

FRACTAL GEOMETRY IN TEMPLE ARCHITECTURE

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Introduction-

Fractals refer to geometric shapes that repeat themselves as the scale changes. These are never ending patterns that are self-similar. The property of self-similarity refers to the property where the object retains its original proportions even after it undergoes a transformation.

Fractal geometry in Hindu Temple is prominent in the design of the Shikhara, which is a significant large characteristic tower, symbolic of a mountain peak. the fractal arrangements owe their existence to the desire of the people to have the tower resemble the contour of a mountain with its varied heights. The fractal nature of the Hindu Temple is also closely related to Hindu philosophy, the universe is seen as a whole itself. This is also reflected in the plans, where the plain sides are replaced by interior and exterior projections.

Indians were the people those worshipped the nature and are curious to reveal the mystery of creation. From nature they got then hint of creation; The principal of self-similarity, iteration, repetition. They observed that, in the mountain, in the trees, in ground covers, in water, everything follows those principles. They gave their tribute as a form of temple to the ultimate creator by following the principle of his creation.

OBJECTIVES

1. What is Fractal geometry?
2. Fractal theory in ancient Hinduism.
3. Fractal in the formation of temple.
4. Evolution of plan forms and elevations through repetition.
5. Fractals in vastu-purusha-mandala
6. Reason behind the use of fractal geometry in Hindu temple architecture.

ABSTRACT

The self-similar repetitive geometry is known as fractal. The structural order followed by nature also adopted in the construction of Hindu temple. Fractal geometry plays a major part in the transmission of the symbolic intended meanings from the vision manifested art and architecture of the temple, to the intellect of human beings for perception in the correct sense. This paper is an attempt to find the role of fractals in different elements of Indian Hindu temples. It will also focus on finding the reasons behind the successful manifestation of fractals in Hindu Temples.

KEYWORDS- *self-similar, repetitive geometry, fractal geometry, Indian temple architecture,*