

## **Mashrabiya in Islamic architecture between idea authenticity and applying novelty**

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### **Research Summary:**

Mashrabiya had formed one of the most important elements of architecture specially civil architecture in Islamic heritage. As it is known as a successful architectural solution for climate nature because the shape of its configuration allows it to control sun rays and air currents and forming interior comfortable environment and also providing privacy specially in housing architecture. So Mashrabiya comes in our Islamic heritage with consistency with climate, privacy and culture considerations for the occupants of the interior environment additionally with Aesthetic considerations represented from its infinite design characterized with the elasticity of its formations. The Egyptian carpenter was one of the most handicrafts men who represented Mashrabiya arts with different designs and forms and he excelled at perfection at this kind of art and he represented it to the whole world in the form of beautiful wooden interfaces. Many International architects paid attention to this important architectural element and started taking inspiration from this concept to represent modern solutions for many architectural interface for public and private buildings and they turned this wooden local heritage element to elastic system for natural light responding to high technology and representing Contemporary aesthetic solutions taking its origins from Islamic heritage in consistency with modernization and Contemporary Technology.

**Key words :** Mashrabiya traditional - Aesthetic values - Functional values - passage of light - air flow - air circulation - humidity of the air – privacy - contemporary interpretation.

### **problem of the study:**

How did the functional and aesthetic values of traditional Mashrabiya affect contemporary architectural thought ?

### **Objectives of the study:**

To focus on some modern formulations of the traditional Mashrabiya concept and its analysis to determine the extent to which the various values provided by the traditional Mashrabiya have been successfully achieved

### **Conclusions:**

- 1- Traditional Mashrabiya provided effective solutions to the physical, psychological and spiritual needs of vacuum users in Islamic architecture.
- 2- The gradient shadow created by the circular form of traditional mashrabiya limits the large contrast between light and shadow in the space unlike other means of shading even the square sector mechanical system , which does not break the light on it's surface specially with the large sectors for it , causes a great contrast between the areas of light and shadow inside the building happened , Which some architects tried to overcome by working successive layers to

break the direct light and ensure its spread within the place without disturbing the direct radiation and to adjust the contrast between light and shadow.

3- The traditional Mashrabiya ensures good flow of air movement and speed it, thus improving the interior vacuum thermally, and ensures the internal air humidity due to the nature of porous wood, while modern alternative materials do not provide this thermal advantage because of the lack of absorption and evaporation properties of their surfaces.

4- Contemporary applications of the Mashrabiya concept have succeeded in achieving at least one function of Mashrabiya, namely controlling the amount of light entering the vacuum and adjusting the comfortable lighting levels.

5- if the use of Western thought of the modern forms of Mashrabiya consists with the components of the natural environment in the West, it seems strange to the natural environment and culture of the Arab region, and also a threat to the identity of the Islamic architecture even who see the architecture in some Arab regions as if they are in front of a Western city, There are not clear features of Arab architecture.

### **Recommendations:**

1- It is good that science and evolution do not stop at a certain age or a particular tool, and that man always develops the ideas and methods that help him to perform a better life. Therefore, it is necessary to emphasize the use of the advantages and means of high technology but design visions and materials suitable for human culture and the climatic conditions of the Arab region.

2- To improve the features of weather resistant wood to withstand the climatic conditions of the Arab region to take full advantage of the features of natural wood, which was a major reason for the success of Mashrabiya as a distinct environmental element.

3- - Maximizing the use of Mashrabiya as an important environmental and heritage component in the consolidation of contemporary Arab architecture.

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