

Semi-domes

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Abstract Domed structures have had a long history in Iran. Because the shortage of wood in the central plateau of Iran was a serious hindrance to produce flat covers; Thus, Iranian architects in order to compensate this defect -shortage of wood- used masonry materials to create curve and spherical forms such as arches, vaults and domes. In addition to climate factor, spiritual and religious beliefs have also played a significant role in creating such forms. One of the domical shapes in Iran's traditional buildings is semi-dome which can often be seen in the coverage of the entrances and the iwans (porches) of buildings. In this paper, library sources and field researches are applied to introduce and study Iranian semi-domes, their types and behavior against loads and forces. Also the coverage of Shagerd iwn in Friday Mosque of Isfahan as an example of semi-dome and its muqarnas decoration will be introduced.

Keywords semi-dome, structure, rib, iwn, muqarnas