

The Role of Five Elements of Nature In Temple Architecture

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Abstract— Examine the extensive influence of the selected theories of nature in Architecture namely element of nature effects the role of five elements in Temple Architecture. "Theory of five elements of nature in context to the Temple Architectural Design 'To make student understand the basic principles of five elements of nature so that it forms the basics for study of temple design through these topics. One should have a reasonable understanding of its operational and economic implications, and lastly "To Evaluate the understanding of the relationship between space and design through five elements of nature" with the help of Hindu Temple Architecture.

Index Terms— Temple architecture, five elements of nature, human perception of architectural expression, and temple concept through cosmology and philosophy

1 INTRODUCTION

INDIA is well known for its rich heritage and variety of culture. Temples have always played an important role in India's history and culture. There are more than 6 lakh temples in India and about 1,80,000 temples in South India. India is not only famous for various states but also for the cultures and such historic background that the past still has so much power on the present world. Its remains and ruins play a major role in keeping India unique and attractive. Nowadays, people are so busy with the modern techniques and development, they are desisting the roots of the place and the essence of its character. These temples are decomposing day by day without any protection or consideration.

This topic is inspired by many inspiring temples and heritage of India by which it would inspire the people to stay in touch with their culture. This is a complex which would showcase the famous temples of India and its history by making it a tourist attraction spot to spread the importance of our culture. It would not only depict the temples and their heritage but also give a lifetime experience to live in that Era.

The Hindu temples commonly known as Mandir in Hindi and derived from the Sanskrit word 'Mandira', are identified by several names in different parts of India as koil or kovil in Tamil, devasthanam in Kannda and devalaya, in Telugu etc. In general Hindu temple structure can either be isolated structure or a part of complex. The character of Hindu temples reflected local architecture styles and the material and skills to which they related. The main forms and styles of the Hindu temple were established during 600-800 AD. The cell or shrine, the garbhagriha (usually square in plan), housed the image and was approached through a columniated porch or mandapa. The shrine was roofed with a pyramidal spire or vertically attenuated dome like structure known as sikhara. The temple as a whole was raised on a massive plinth and was often surrounded by subsidiary shrines and by an enclosing wall pierced by one or more gigantic gateway towers or gopurams. It is the outline and detailing of the sikhara and other roof-forms which determine the character of monumental Hindu architecture and give a formal as opposed to historical basis for its classification. The architecture of temples varies across

India, however while the basic elements of the temple are the same, the form and scale varied. For example as in the case of the architectural elements like Sikhara (pyramidal roofs) and Gopurams (the gateways).

2 ELEMENTS OF HINDU TEMPLE

It was the later half of the 7th century that the Hindu temple structures of India began to acquire a definite form (Fletcher, 1952). Similar to terminology used to distinguish the basic components of a Gothic Church (for example nave, aisles, chancel, spire, etc), the common elements of a Hindu temple which are known in their original sanskrit words are as follows:

The sanctuary as whole is known as the Vimana that consists of two parts. The upper part of the Vimana is called as the Sikhara and the lower portion inside the Vimana is called as the Garbhagriha (cella or inner chamber).

2.1. 'Sikhara' meaning the tower or the spire. It is the pyramidal or tapering portion of the temple which represents the mythological 'Meru' or the highest mountain peak. The shape and the size of the tower vary from region to region.

2.2. 'Garbhagriha' meaning the womb chamber. It is nucleus and the innermost chamber of the temple where the image or idol of the deity is placed. The chamber is mostly square in plan and is entered by a doorway on its eastern side. The visitors are not allowed inside the garbhagriha in most of the temples, only the priests perform the rituals and worship.

2.3. 'Pradakshina patha' meaning the ambulatory passageway for circumambulation. It consists of enclosed corridor carried around the outside of garbhagriha. The devotees walk around the deity in clockwise direction as a worship ritual and symbol of respect to the temple god or goddess.

2.4. 'Mandapa', is the pillared hall in front of the garbhagriha, for the assembly of the devotees. It is used by the devotees to sit, pray, chant, meditate and watch the priests performing the rituals. It is also known as 'Natamandira'

meaning temple hall of dancing, where in olden days ritual of music and dance was performed. In some of the earlier temples the mandapa was an isolated and separate structure from the sanctuary.

2.5. 'Antarala' meaning the vestibule or the intermediate chamber. It unites the main sanctuary and the pillared hall of the temple.

2.6. 'Ardhamandapa' meaning the front porch or the main entrance of the temple leading to the mandapa.

2.7. 'Gopurams' meaning the monumental and ornate tower at the entrance of the temple complex, specially found in south India.

2.8. 'Pitha' the plinth or the platform of the temple.

2.9. 'Toranas' the typical gateway of the temple mostly found in north Indian temple and

2.10. The Amalaka the fluted disc like stone placed at the apex of the sikhara.

3. EVOLUTION OF ARCHITECTURAL STYLES

The distinctive architectural styles of Hindu temples have so developed due to broad geographical, climatic, cultural, racial, historical and linguistic differences between the northern plains and the southern peninsula of India.

Broadly based on geography, Hindu temples have been classified into three different orders;

1. The Nagara or 'northern' style,
2. The Dravidian or 'southern' style, and
3. The Vesara or hybrid style which is seen in the Deccan between the other two.

There are also other distinct styles in peripheral areas such as Bengal, Kerala and the Himalayan valleys.

4. DEVELOPMENT IN TEMPLE ARCHITECTURE

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4.1 NAGARA OR THE 'NORTHERN STYLE'

The characteristic temple plan of the northern India was developed in the 5th century under the rule of Hindu dynasty. These temple consisted of all the basic elements; the garbhagriha surrounded by an ambulatory path, an outer portico with columns in front and a flat roof of stone. The temples constructed during this period were simple and less impressive compared to the temple constructed during the 10th -13th century temples.

Some of the examples from this period are temples at Sanchi, Tigawa and Deogarh. The development of sikhara started at the temple of Deogarh in Madhya Pradesh

(Brown, 1942). The temples constructed in the 8th century had smaller shrines and the sikhara became the crowning feature of the temples. The addition of mandapa (the pillared hall) to the temple started during this period itself. The other distinct character of this period was the rectangular wall around the temple and addition of subsidiary shrines at each corner. The most common examples of this period are the temples at Osian Rajasthan and the cluster of Jain temples built between 8th -12th century in Gujarat and Rajasthan. The temple of Teli-ka mandir, Gwalior and Vaital Deul, Bhubaneshwar were unique and inspired from the early Buddhist architecture with rectangular plan and the barrel vault roof of chaitya hall. These temples don't make the full composition of Hindu temple as they only consist of main sanctuary with neither the mandapa nor the portico. This form of architecture was abandoned by the architects in the north but was accepted in the architecture of south India. A distinct architectural style developed in the temples of Orissa (7th to 11th century). The elliptic curve of sikhara from the earlier periods were modified as a perpendicular prismatic tower and converged near the peak. For the first time in history special attention was given to the construction of mandapa; the roof of the mandapa was now pyramidal with tapering at the top and lower than the sikhara. The finest examples of this period are the Lingaraja temple, Bhubaneshwar, the Jaganath temple Puri and the Sun temple Konark with their sikhara height ranging from 43 m to 57 m high.

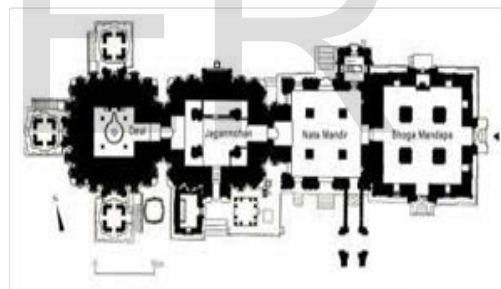


Figure 1.1



Figure 1.2

Figure 1.1 & 1.2, Plan and view of the Lingaraja Temple (Source:www.indoarch.org)

A parallel development to the Orissa temple, took place in the central India during the 9th to 11th century. The temples of Khajuraho are famous for their conical tower made of piles of stone with an arrangement of miniature towers called sikhara (Grover, 1980).

Each of these temples has portico, entrance hall and the sanctum. The roofs of various sections of the temple have distinct form.

Each and every facade, wall, ceiling of these temples have carved figures from the mythology and history. The finest examples are the Khandriya Mahadev temple, and Lakshmana temple, Khajuraho.

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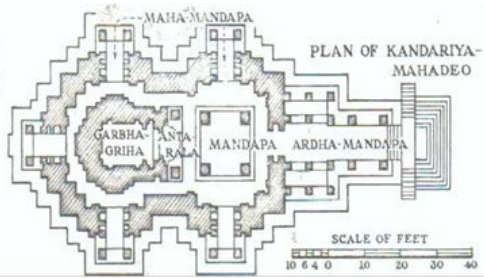
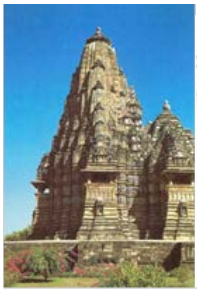


Figure 2.1

Figure 2.2

Figure 2.1 & 2.2, Plan and view of the Kandariya Mahadeo Temple (Source:www.indoarch.org)

4.2. DRAVIDIAN OR 'SOUTHERN STYLE'

Temple development in southern India started during the Chalukya rule in the early 7th century. These temples were inspired from the Buddhist architecture. The temples evolved from simple rock cut shrines to large and complicated structures. The temples in this period were large square building with a projecting porch and decorative pillars. The roof of the temple had small structure which later emerged as the shikhara. The entire temple is simple with minimal decoration. Some of the examples from this period are Lad Khan temple and Durga temple, Aihole. The rock cut structures developed during the 7th -9th century under the rule of Pallavas. The Pallava rulers led the way of dravidian style of temple architecture and they built the temples at Mahabalipuram. During the Pandya's rule the south Indian temples were added with the lofty gateways gopurams at the entrance with the basic temple composition. The gopurams made the temple visually attractive and also provided the temples with an enclosure. The gopurams evolved from a rectangular base with a pyramid crowned with a barrel vaulted form. In the 11th century the Chola rulers built one of the tallest temples of that time the Brihadeshvara temple, Thanjavur with a height of 60 m (Hardy 2007). In the later period the temples extended and became more intricate. More mandaps were included for various activities like dancing, assembly, eating, marriages, etc. The Dravidian style concluded in a series of extended temple cities or townships. The finest example of the temple township is the temple at Srirangam and Madurai with several concentric enclosures.

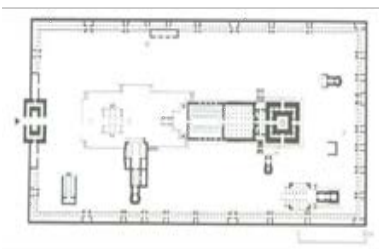


Figure 3.1

Figure 3.2

Figure 3.1 & 3.2 Plan and view of the Brihadeshvara Temple (Source:www.indoarch.org)

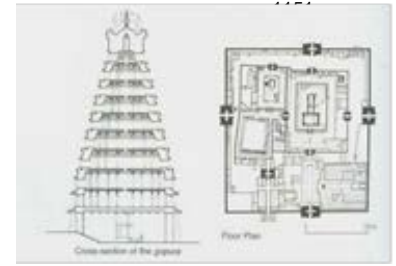


Figure 4.1

Figure 4.2

Figure 5.1 & 5.2 Plan, Gopuram-section and view of the Minakshi Sundaresvara Temple (Source:www.indoarch.org)

4.3. THE VESARA OR THE KARNATAKA DRAVIDA OR DECCAN STYLE

The term Vesara is believed to have been derived from the Sanskrit word vishra meaning an area to take a long walk. The quarters of Buddhist and Jain monks who left urban areas to live in cave temples were called viharas. This is also in conformity with the prevalence of Vesara style of architecture in the Deccan and central parts of South Asia vis-à-vis Nagara style prevalent in North India and Dravida style prevalent in South India.

Accordingly, the Vesara style contains elements of both Dravida and Nagara styles. The Vesara style is also described in some texts as the 'Central Indian temple architecture style' or 'Deccan architecture'. However many historians agree that the vesara style originated in what is today Karnataka. The trend was started by the Chalukyas of Badami (500-753AD) who built temples in a style that was essentially a mixture of the nagara and the dravida styles, further refined by the Rashtrakutas of Manyakheta (750-983AD) in Ellora, Chalukyas of Kalyani (983-1195 AD) in Lakkundi, Dambal, Gadag etc. and epitomized by the Hoysala empire (1000-1330 AD).



Figure 5.1

Figure 5.1, Plan of the Dravida and Nagara styles Temple (Source:www.indoarch.org)

5. COSMOLOGY AND HINDU TEMPLE

According to the ancient Hindu scriptures, the temple is the microcosm of the cosmos and the cosmic order is perceived as integral to the human body, mind and spirit; with the human being a microcosm (Hardy, 2007). The Hindu temple structure presents the significant information about the science and cosmology of the period in which they were constructed. It is a symbolism of the outer and the inner cosmos where outer cosmos is expressed in terms of

various astronomical connections between the temple structure and the motions of the sun, the moon, and the planets, whereas the inner cosmos is represented in terms of the consciousness at the womb of the temple and various levels of the superstructure correspond to the levels of consciousness (Kak, 2002).

The temple is a link between the physical world of man and divine world of God. And to connect them, the plan of cosmos were graphically copied in the foundation of the temples called as the Vastupurashamandala. The Hindu architecture, religious or vernacular, in the ancient times were based on the geometry of the Vastupurashamandala. In the words of Stella Kramrisch, "The temple is the concrete shape (mūrti) of the Essence; as such it is the residence and vesture of God. The masonry is the sheath (kośa) and body. The temple is the monument of manifestation." The expansion may be seen either as proceeding from the central point of the garbhagrha in all the directions of space, reaching to the bindu above the finial of the temple and beyond, or as a manifestation held together by a tension between the bindu and the garbhagrha, with the axis joining the two being the world axis (Kramrisch, 2002).

6. THE CONCEPT: - VASTUPURASHAMANDALA

The Hindu philosophy was among the first to relate the human figure as the basis of a system of proportion, which was years later demonstrated by Leonardo da Vinci and by Le Corbusier in Modular system of measurement. In Hindu philosophy the form of the purusha (human) body was made to suit the abstract idea of the square, as the supreme geometric form (Groover, 1980). The Vastupurashamandala is derived from three separate words each having a specific meaning where vastu refers to physical environment, purusha refers to energy, power or cosmic being, and mandala is the diagram or chart (Rian, et al. 2007). The basic form of the Vastupurashamandala is the square and square is the important and ideal geometric form in Hindu philosophy, which represents the earth. All the necessary forms like the triangle, hexagon, octagon and circle, etc can be derived from the square. The four sides of the square represent the four cardinal directions. The square also symbolizes the order, the completeness of endless life and the perfectness of life and death (Michell, 1988). According to Hindu beliefs, man's everyday life is also governed by the number four as in four classes (varnas), four phase of life, four great eras, four head of Brahma (the creator God), the four Vedas, etc. (Exoticindiaart, 2003). Similarly, the circle represents the universe and is considered as the perfect shape, without any beginning and end, suggesting timelessness and infinity, a typically heavenly feature. The mandala is actually a square subdivided into smaller squares in the form of a grid with each square unit clearly marking the areas of respective gods. The most commonly used mandala is the square divided into 64 and 81 squares. Mostly the square of the mandala on its outer periphery are divided into 32 smaller squares, in accordance to the astrological calculation called nakshatra, representing the constellations or the position of planets through which moon passes in its monthly path. The closed polygon of thirty-two squares is

symbolical to the recurrent cycles of time as calculated by the movements of the moon (Gosai 2002-2008). The four directions lie outside the mandala which represents the meeting of the earth and the universe as well as the movement of the sun from east to west and its rotation to the northern and southern hemispheres. The central portion of the mandala is the place for the Brahma, the creator, and the rest squares are the position of other Gods as per their relevance.

7. VASTU AND THE FIVE ELEMENTS

Vastu or the Indian Feng shui is the ancient Vedic tradition of combining architecture and land development with the energies of the five elements and the cardinal directions. Living in accordance with Vastu is said to solve most of life's problems. The balance or imbalance among the elements determine the conditions of one's living space.

7.1. Water-Water is associated with conception of new ideas, thoughts, healing energy, restoration of health etc. Water dominates the North direction in buildings. When water is in a balanced state in a building, it induces a spiritual and philosophical attitude to life. For eg-placement of water sources like wells, water tanks etc in the North direction gives maximum advantage.

7.2. Air-Air represents growth and is associated with movement, joy and happiness. Air dominates the East direction. When air is in a balanced state, it induces courage and perseverance to achieve your goals. For eg-placement of doors, windows etc should be in the East or North east direction to get maximum benefit

7.3. Fire-Fire is the driving force behind all life processes and South is the direction of fire. When it is in a balanced state, it induces power, confidence, fame recognition and money. For eg-geysers, fireplace and kitchen in the South/South east direction would provide maximum benefits.

7.4. Earth-Earth represents stability and balance and dominates Centre and Diagonal directions. When it is in a balanced state, it induces stability and a feeling of peace and harmony. for eg-Since earth is connected to all five senses of the human body, sleeping with the head towards the south helps us to draw maximum positive energy from the cosmos.

7.5. Space-Space represents expansion and enhancement and dominates the Western direction. When it is in a balanced state, it induces knowledge and awareness to understand new and creative ideas. For eg- the Brahmasthan or the central portion should be built in such a way that light enters its centre and it should always be kept open. Since these five elements are related to our five senses taste, smell, hear, touch and sight the aim of Vastu Shastra is to

enable a perfect construction and to correct the internal and external imbalances and ensure a peaceful and stress free life.

the temple Therefore the large squares of *mandala* were divided into thousand squares thus virtually forming a graph paper for the architect to facilitate him to add a unit at one side and setting back on the other.

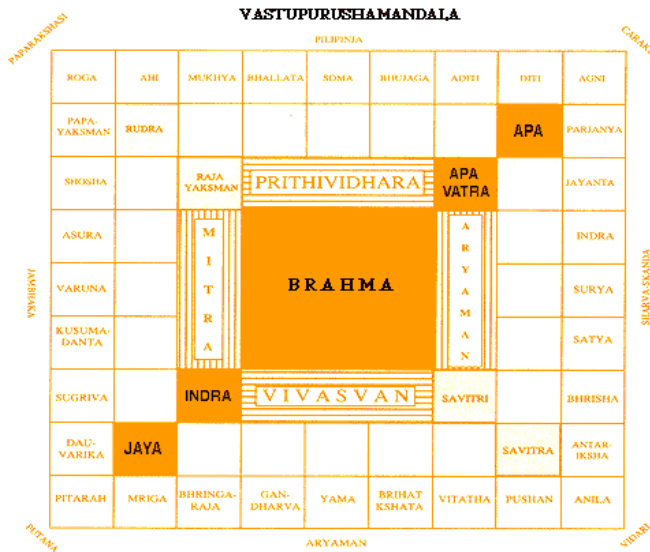


Figure 6 (Vastupurushamandala)

The vastupurushamandala are the square grids and are of various types formed from the fundamental shape, the square. The smaller squares in the grid are called as the one pada and they may vary from 1, 4, 9, 16, 25, and so on 1024 and follows a geometric progression series of 1, 2, 3, 4, 5, U, 32 with the common factor 2. There can be even numbers of pada and odd numbers of pada in a mandala and are called as yugma mandala and ayugma mandala respectively. Vastupurushamandala has different names according to the numbers of pada within the grid. The mandala having 1,4,9,16,25 and 36 numbers of pada within the grid are known as sakala mandala, pechaka mandala, pitah mandala, mahapitah mandala, manduka chandita mandala and paramasayika mandala, respectively.

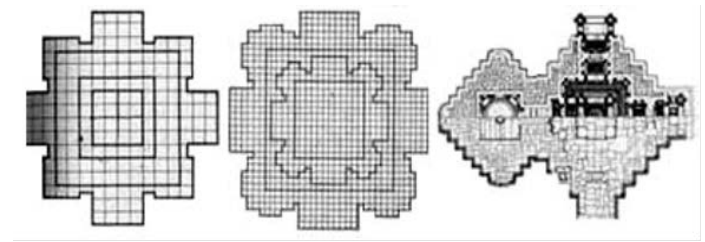


Figure 8 (Vastupurushamandala)

8. ROLE OF FIVE ELEMENTS OF NATURE AND HINDU TEMPLE

The Divine reveals the glories of this universe to mankind through Prakriti or Nature. No one can comprehend nature. It presides over the destinies of all creatures. Continual change is the very nature of creation. It is impermanent and immutable. The Creator is the only Unchanging eternal entity amongst this changing world.

The entire cosmic creation begins from the point of the Pancha Bhutas or the 5 elements. They are Earth or Prithvi, Water or Jal, Fire or Agni, Air or Vayu, Ether or Akash. These five elements contain five characteristics. They account for the five faculties of Shabda(sound),Sparsha(touch),Roopa(sight),Rasa(taste),Gandha(smell).Thus every individual has these distinct five faculties as each of these faculties has emanated from one particular element.

Akash or Ether is the first element and accounts for the emergence of the organ of hearing-the ear and is represented by sound. It represents the space in which everything takes place

The second element is Vayu or air and the skin is the product of the principle represented by touch. It represents the gaseous state of matter and is responsible for the respiratory system.

The third element is Agni or fire and the eye is the organ representing sight. It represents form without substance and is responsible for digestion and perception.

The fourth element is Jal or water and is represented by the organ tongue which is used for the dual function of taste and speech. It represents the liquid state of matter and is responsible for fluid metabolism in the body. Blood, lymph and other fluids are considered as water elements.

The fifth element is Prithvi or earth and the nose is the organ representing smell. It represents the solid state of matter and is responsible for the physical constitution of the body. Bones, tissues and teeth are considered as earth elements.

Earth or Akash is the most subtle element, each element in turn is used to create the next element, each less subtle than the next. The basest element earth can be perceived by all

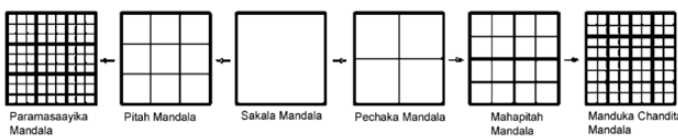


Figure 7 – The various types of *Vastupurushamandala*(1, 4, 9, 16,64 and 81) (Source: Rian, et al 2007)

The *Vastupurushamandala*, having all the geometrical, astronomical and human properties was the basis of the ground floor plan for all Hindu temples. The basic shape acquired by the temple plan is the outer most ring of square of the *mandala* forms the thickness of walls of main shrine. The central 4 squares acquire the place of the main deity and the inner ring of 12 squares form the walls of the *garbhagriha* and the next 16 to 28 forms the *pradkshina patha*. These simple divisions of square with many permutations and combinations became the base for the complex structures of the temple; in the form of orthogonal and stellate plans of

five senses sight, hearing, smell, taste and touch. The next higher element water has no smell but can be heard, felt, seen and tasted. Next comes fire which can be heard, felt and seen. After that comes air which can be heard and felt. Last comes Akash which can only be heard.



Figure 8 (Pancha Bhutas or the 5 elements)

9. KARMENDRIYAS AND JNANENDRIYAS

All the external sense organs which enable us to interact with the material objects of the world like the eyes, ears, nose, tongue and skin are called Jnanendriyas or organs of cognition and the internal organs of action that facilitates our sensory contact with the outer world like Speech and the mouth, Grasping and the hands, Walking and the feet, Procreation and the reproductive organs, Elimination and the Anus are called Karmendriyas.

The Karmendriyas perform acts in the world and receive knowledge while the Jnanendriyas discriminate the good and the bad and through the mind, offer them to the Atma. Thus these organs which are connected with Prakrithi can attain the Atma only through the mind. The combined operations of all these sense organs accounts for the human personality. The ten organs, the five elements and the mind constitute the Shodasha Kalas or the Sixteen Kalas. Every individual has these sixteen kalas but only the Divine is considered to have all these sixteen kalas in full perfection.

9.1. Smell is associated with Earth element.

Particles of matter or the solid forms of earth impinge on the sensitive cells within the nose, the changes arising there from is recognized as smell by the corresponding brain centre which receives the sensory impulses from the olfactory region of the nose through the nerves.

9.2. Taste is associated with water element

The liquid forms of matter is characterised by fluidity. The sense of taste is imparted by the solution of any substance on the tongue. The changes are induced in the taste buds of

the tongue and are conveyed to the corresponding brain centre through the sensory nerves.

9.3. Shapes and forms are associated with fire element.

Light energy in the visible spectrum is received and recognized by the eye. Thus this element represents that entity which provides definition to any material object. The perception of rupa or form is associated with this element.

9.4. Touch is associated with air element.

Here it represents electromagnetic energy whose distinguishing feature is movement. When energy impinges on the skin as heat or electrical sensation, the impulses are carried through the sensory nerves to the corresponding centre in the brain. Touch is essential for this knowledge and the quality is attributed to vayu or energy in motion.

9.5. Sound with ether element

There is no sound propagation through a vacuum. Sound requires a medium. Speech is conveyed to the ears through air. Vibration of successive particles of a medium is propagated as a sound wave. These impulses are then carried by the auditory nerves to the relevant centre in the brain which interprets it as sound. Thus akash or space or ether is considered to be a conveyor of sound.

Thus the five great elements represent the universe of matter-energy. Any imbalance in these five elements creates disharmony in the universe like natural disasters and disease in the human body. In the Bhagvad Gita, Krishna says, "The five elements along with the mind, intellect and ego sense constitute the lower nature. Know my higher nature which is pure consciousness". Just as the universe is made up of five elements, the mind is also made up of five elements in a subtle form. Depending on which of the elements dominate, the individual experiences different moods and sensations.

Some examples are-

- Feeling of heaviness, total comfort or discomfort- Earth element is dominant
- Feeling of oneness, togetherness, floating or flowing feeling- Water element is dominant.
- Feeling of wanting to keep moving, keep running away-Air element is dominant.
- Feeling of passion, fired by ambition-Fire element is dominant.
- Feeling expansive and light-Space element is dominant.

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.

10. THE FIVE ELEMENTS AND VISHNU ICONOGRAPHY

There is a curious link between these five elements and the Vishnu image portrayed in Vaishnavite temples. The Vishnu Puran and Garuda Puran refer to five forms of Vishnu-Vasudeva, Sankarshana, Pradyumna, Aniruddha, Narayana. The meanings of these names indicate a connection to the five elements.

10.1. Vasudeva means "that in which all things abide" indicating the element ether.

10.2. Sankarshana means 'complete attraction' or squeezing together indicating the element of Aeriality.

10.3. Pradyumna means 'the radiant one' indicating the element fire.

10.4. Anirudha means 'without obstacles' indicating liquidity or water.

10.5. Narayana means 'son of man, path of man, eternal man' indicating the element earth.

11. THE FIVE ELEMENTS AND SEVEN CHAKRAS

The five elements from which all creation is manifest are accessible through 'Chakras' located in the spinal area. The Chakras are energy centres in the astral body corresponding to five locations in the spinal region and two in the area of the brain. Each chakra is endowed with the capacity to awaken certain powerful features.

- Muladhara chakra or Root Chakra-it represents stability and support. It indicates Earth element.
- Swadishthan or Sacral chakra- it represents joy and general sense of well being. It indicates Water element
- Manipura or Solar plexus chakra- it represents power and wisdom. It indicates Fire element.
- Anahata or heart chakra-It represents love, forgiveness, compassion to all. It indicates Air element.
- Vishuddha or throat chakra-It represents faith in ourselves, trust in others, creativity. It indicates ether element.
- Ajna or brow chakra- It represents knowledge, dignity, intuition. It indicates ether element.
- Sahasrara or crown chakra- It represents perfect balance, oneness with the universe. It indicates ether element.

12. THE FIVE ELEMENTS AND THE DOSHAS OR INTRINSIC TENDENCIES

The five mahabhutas are present in the body and are represented in the form of doshas. There are three doshas vata, pitha and kapha meaning air, bile and phlegm. Doshas are very important as they form the basis for the maintenance of sound health, diagnosis and treatment of diseases. Each person is born with a particular proportion of these three doshas. Each dosha has specific organs or locations in which it is primarily found. If the balance between the doshas is disturbed, disharmony is created internally as well as with the external energy system and this results in disease.

Vata is composed of the elements space and air, pitha of fire and water, kapha of earth and water. Thus the physical and mental qualities of each dosha will reflect the elemental qualities of the element it is related to. Thus Vata types are thin, fast moving and quick thinking. Pitha types have an oily skin and fiery personality and Kapha types have solid body frames and calm temperament.

Since the doshas are the combination of the elements and the elements are the building blocks of everything in the universe, the forces of doshas are present in everything in

the universe. We can see these primal energies in our bodily functions, in the seasons of the year and the times of day. Unlike the elements, the presence of doshas can be observed as we can see the effects of their presence. Vata is the force of wear and tear that results in destruction or degeneration of the universe, Pitha maintains the creation and kapha is considered to be the creative force.

Fire, Air and Ether elements are light and tend to move upward. They move the energies of the doshas upwards producing lightness. Earth and water elements are heavy and move downwards producing heaviness in the body.

13. TASTE AND THE FIVE ELEMENTS

There are six tastes in the human body. They are sweet, sour, salty, pungent, bitter and astringent.

Tastes act upon the doshas and either increase or decrease the quality of the doshas. Given below is the particular type of taste and its corresponding predominant element.

1. Sweet- earth and water.
2. Sour-earth and fire
3. salty-water and fire
4. pungent-air and fire
5. bitter-air and ether
6. astringent-air and earth

14. THE THREE VITAL ESSENCES AND THE FIVE ELEMENTS

The three doshas have subtle counterparts Prana, Ojas and Tejas. Prana(vata dosha) relates to the air element. Tejas(pitha dosha) relates to the fire element. Ojas(kapha dosha) relates to the water element. They are the positive essences of the three doshas and they control the body-mind functions. They keep us free from diseases and promote positive health.

Prana-It is the subtle energy behind all mind-body functions and the primal life force. It is responsible for the coordination of breath, senses and mind. At the deepest levels of consciousness it governs the development of the higher states of consciousness.

The five prana vayus are apana, vyana, samana, prana, udana.

Apana is located in the lower extremities and is responsible for excretion. It is related to the earth element.

Vyana is located all over the body. It enables circulation and is related to the water element.

Samana is located in the navel. It regulates metabolism and digestion and is related to the fire element.

Prana is located in the chest and lungs and is responsible for breathing. It is related to the air element.

Udana is located in the throat and enables speech and communication. It is related to the ether element.

Tejas-It is the subtle energy of fire, the inner radiance through which we digest impressions and thoughts. It enables the mind to perceive and judge correctly. At the deepest levels of consciousness it gives spiritual insight.

Ojas -It is the subtle energy of water, fed through sensory impressions of taste and smell. It provides stability and endurance. At the deepest levels of consciousness it is the material power from which the soul produces the energy bodies and provides nourishment to higher states of consciousness.

15. THE SRI CHAKRA AND THE FIVE ELEMENTS

The Sri Chakra is considered to be the abode of the Divine Mother or the Goddess Lalitambika. The five downward pointing triangles in the Sri Chakra represent the Shakti principle and from them arise the five elements or the Pancha Mahabhutas indicating creation. The four upward pointing triangles represent the Shiva principle indicating dissolution. The union of the two causes the chakra of creation to evolve. Harmony in creation implies balance in the elements.

The Taittiriya Upanishad states that all creation is made up of these five elements which came from the Supreme Being. From the self (atma) space came into being, from space came air, from air came fire, from fire water, from water earth, from earth man and man has within himself the self (atma).

Thus, it is considered that the energy of the five elements is what awakens a person's divine channels. They are considered the five pillars of creation. When the spiritual energy of an individual is awakened, it awakens the energy of the five elements. Once he is aligned with the energy of the elements through advanced techniques, miracles begin to happen. He can heal others by connecting directly to the cosmic energy. This brings the highest peace, opens the heart, increases willpower and mental clarity and creates positive vibrations. Wisdom grows and life becomes more successful.

The Lord is the inner energy hidden in the five elements as the Creator. Understanding this inner energy and purifying it washes out negative illusions and creates a balancing effect in the five elements. This leads to 'Sthithaprajna' or a state of equilibrium.

16. BUDDHIST PHILOSOPHY ON ELEMENTS

In Buddhism, the first four elements are regarded as the base and the four properties associated are

- 1) water-cohesion or fluidity,
- 2) earth-solidity or inertia,
- 3) air-expansion or vibration,
- 4) fire-heat or energy content

In Buddhism the four elements are a basis for understanding and for liberating oneself from suffering.

- Earth element includes hair, nails, teeth, skin, flesh, bones and other physical or solid material of the body
- Water element includes bile, blood, sweat, urine and other liquid elements of the body.
- Air element includes internal air elements like respiratory system (breathing), intestinal system (wind in the bowels and other regions) of the body.
- Fire element includes internal fire mechanisms that provide digestion, warmth and other metabolic processes.

Two more elements ie the space element and the consciousness element are sometimes referred to in certain Buddhist texts.

According to Buddhist philosophy the four elements give rise to the five aggregates which are the ultimate basis of suffering which helps man to seek the four basic truths as expounded by Buddha.

FOUR ELEMENTS---FORM---FIVE AGGREGATES---SUFFERING---FOUR NOBLE TRUTHS

Aggregates-They are the five aspects that constitute the sentient being. They are form or matter, sensation or feeling, perception or cognition, mental formations or impulses and consciousness or discernment. The aggregates progress from form to feeling to perception to mental formations to consciousness.

Buddha is often compared to a great physician and his teachings are compared to medicine.

The four Noble truths-

1. The truth of suffering-identifying the illness and the nature of the illness (the diagnosis)
2. The truth of the origin of suffering-identifying the causes of the illness (the etiology)
3. The truth of cessation of suffering-identifying a cure for the illness (the prognosis)

4. The truth of the path leading to cessation of suffering-recommending treatment for the illness to bring about a cure (the prescription)

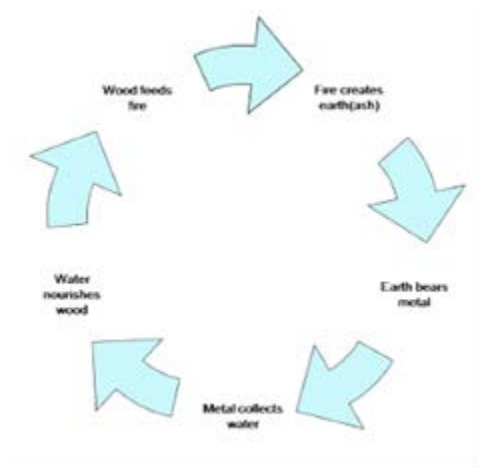
It is said that the brilliance of Buddha's philosophy was that it had as its aim the relieving of suffering hence no speculation, no belief about God, no leap of faith, nothing metaphysical was needed. It could be practiced by anyone, anywhere as the teaching is universal and experienced by all and its primary goal is the "Suffering and the end of suffering"

Thus to understand Buddha's teachings, it is necessary to have a deep insight to the elements and progress upto the goal of life which is the end of suffering and ultimately attain Divine bliss.

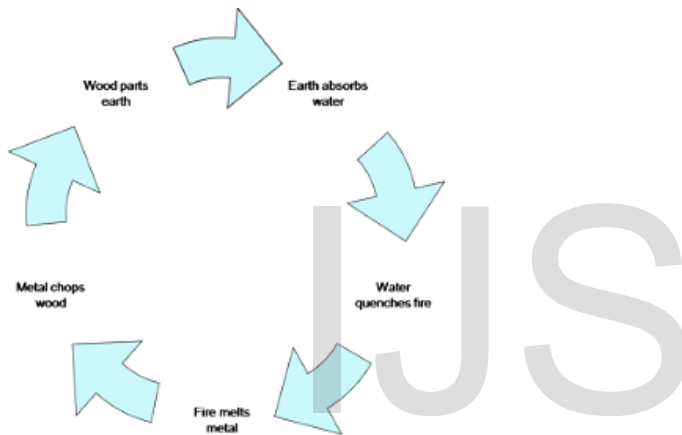
17. CHINESE PHILOSOPHY ON ELEMENTS



In this they have five elements Fire, earth, metal, water and wood. These elements are seen as ever changing and moving. There are two cycles of balance, one creation and the other destruction.



CREATION (GENERATING)



DESTRUCTION (OVERCOMING)

18. GREEK PHILOSOPHY ON ELEMENTS

According to Greek philosophy the four elements are fire, earth, air and water. The Macrocosmic manifestations of the elements are the land, the sea, the sky and the sun. They are connected with the sublunary spheres Heaven, Earth, Abyss (the subterranean water) and Tartaros (the subterranean fire). The microcosmic manifestations are the components of the human psyche-mental, astral, etheric and physical bodies. The elements also represent the stages in various processes of growth and transformation.

Earth is considered to be cool and dry, passive and rigid and therefore psychologically predominant in persons who focus extensively on physical reality and exhibit qualities of perseverance and realism.

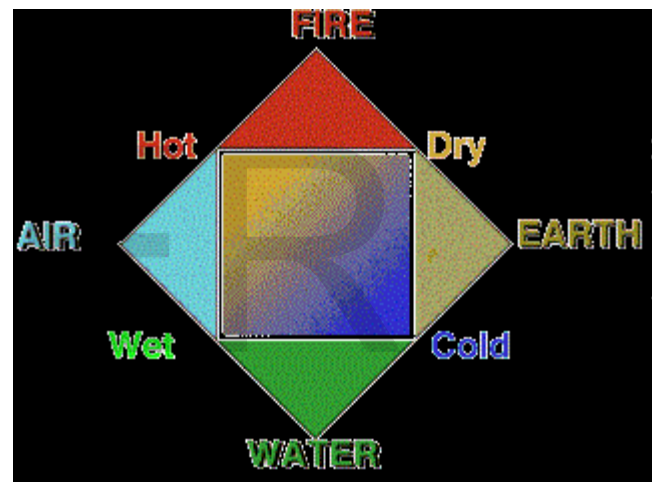
Water is considered to be fluid and associated with union and transformation and therefore psychologically predo-

minant in persons who tend to be flexible, flowing and inclined towards deep feeling.

Fire is considered to be hot and fiery and is associated with metabolic processes and therefore psychologically associated with the qualities of energy, assertiveness and passion.

Air is considered to be moist and warm and associated with differentiation and flexibility and therefore psychologically associated with the qualities of discrimination, critical thinking and knowledge.

In Greek philosophy Air has an essential role as the Spirit which unites the Mind with the Body. Air is important as a mediating element. It is considered the most spiritual element for it corresponds to the Spirit Breath and the Spirited Soul which unite the mind and body. It also constitutes the Cosmic Breath which unites our individual soul to the Universal World Soul.



19. THE ELEMENTS AND WESTERN ASTROLOGY

Western Astrology deals with four elements *earth*, *air*, *water* and *fire*. Each element is associated with subtle qualities and the birth chart of each individual gives a mix of these elements. Each element is assigned three signs called Zodiac signs (signs which are assigned according to the month of birth) The signs of a grouping exhibit certain similar characteristics.

Fire signs- inspired, outgoing, active-deal with the spirit. They are Aries, Leo and Sagittarius

Fire creates warmth and passion. Too much fire means taking unnecessary risks and surging forward without consideration for others. Too little fire means there's no joy in life, things seem repetitive, mundane and superficial. The ways to create a balance are to be enthusiastic about ideas but follow them diligently one at a time, feel joyful of life etc.

Air Signs- ideas, concepts-deals with the mind. They are Libra, Gemini and Aquarius.

Air is about breath, thoughts and currents. Too much air leads to too many thoughts, highly strung and too much dissipation of energy through excessive talk, work etc. Too little air implies not being objective, becoming easily bored and apathetic. The ways to create an air balance is to cultivate healthy ways to burn off excess energy and keep the mind calm.

Water signs- imaginative, introverted-deals with the emotions. They are Capricorn, Taurus and Virgo.

Water purifies and cleanses, too much water means unable to see with detachment and heavy with emotional baggage. Too little water implies dry, brittle, harsh with ourselves and others unable to find consolation. The ways to create a water balance are physically connecting oneself to more water spots, eating more fruits and vegetables with added water content etc.

Earth Signs- practical, grounded-deals with the body. They are Cancer, Scorpio and Pisces.

Earth connects us to bodily pleasures like taste, touch, smell, sight and hearing. Too much earth means too worldly, sensual and attached. Too less earth means unable to be grounded, to grasp reality and to think concretely. The ways to create an earth balance is to spend more time with nature, give adequate time to bodily needs etc.

Thus the key to a harmonious life is correcting all the imbalances in these elements in us and leading an enriched and fulfilling life.

Tarot cards- In this a deck of cards with symbolic imagery is used to serve as a means to stimulate our intuition and help us to tap into the unconscious parts of ourselves. The deck is divided into four separate suits Wands, Cups, Swords and Pentacles and each suit represents a particular energy and is associated to an element. Understanding the characteristics of each suit and their correlating element deepens one's understanding of the various Tarot card meanings.

Wands-Element is fire and signifies action, movement, fertility etc.

Cups-Element is Air and signifies ideas, concepts, abstract thinking etc.

Swords-Element is Water and signifies emotions, love, compassion etc.

Pentacles-Element is Earth and signifies physical body, possessions etc.

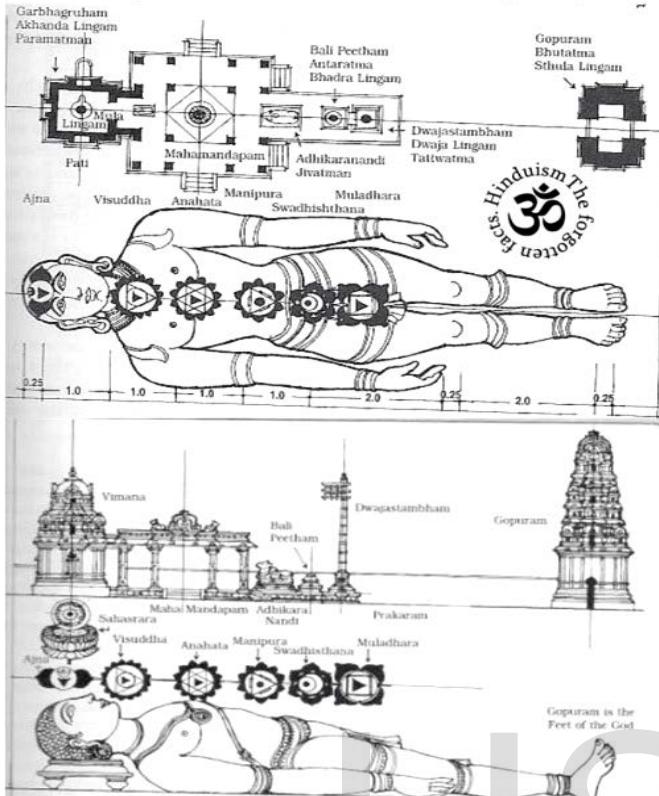
20. CONCLUSION

The diversity of Indian culture is evident from the different forms of artistic expressions in its built heritage. Among them is the temple architecture of India which has given India a truly magnificent form of architecture. The temples in India are found everywhere varying from small villages to the metropolitan cities. The Indian Temples are not only the abode of God forming the link between God and man and a place of worship, but they are also the cradle of knowledge, art, architecture and culture. The practices and traditions of temples has its influence on the social, economic and traditional values system in India even today as it was in the ancient times. Today even as new temples continue to be built the character of Hindu temples follow age old traditions though its architectural style is influenced by the five elements of nature, local architectural styles and locally available building material and skills.

This paper is a research into the foundation of the Hindu temples and the development of temple architecture in India. The distinctive architectural styles of Hindu temples have so developed due to its broad geographical, climatic, cultural, racial, historical and linguistic differences which are especially significant in the three major styles of Hindu temple architecture ie in the temples of the northern plains or in the southern peninsula and the Vesara style or "Deccan style" of India. Hindu temples of these two regions have been classified as the Nagara or 'northern' style, the Dravidian or 'southern' style. While both the regions share a common origin in thatched huts and modest timber forms, as reflected in early bas-relief depictions and their actual rock-cut representations, further evolution of the structural shrine in each region charters an independent course. But even though the appearance of the temple differed the basic philosophy that guided their planning and layout was the same guided by manuals on architecture.

25 VAYU	26 NAGA	27 MUKHYA	28 BHALLATA	29 SAUMYA	30 MRGA	31 ADITI	32 UDITI	1 ISA
24 PAPAYAKSMA	RUDRAJAYA						MITRAJAYA	2 VATAPARJANYA
23 SOSA		RUDRA	PRTHIVIDHARA			APA-VATSA		3 JAYANTA
22 ASURA			BRAHMA			ARYAMAAN		4 MARUTA
21 VARUNA		MITRA						5 MAHENDRA
20 PUSPADANTA								6 SATYAKA
19 SUGRIVA		INDRA	VIVASVAT			SAVITRI		7 BHRISA
18 DALVARIKA	INDRAJAYA						SAVITRA	8 ANTARIKSA
17 NIRRTA	MRSA	15 BHRINGARAJA	14 GANDHARVA	13 YAMA	12 GRHAKSATA	11 VITATHA	10 PUSAN	9 AGNI

Hindu Temple and the Structure of Human Body: Comparison

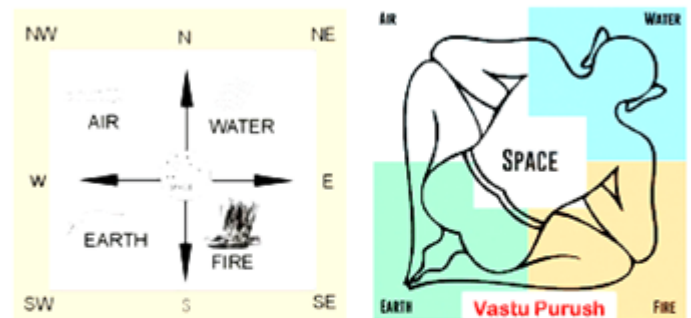


There are several ancient scriptures and books or manuals in Hinduism. Among these are the scriptures that have guided Hindus on techniques and structural rules of architecture. The technical treatises written in Sanskrit, which is an ancient language of India (the language of the Vedas), gives the basic rules in the field of architecture and sculpture are called as the Shilpa Shastras and Vastu Shastras. The Mayamata and Mansara is the other two well known treatise of South India on architecture and iconography respectively. The rules from these treatises were strictly followed for the construction of temples dating back from the 5th Century A.D and followed even today throughout the country in different temple forms and styles. The temple is a link between the physical world of man and divine world of God. And to connect them, the plan of cosmos were graphically copied in the foundation of the temples. Thus the typical plan of a Hindu temple is an illustration of sacred geometry where the temple is representation of the mandala. Here the sacred geometry means the science the accurate laying out the ground floor of the temple in relation to the astronomical movements and positions and the cardinal directions. The mandala is the sacred form consisting of the intersection of the circle and the square. Thus the Hindu architecture, religious or vernacular, according to the sects in the ancient times were based on the geometry of the Vastupurushamandala. The basic construction technique used in early Hindu temple was the trabeated system or the post and the beam method and which was extended by the use of corbelling techniques. This method was originally used

for wooden construction in India and was later adopted for the stone structures as well. The column-beam-corbel method of construction however became the main structural principle governing the construction of every Hindu temples. The principles of equilibrium of forces in action by means of arch, vaults and other forms of func

RELATION OF VASTUSHASHTRA AND 5 ELEMENTS

The directions, vastupurush and the 5 main elements co-relate each other. The temple complex built on the basis of these standards.



Bhoota	Associated Direction	Characteristics
Akash	West	Expansion, enhancement
Vayu	East, North-East	Movements, joy, happiness
Agni	South	Power, confidence, fame
Jal/Asas	North	Spirituality, ideas, thoughts, healing
Prithvi	Center, Diagonal	Stability, peace and harmony

On the basis of the above studies this dissertation concludes by the massive nature the stability of the temple structure depends mainly on the geometrical compatibility of the elements with respect to the load applied rather than material failure. A dimensional analysis therefore constitutes an important step in safety assessment of this kind of structures. The data concerning the main geometrical property of temple from the 'north' and 'south' of India here have been collected and elaborated through some specific though limited number of examples. In spite of the limited number of samples it is possible to find some interesting trend even though the absence of a statistical validity constitute a starting point for future works concerning the stability analysis of the temples."

Thus it can be seen that the elements in creation form the fundamental unit to the secret of the entire Universe and a deep understanding of the elements, its significance and its subtle effects is the key to leading an Ideal Life of Peace, Prosperity and Eternal Happiness. It is the science that guides the design and construction of buildings in harmony with the laws of nature and the universe. Both design concepts deal with the use of life force or "life energy" and the use of the five elements of nature

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