

Site responsive characteristics in the Indigenous architecture of Khasi in Meghalaya



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Fig. Point Cloud Model of Khasi House



Fig. Mesh Model of Khasi House



Fig. Textured of Khasi House



KHASI

The Khasi people, known as Ki Khási, are an indigenous community primarily residing in the eastern regions of Meghalaya, including the Khasi and Jaintia Hills. They represent nearly half of Meghalaya's population and are culturally significant to the state. The Khasi language, part of the Austroasiatic family, includes various dialects such as Khasi, Jaintia, Lyngngam, and War. Khasi society is matrilineal, with lineage and inheritance passed through the maternal line. The youngest daughter traditionally inherits property, highlighting the tribe's reverence for women.

Khasi villages are characterized by close-knit buildings with stone stairs, strategic placement for protection against storms, and sacred groves nearby. Their architecture includes unique oval or egg-shaped houses with thatched roofs, constructed from wood and bamboo. These houses face east, symbolizing reverence for the sun.



Fig. Plan of Khasi House

KHASI HOUSE

The Khasi house, primarily found in Meghalaya, features a unique oval or egg-like shape with an east-facing orientation. Constructed using local materials like wood and bamboo, these homes have thatched roofs resembling an overturned boat. The design, which avoids metal, reflects cultural beliefs and environmental harmony. The houses are built on plinth foundations with strategic placements for protection against the elements. The architectural layout includes a porch, living area, and private quarters, with each element blending practicality and traditional Khasi values.

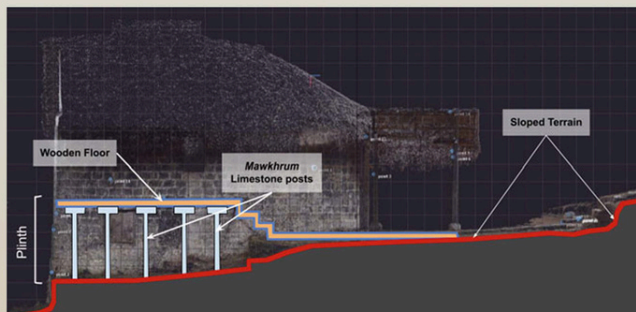


Fig. Section of a traditional Khasi house

The regional physiography and availability of natural resources play an important role in building placement on a highland plain ground and steep slopes as a defensive measure and protection from direct freezing winds. The selection of building materials is dependent on locally available natural materials to design the building envelope. These are designed to adhere to the climatic conditions of the place. Locally available bamboo and timber are widely. The ground floor is typically an earthen floor with mud plaster. It is occasionally raised slightly, filled with stone and mud.



Fig. Roofing system in Khasi house



Project: Creating Digital Heritage of Representative Architectural Marvels from Each State of North East India - DST / Govt of India

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