Mathematics and Persian Architecture

Call for Papers
Special issue of the Nexus Network Journal
Guest Editor, Reza Sarhangi

Since its establishment in ancient time by the Achaemenid Cyrus the Great in the sixth century BC, Persia (now Iran) has left numerous marks on the civilizations and cultures in a large part of the world from North Africa to Europe, India, and China. Longer than the inception of the Persian Empire is the history of the people who lived in this land. The urban settlements in the Iranian plateau date from 4000 BC. One of the earliest evidence of wine, which dates to 5400 BC, is from Hajji Firuz Tepe in the Zagros Mountains of Iran. The Achaemenid Empire was succeeded by the Seleucid Empire (the Hellenistic conquerors who then were influenced by Buddhism), Parthians (from the Eastern part of Iranian plateau who were influenced by Hellenistic culture), and Sassanids (who established Zoroastrianism as a governmental religion). The Sassanid dynasty was ended by Muslim Arabs in the seventh century. The interchange of cultures and combinations of arts among nations living in a vast area conquered by Arabs created a type of art, known as Islamic Art. Even though there are common elements in the arts of included nations, each region and nation has kept its own identities in its presentation and performance. The flourish of Islamic art was in the period 800-1600 AD. Persians, because of their background in art and architecture, were one of the most influential among these nations. In buildings constructed by the side of the Silk Road that were used by caravans, there are wall paintings by Chinese artists depicting Persian faces of the Sassanids period. On the other hand, most faces and dresses in the traditional Persian miniature had oriental origins. This art reached its peak during the Mongol and Timurid dynasties, which conquered parts of China and Iran during the thirteenth to sixteenth centuries. The Safavid dynasty (1501-1736) was the most significant ruling dynasties of Iran since the Islamic conquest of Persia. The UNESCO World Heritage Isfahan flourished particularly in the sixteenth century under the Safavid dynasty.

Invaded by Greeks, Arabs, Turks, Mongols, and others, Persia has always reasserted its national identity through a distinct cultural entity. Persian Architecture is a major part of its identity. Many palaces, fortresses, mausoleums, temples, churches, and masques have been built in the past few centuries in Iran, which added to the architectural heritage of this land.

Architects, historians, and mathematicians, especially practitioners in the field, are invited to submit articles about Persian Architecture and its relationships with mathematical aesthetics of symmetry, balance, proportions, harmony, and their executions, from antiquity to modern times. The goal is that in a special issue of Nexus Network Journal, which is devoted to this topic, the authors will investigate selected architectural structures for their connections to mathematical aesthetics, which are built throughout the long history of Iranian plateau.

For paper preparation, consult the submission guidelines:
http://www.nexusjournal.com/submission-guidelines/submission-guidelines.html. Submission does not guarantee publication; all submissions will be peer-reviewed before being accepted for publication. Reviews of appropriate books and exhibits are also welcome. Submissions in electronic form (.doc or .pdf) should be sent to Reza Sarhangi: <rsarhangi@towson.edu>. See http://pages.towson.edu/gsarhang/index.html

- Deadline for submissions for review: April 1, 2011
- Notification of acceptance: September 1, 2011.
- Deadline for submission of final manuscript: October 31, 2011.

Founded in 1999, the Nexus Network Journal (NNJ) is a peer-reviewed journal for researchers, professionals and students engaged in the study of the application of mathematical principles to architectural design. Its goal is to present the broadest possible consideration of all aspects of the relationships between architecture and mathematics, including landscape architecture and urban design. Bibliographic Data – First published in 1999 by Kim Williams Books – Editor-in-Chief, Kim Williams, kwb@kimwilliamsbooks.com – Since 2007 co-published and distributed by Birkhäuser Verlag, Basel – From 2009 (vol. 11) published electronically and in print, 1 volume per year, 3 issues per volume – Format: 17 x 24 cm – ISSN 1590-5896 (print) – ISSN 1522-4600 (electronic) – Back volumes are available – electronic access for subscribers: http://www.springer.com/birkhauser/mathematics/journal/4

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