

Geometric Continuity in the Form of Iranian Domes, Study of Prominent Safavid and Sasanian Domes

Authors : Nima Valibeig, Haniyeh Mohammadi, Neda Sadat Abdelahi

Abstract : Persian domes follow different forms depending on the materials used to construct and other factors. One of the factors that shape the form of a dome is the geometric proportion used in the drawing and construction of the dome. Some commonly used proportions are revealed by analysing the shapes and geometric ratio of the monuments' domes. The proportions are achieved by the proficiency of the skilled architects of the buildings. These proportions can be used to reconstruct damaged parts of the historical monuments. Most of the research on domes is about the historical or stability features of domes, and less attention is made to the geometric system in domes. Therefore, in this study, we study the explicit and implicit geometric proportions in Iranian dome structures for the first time. The study is done based on a literature review and field survey. This research reveals that the permanent geometric rules are perfectly used in the design and construction of the prominent domes.

Keywords : geometry in architecture, architectural proportions, prominent domes, iranian golden ratio, geometric proportion

Conference Title : ICCAHHH 2022 : International Conference on Cultural Architecture, Humanities, History and Hermeneutics

Conference Location : San Francisco, United States

Conference Dates : June 02-03, 2022