study the courtyard house as a type, and display its applicability in the contemporary and modern architecture. A successful architecture from our point of view is the one that considers the past and tries to develop it's suitability to the modern age. Architecture that ignores centuries of human interaction with the environment will not survive for a long time. Many studies introduce vernacular concepts as a solution for contemporary problems. On one hand, the social benefits of the courtyard

house characterized by the proximity of people from each other and at the same time maintaining the privacy of individuals and groups. On the other hand, there is a great deal of studies about the environmental benefits of using the courtyard in housing environment; the reason behind is the great assistance for thermal control and exploitation of natural lighting. This type also achieves high density, which reduces the consumption of land and building materials and helps to reduce the cost of operating the houses.

Rediscovering

The architects of modernism already proved this ability in many projects of housing in the second half of the last century. Vernacular courtyard houses inspired the architects of Europe at that time to experience a dens and low-rise building type³. Modernists attempts to discover such new housing types as a try to find solutions to social and environmental problems created by modernity. The search for these desired solutions greatly influenced by the type of the courtyard house that was prevalent in the vernacular Arab regions. These experiences could encourage examining the use of the courtyard house after that in many projects in Europe seeking for sustainable housing environment.

Simulation

The term 'simulation' refers to the vernacular courtyard house, which is the procedure of designing similar houses with slight changes. Modernizing the design is limited to using simple modern tools: regular shape, and modern construction methods. However, the concepts of designing the house itself are not improved. The courtyard is still the central element of the house that is used for circulation between interior spaces as well as its use as a center of family's activities. The kitchen and the bath are separated from other rooms by the court.

Integration

The term 'integration' means the process of mixing

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the vernacular concepts with the modern concepts of designing the house and its context. In this case, many modern concepts are adapted in designing the house, such as separating functions by rooms, using interior corridors to decrease the role of the courtyard as a circulation element. Other modern concepts of articulating housing can be found such as horizontal or vertical rows.

Transformation

The term Transformation is used here to describe a wider transition of the courtyard house that exceeds simulation and integration. It is the convert of the courtyard house to an urban type of settlement⁷. To innovate a new experience of modern housing that meets modern needs. In this way the courtyard house is transferred into a dwelling that belongs to a wider context. Thus, the courtyards become shared spaces. However, courtyards still have the ability to preserve their environmental and social characteristics. Besides, courtyards become a part that has stronger relations with the whole settlement, which encourages cooperation between different families.

Conclusion

The preview of the previous case studies has revealed that the traditional courtyard house was modernized with the respect for its authentic roots. This modernization has passed three main stages. These stages which ranged from simple and direct simulation of the courtyard house, to the fusion of Western concepts with the traditional concepts, reaching to devising new ways of dealing with the inner courtyard. This modernization sustains the idea that courtyard house has the great potential and flexibility to deal with different demands of the modern age of architecture. Functional wise, there are

three main uses of the courtyard that can be differed according to the need.

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