

Hamмам: Bath House, an Ancient Heritage in Iran

Hourieh Mashayekh
MSc. Architect and Town Planner
906-257 Lisgar St. Ottawa, Ontario
K2P 0C7 Canada
hourimashayekh@yahoo.ca

Hayedeh Mashayekh
Coordinator and Translator
159-Mostofi Ave, Tehran
14347 Iran
hayedeh_m@yahoo.com

Abstract

In reviewing Iranian architecture, one realizes that the basic geometrical form is a square that is transferred to a dome, to create a tangible expression of mathematics and architectural beauty. In achieving a dome from a square, the architect creates not only the geometrical forms such as triangle, hexagon, and other polygonal shapes, but also provides an architectural environment in which these shapes blend with each other. Examples of which are visible in mosques, schools, public baths and other public buildings. The dome of Ganjali Khan Bath is a successful presentation of transferring a square to a beautiful dome, without the use of a belt or other metal elements to absorb the pressure.

Introduction

Have bow them and magnified my name, for in my heart there burns a living flame

Transpiercing Death's impenetrable door, Hafez, 14th century

In reviewing Iranian architecture, it becomes evident that the basic geometrical form is a square that is transferred into a dome, a tangible expression of mathematics, and architectural beauty.

Iranian architecture shows that the decorative arch and vault are not only decorative but also fulfill structural functions.

The survival of large domes from an early period proves that from *Sasanian* times the Persians had a satisfactory method of roofing square rooms with round roofs, quite different from the method which had been developed in Syria and was practiced in the Greek cities. These two methods mark the geometry and mechanical difference between the squinch and the pendentive. Briefly the upper corners of a square room can be brought within a manageable reach of a round dome by spanning them with an arch that makes a squinch [1].

In Iranian architecture vault is basically a structural element, employed in order to achieve the best result in shaping a dome from a square base, at the same time also creating an architectural space. A developed pure technique, the structure itself appears as an aesthetic or decorative element that bears weight and shapes the entire architectural design.

This structural form fulfills two equally important functions of decoration and structure, which have become unique methods in the Islamic architecture of Iran.

Bath House (Hamмам)

A public bath was an important part of the complex of buildings in large cities in Iran. Public baths were divided into four main parts: an entrance, a cloakroom, a main door (middle corridor)

and a hot chamber (*garm khaneh*) where washing took place. Cloakrooms were usually octagonal, occasionally square. A handsome, usually octagonal pool surrounded by a foot-washing channel (*pa shuyeh*) stood at the center of the cloakroom [2].

The complex (*Ganjali Khan*) is situated in the middle of the city of Kerman and next to the Bazaar of Kerman in south Iran; it occupies an area of 11000 m² and includes a palace, a mosque, a bathhouse (now converted to a museum of anthropology), a caravanserai, and a small bazaar.

The layout, the space, and the architecture of the *Ganjali Khan* bath was such as to satisfy the most exacting of tastes. The placement of the baths alongside other public buildings within the texture of the city, the supply and storage of water and the removal of sewage, the maintenance of the right level of the temperature and humidity, the size elaboration or simplicity of the edifice were important issues in the design and execution of this building.

The bathhouse is a unique building because of its ornamentation in the style of two historical periods, the *Safavid* (17th Century) and the *Ghajar* (19th) and because of its tiles, painting, plaster work, the decoration in the cladding of the ceiling and the interior of the dome, and the arrangement of glazed skylight named *goljam*.

This bathhouse is 46 meters long and 30 meters wide. It contains an entrance portal (*Sar Dar*), a corridor, a closet, a place between the hot area and others, a source pool, a private bathhouses, and a furnace. In the closet and lobby area, there are some symmetrical arches and columns, and the light comes from a few openings in the roof so the rays rush inside and reflect on the water. One particularly attractive area of the warm-room consists of a pool of cold water, covered by a tent-shaped glass roof supported by eight pillars. These stone pillars, each carved from a single piece of stone, show a herringbones patterned ceilings with a mild slope placed upon them.

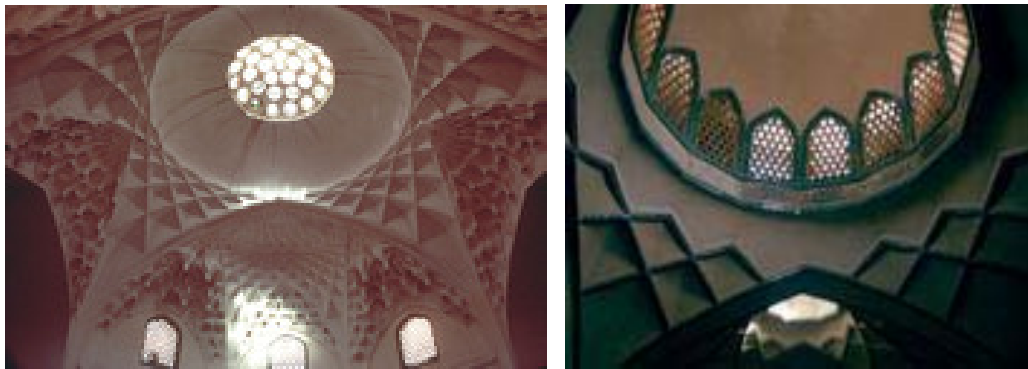


Figure 1: (a) *The interior view of the cold room, Blair and Jonathan Bloom 1984, (b) The dome in the hot room, Khosro Bozorgi, 1999*

References

[1] Arthur Upham Pope "A Survey of Persian Art" Vol. 3, Architecture, pages 1235-1237, Oxford University Press, London and New York, 1938.

[2] P. Varjavand, Splendor of Iran 2001 Volume 2 page 274.