

## **The role of the natural environment in shaping patterns of Turkish architecture in the eastern Muslim world**

### **Abstract**

This paper dealt with the effects of the natural environment in the various patterns of Turkish architecture, which concentrated on

The climatic circumstances and the valid building materials which provided by nature in the construction of buildings adapting it to the climatic circumstances. For example, the environment had provided a natural building material (mud) in Iraq and Iran, which has had a great impact in the construction of the majority of their buildings and its decorative elements.

In the same time, the natural environment provided in the Levant and Anatolia, the stone material which were used for the construction and decoration. Also the timber were from the materials which provided by nature in some territories under states of Turkey and he exploited brilliantly in Turkestan and the Levant, Anatolia. The remains buildings prove that the Turkish architecture was very clever in the selection process of the valid materials and adopting it with climatic circumstances constructing different types of ceilings from the provided materials by the nature, using the bricks to build the double domes in Iran, Iraq, and Anatolia.

The outer surface of these double domes has taken several forms, including stalactites and conical, while used the wooden gable roofs, because the wood were available in the Levant and in Anatolia as well. Due to the weather was mild in the summer and rainy in winter the architecture used the domes and the vaults as ceilings.

Also we find different sizes of courtyards in the regions of the states which ruled by Turkey. For example, the courtyards in the hot provinces the used a large

courtyards, but it has dwindled in size in cold provinces or disappeared completely. The Turkish architecture was very experience in the construction of domes with pavilion that come out lanterns to provide amount of lighting and ventilation. The Turkish architecture had created facades that contain several rows of openings to provide the maximum amount of lighting.

The paper will define the tries of the Turkish architecture to protect his interior spaces in the houses and palaces from the cold weather in these areas, by designing the heaters or fireplaces, and adding the gutters on the roofs to disposal of rainwater in the rainy areas in order to preserve the buildings.