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This certificate is honorably awarded to

Dr. Jafar Taheri

in appreciation of generously sharing his expertise through a lecture entitled:

"The Scientific Roots of Persian Architecture Revival in the 10th and 11th Centuries"

in the International Conference on Architecture and Mathematics held at the University of Kashan.

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The Scientific Roots of Persian Architecture Revival in the 10th and 11th Centuries

Jafar Taheri[1]

Abstract

The revolutions occurred in cultural, scientific, political and economic spheres of medieval Islam in the tenth and eleventh centuries have not been ineffective on the resurrection of the architecture in this period. In this study, two interwoven issues of this golden age are discussed: first, the connection between science and architecture, and second, the scientific roots of the Persian architecture revival, with an emphasis on the role of mathematical sciences. Discussing these issues entails the comprehensive study on the threefold domains of Theoretical Wisdom and their impact on the intellectual atmosphere of the Islamic community and on the guilds of builders/craftsmen which were being formed then. In this paper, based on the interpretation and analysis of the texts, the impacts of (1) philosophical and scientific thinking, (2) advancements in mathematical sciences, and (3) participation of mathematicians such as Banū Mūsā, al-Sufī, Abu-l-Wafā›, al-Karajī, al-Bīrūnī, and Alhazen, on the process of formation and revival of Persian architecture (and its decorations), are investigated. It is expected that the survey of these considerations as well as the quality of the mathematicians› teachings grasp and digestion in the guilds of builders/artisans, cast light on the relation between the sciences and architecture in medieval Islam.

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