



Gender and space in temple architecture

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ABSTRACT

Architecture can be perceived as Masculine, Feminine, and Neuter. These principles can be observed all around from history till present. These are the fundamental philosophies of life. As per Vitruvius, Masculine interprets firmatas; feminine interprets venustas while neuter interprets utilitas. It has been observed from the literature that these parameters don't function independently and are dependent on each other. If we look on earth, wind, water, sky & fire all have their unique characteristics and depend on each other. All together they create balance and harmony. Few other examples are as follows Sun & moon –both are balancing the entire universe. Yin & yang - were in harmony with each other. This paper addresses a sensitive and ideological study based on balance, fluidity, harmony, style, engineering, and sustainability. This paper looks into the articulation of sacred geometry, golden ratios & ancient wisdom with masculine and feminine principles.

Keywords- Gender and space, Masculine and feminine principles, Gandikota, Madhavaraya temple

1. INTRODUCTION

This paper addresses a sensitive and ideological study based on balance, fluidity, harmony, style, engineering and sustainability. This paper looks into the articulation of sacred geometry, golden ratios & ancient wisdoms with masculine and feminine principles.

2. GENDER IN TERMS OF ARCHITECTURE

2.1 Vitruvius Theory

In architectural theory, Vitruvius 1960 [ca. 30 v. Chr.]: 3. Unpretentiously, Vitruvius explains that Firmatas will be assured when foundations are carried down to the solid ground and materials wisely and liberally selected Utilitas, when the arrangement of the apartments is faultless and presents no hindrance to use, and when each class of building is assigned to its suitable and appropriate exposure; Venustas, when the appearance of the work is pleasing and in good taste, and when its members are in due proportion according to correct principles of symmetry To secularize architectural inventions, “The frames used to visualize narratives and rituals must be, so to speak, polarized to face a common goal and synchronized to flow toward that goal.”

The space along which they move must be neutral, secular, empty—cleared of magic. In this artificial forward flow, material shelter (Vitruvius's firmatas) can and must accommodate function/opportunity (Vitruvius's utilitas). Exchanges are optimized within the neutralized flow, where they now obey the rule of law, the market forces of supply and demand, and the luck of the game. The glue holding the flow together gives raise to firmatas, created as an illusion, the Vitruvian criteria of firmatas and venustas represent inherent qualities of a building but utilitas is a relational value that depends on how aptly the building serves the user.

Venustas, Vitruvius himself realized, was more than a pretty face. This third element in his group of three architectural virtues refers to the exception, the inexplicable need to call on “cosmic” relationships in the form of ratios, angles of view, and ideas of order that had imparadised architecture at its origins, where minimalistic building elements intervened in an “always already” Real of cosmic architecture based on timings and placements. In architecture more generally, venustas was the “odd woman out” in the otherwise sympathetic union of utilitas and firmatas.

- FIRMATIS interprets Masculine principles
- VENUSTAS interprets Feminine principles
- Utilitas interprets Neuter

2.2 Characteristics of masculine principles

- Rigidity
- Strength
- Support
- Super impose
- Massive
- Angular
- Dominant
- Submissive/Subjugate

2.3 Characteristics of feminine principles

- Curvilinear
- Free flowing
- Soft curves
- Beauty
- Balancing
- Fluidity

3. FRACTAL GEOMETRY

3.1 Introduction and definition

Fractal means, the excursive geometrical forms, bearing self-similarity on different scales. According to the Fractal Foundation – “A fractal is a never ending pattern. Fractals are infinitely complex patterns that are self-similar across different scales. Repeating a simple process repeatedly in an ongoing feedback loop creates them. Driven by recursion, fractals are images of dynamic systems – the pictures of Chaos. Geometrically, they exist in between our familiar dimensions. Fractal patterns are extremely familiar, since nature is full of fractals. For instance: trees, rivers, coastlines, mountains, clouds, seashells, hurricanes, etc. Abstract fractals – such as the Mandelbrot Set – can be generated by a computer calculating a simple equation over and over.”

In Architecture, it acts as a mode of expression to reveal the beauty of the complexity. It gives wings to the ideas of an architect and reflects the process of energy flow of the universe through buildings and monuments. Hindu temples are one of the best examples of buildings with the fractal phenomenon, which were constructed in the past, long before the evolution of Fractal Theory.

3.2 Fractal Theories and Hindu Cosmology

Self-similarity” is the phenomenon of each part being geometrically similar to the whole. It is the core concept of the Fractal Theory. Interestingly, self-similarity is one of the basic principles of organization in the Hindu Temple Architecture. The Hindu Temple is designed and constructed as miniature forms of the Cosmos as envisioned in Hindu philosophy and beliefs. Hindu Philosophy describes the cosmos as holonomic. The holonomic character implies the virtue of self-similarity, homogeneity, isotropy and symmetries of various kinds. Like a hologram, each fragment of the cosmos is considered to be whole in it and to contain information similar to the whole.

3.3 Fractals in the Formation of Temples

The history of the evolution of the Indian Hindu Temples is a very vast field of study. Starting from the cave temples to the palatial temple complexes, all styles have followed an exhaustive path of evolution through experimentation. During Gupta period and onwards the temple architecture in India flourished in a much-disciplined manner. The architects, artisans and artisans gradually developed the aesthetic sense of complexity. As a result, the formation of Hindu temples became more complex and embodied an inherent sense of fractal geometry.

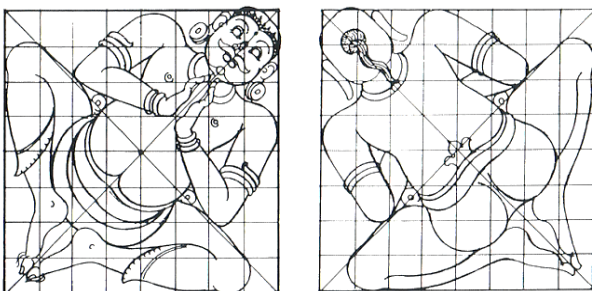


Fig. 1 the traditional Vastupurushamandala

The above figure shows the traditional Vastupurushamandala. There are mainly two types of mandalas; one is with sixty-four squares and another with eighty-one squares where each square is dedicated to a deity. (Figure 2)

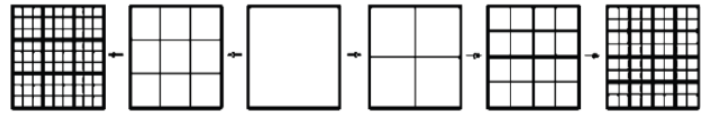


Fig. 2: Fractal characteristics of different mandalas and their iterations from the sakala

From left: Paramasaayika, Pitah, Sakala, Pechaka, Mahapitah, Manduka Chandita mandala

4. THE FIVE ELEMENTS OF NATURE

- Masculine elements: Earth and fire
- Feminine elements: water, sky, wind

To create a balancing effect of these five elements on the body and mind, Yoga, pranayama etc are the techniques generally adopted by men. Thus, it can be said that these five elements are derivations and expressions of a Unifying Creative Principle which is unmanifested and one. They have to be understood both in a material sense and a subtle sense. One has to delve deep and extract the inner meaning within each one

- By Earth, it is not merely the physical terrain or the human body but the strength of mind, steadfastness, determination and uninterrupted advancement towards the goal.
- By water, it implies the cohesive reality which flows into and holds all beings together and links each other to the Ultimate Reality.
- By fire it does not only mean the Universal energy that radiates heat and light but the inner fire that removes the cloak of ignorance and destroys all our doubts and allows the Truth to shine despite all obstacles.
- By air, it not only implies the rarified force that exists in the universe but the energy that allows digestion, removes wastes and ensures circulation in the human body. It regulates thoughts in our mind through steady breathing.
- By space it means everything that encompasses us, the mind which is the vessel to receive all impressions, the heart which accepts love.

For eg. In a single living cell, the structure of the cell is the earth element, the liquid or cytoplasm within the cell membrane is the water element, the metabolic processes regulating the cell is the fire element, the gases regulating the functioning of the cell is the air element and the space occupied by the cell denotes the space element.

4.1 Effect of feminine and masculine principles in temple architecture

AS we discussed earlier the feminine represents beauty, nature, submissive as well as fluidity& a masculine principles represents Rigidity, dominance, subjugate, Massive, heavy, angular, solid, strength. This chapter addresses how the temples were articulated by using these feminine& masculine principles to support/create neuter/ utilitas.

4.2 Influence of feminine principles in temple architecture

4.2.1 Temple precinct: A temple precinct typically have a Nandana vanam which balance & supports the microenvironment of a temple which have feminine characters such as trees will grow on their own, they were submissive, free in nature. A temple park will also have a koneru or stepped well which will balance and support the entire temple complex as a source, amenity, custom and aesthetical appeal. The “devudi manyam” or temple fields support the temple economically and act as a recreational space as well.

4.2.2 Temple complex: A Temple complex typically consists of gopuram, pradhakshina patha, artha mandapa, maha mandapa, Garbhagriha, cloister, kitchen, nata mandapa, supporting shrines.

4.2.3 Planning: Temples were planned by following the principles of Aagamasasthra, vashu purusha mandala and vinaysutra. The temple plans were generated using fractals and projections. These fractals or projections would be rectangular or curvilinear. While planning they have taken into account of panchabuthas which were forms of feminine and masculine principles.

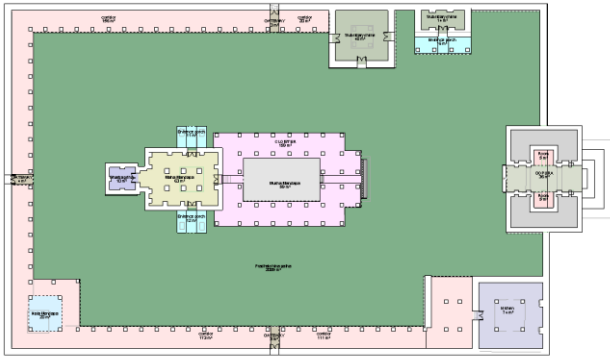


Fig. 3: Madhavaraya temple plan- Gandikota

4.2.4 Gopura: Usually, temples were located in raised platforms with gopuras. These gopuras were massive in form and have very intricate details and sculptures which were the articulation of feminine and masculine principles so that a harmonious form was generated as a whole. Here massive structure and dominative character represents masculine and sculptures and curvilinear projections represents feminine.



4.2.5 Pradhakshina pathas: The pradakshina pathas were articulated with a soft and hard scapes. Softscape interprets feminine and hardscape interprets masculine.

4.2.6 Garbhagriha: The garbhagriha were articulated with a massive structures and carvings. In addition to it the chimes of a bell, aroma of a camphor, magnetic fields, and Pancha lohas were indicating feminine and masculine principles. Altogether they are creating a balance and pleasant, spiritual environment.

4.2.7 Shikara: The shikara is articulated with fractals and sculptures in a hierarchy which emphasizes the importance of garbhagriha. The shikara is pointing towards the sky which depicts the universe and interprets feminine. And it has solid structural components which interprets earth which is masculine

5. CONCLUSION

Masculine and feminine principles are all around, these are very fundamental principles of nature. He supports she balances. Knowingly or unknowingly our temples were articulated by using these principles to make them functional and sustainable.

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