PRINCIPLES OF VAASTU SHASTRA AND ITS INFLUENCES IN BUILDING DESIGN

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Abstract— Vaastu Shastra is an ancient science that our ancestors followed during the construction of any type of structures, forts, palaces, temples or buildings. The principles laid by Vaastu scriptures are not something that came into existence in a day but by persistent researches and analysis of geometry, cosmic studies, solar energies, geographical interferences, the study of hemispheres etc. by our great sages or gurus (teachers). Vaastu is a holistic discipline of art, design and architecture. Vaastu is not limited to the planning and designing of the exterior of the building but is also concerned about the internal or interior of the structures or buildings. This paper aims to focus on the doctrine of Vaastu Shastra that influences the space planning and design for overall prosperity and abundance in the occupant's life.

Keywords— Vaastu Shastra, Interior Décor, Interior Designing, Architecture, Building Construction, Building Design, Civil Engineering, Built Environment

I. INTRODUCTION

Vaastu Shastra is a Sanskrit word and derived from the word "VAS" which means "a piece of land" and "TU" means "to reside" and "SHASTRA" means "science". Vaastu Shastra also means "the science of architecture" as architecture is that modern concept of calculations and geometry which deals with the development of land and building into a spatial and creative space. Vaastu Shastra lays down the ideologies of design, outline, dimensions, ground research, space arrangement and spatial geometry for any built-up structure, theories of Vaastu provide ideas and concepts for making a living space harmonious with nature without impacting the positive course of the environment. Vaastu has been rooted in Vedic philosophy around 4500 years ago or above. Vaastu practices are based around powerful cosmic energies and mathematical calculations. It is also based on observations and science and wisdom of Vedas. Vaastu Shastra encourages the flow of positive energy in our body, soul and mind. Vaastu is also interconnected with other Vedic sciences of wisdom like Jyotish Vigyan

(Astrology), Darshan (Philosophy), Yoga Asan and Unani & Ayurveda.

Vaastu is an ancient Vedic tradition that was implemented in the construction of any structure especially temples and other important buildings structure like the palaces, forts of ancient times in India. It works on a mathematical calculation concerning the orientation of the sun and wind flow directions to arrange the position of the structure. We can find the implementation of Vaastu Shastra in The Indus Valley Civilization as mentioned in our (Indian) ancient Sanskrit scriptures like Vishwakarma Prakash which is written thousands of years ago and the first evidence in writings of its kind and the community "Vishwakarma" looked after all these kind of art and design like building design, jewellery, amulets etc. It was extensively used before the British rule in India but in the past few years, it got lost and the English school of learning came into existence. Now again due to the wide-ranging works of some research scholars and common people's interest, it gained popularity not only in India but in foreign land too.

Vaastu Shastra is an ancient science of architecture. Vaastu which means a piece of land for habitat is also known as *"Sthapatya Veda"* an Upaveda of Atharvaveda (Ancient Sanskrit Hindu Scriptures).

According to **Michael W. Meister** (an arthistorian, archaeologist and architectural historian at the University of Pennsylvania)^[9], these writings found on the Indian subcontinent depict standards of a plan, design, estimations, ground planning, space course of action, and spatial math.

Vaastu Shastra is a very extensive and in-depth study. As it's written in Sanskrit, most difficult to understand its core meaning for many, some of the works are even translated into English and other languages for the people to appreciate. Here, the main objects and functions of Vaastu have been summarized below:

A. Focus of Vaastu Shastra

Vaastu mainly focuses on:



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- 1. Bhogadhyam (Utility).
- 2. Sukha Darsham (Aesthetics).
- 3. Ramya (Spirituality).
- B. Gunas of Vaastu Shastra

The Vaastu is divided into three main Gunas:

- 1. *Saatvika* (Light) Symbolic
- 2. *Taamasa* (Aggressive) () Symbolic
- 3. **Raajasa** (Energy to act) $\langle \rangle$ Symbolic

C. Divisions of Vaastu Shastra

The Vaastu is partitioned into three principles parts/bunches managing:

- 1. *Griha Vaastu* is for towns, villages and buildings.
- 2. Sayana Vaastu is for furniture, tools and utensils
- 3. Yaana Vaastu is for vehicles.

D. Basic Elements and Principles of Vaastu Shastra

All objects of this universe are made of five elements, such as Vaastu Shastra. Vaastu principles aim to establish harmony by using the five basic elements – earth, water, fire, air and space.

These five basic elements are as below:

- Earth or Soil (Mitti/Prithvi Tattva)
- Water (Jaal Tattva)
- Fire (Agni Tattva)
- Air (Vaayu Tattva)
- Space (Akash)

These are also called *"Panch Mahabhoot" or "Panch Mahabhoota"*.



Figure: Five Elements of Nature

Even in our Ayurveda, these five elements are the key elements and focus mainly on the factors of *Kapha*, *Vatta* and *Pitta* for healthy living (mind, body and soul).



Figure: Five Elements of Human Body

E. Vaastu Shastra & External Forces

We are living in an unsteady universe, which is persistently moving, for which it requires a parcel of energy. Each material in the universe transmits some energy at its explicit frequencies. Likewise, these powers and energies impacted on earth independently or by consolidating with each other.

Energies and powers impact on earth independently or by consolidating with one another shaping energy envelope and web of energy.

These energies are both visible, as well as invisible, which directly or indirectly affect our lives and Vastu, recognize them in a due manner.

These forces or energies are as below:



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- Celestial Energy
- Gravitational Energy
- Magnetic Energy
- Ultra-violet Energy
- Infrared Energy
- Subtle Energies
- F. Major Directions of Vaastu Shastra (10 Directions)

Vaastu directions are measured with the help of a sundial in ancient India. The use of compass came from the Chinese culture and was adopted quite quickly as it was easy to find. Though there is a marginal difference between the two (Sun-dial and Magnetic Compass) which is 12.3°.



Figure: Sun-Dial



Figure: Magnetic Compass

Major Directions:

- EAST Pūrva
- WEST-Paśchima
- NORTH Uttara

- SOUTH-Dakşīņa
- NORTHEAST-Īśānya
- NORTH-WEST Vāyavya
- SOUTHEAST-Āgneya
- SOUTH-WEST Nairrtya
- NADIR Adhah
- ZENITH Brahmasthan
- G. Vaastu Purush and Mandaala

The Vaastu Purusha Mandala is a critical piece of Vaastu Shastra and comprises the logical computations and illustrative reason for producing a plan. It is the powerful arrangement of a structure that joins the course of the wonderful bodies and extraordinary forces. Purusha alludes to energy, force, soul or cosmic. Mandala is the nonexclusive name for any arrangement or diagram which emblematically addresses the cosmos.

In Hindu cosmology, the surface of the earth is addressed as a square, the most key of all Hindu forms.

In the Mandala Square Grid, Lord Brahma (Creator of the Universe) involved the focal part - the Brahmasthana-and different divine beings were conveyed around in a concentric example. There are 45 divine beings (Devtas) or energies in all including 32 external gods and 13 internal gods.

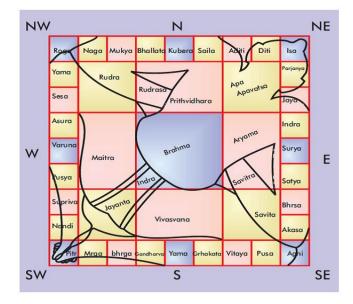
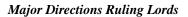


Figure: 45 Vastu Devtas Chart



- North- Kubera- Ruled by Lord of Wealth
- South- Yama- Ruled by Lord of Death
- East- Indra- Ruled by the Solar Deity
- West- Varuna- Ruled by Lord of Water
- Northeast {Eshanya} Ruled by Shiva
- Southeast- Agni- Ruled by the Fire Deity
- Northwest- Vayu- ruled by the God of Winds
- **Southwest** Pitru/Nairutya, Niruthi- Ruled by Ancestors
- **Center** Brahma- Ruled by the Creator of the Universe^[2]

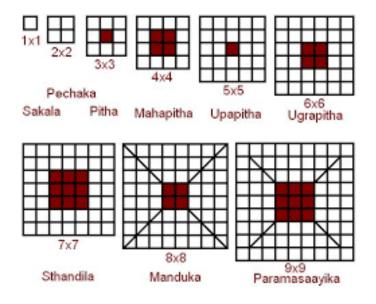
The mandala is put to use in site arranging and engineering through an interaction called the *Pada Vinyasa*. This is a strategy whereby any site can be partitioned into frameworks/modules or pada. Mandala has specific focuses known as Marma which is essential energy spots/focuses on which nothing ought to be built. They are dictated by certain corresponding connections of the squares and the diagonals.

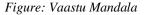
The types of mandalas with the corresponding names of sites is given below:

- 1. Sakala (1 square) relates to Eka-pada
- 2. Pechaka (4 squares) relates to Dwi-pada
- 3. Pitha (9 squares) relates to Tri-pada
- 4. Mahaapitha (16 squares) relates to Chatush-pada
- 5. Upapitha (25 squares) relates to Pancha-pada
- 6. Ugrapitha (36 squares) relates to Shashtha-pada
- 7. Sthandila (49 squares) relates to Sapta-pada

8. Manduka/Chandita (64 square) relates to Ashtapada

- 9. Paramasaayika (81 squares) relates to Nava-pada
- 10. Aasana (100 squares) relates to Dasa-pada





H. PRINCIPLES OF VAASTU FOR SITE SELECTION

When a piece of land is enclosed within a boundary it began to behave like a scaled model of the universe.

Below are the steps to be followed for any site selection for building any structure:

- 1. History of the plot or site
- 2. The Outline/Shape of the plot
- 3. The Slope of the plot
- 4. Astrological Calculations of the Purchaser
- 5. Facing of the Plot
- 6. The quality of Soil and its contents
- 7. Topography and other surroundings such as buildings and other barriers in and around the plot

The interaction of Vaastu begins with plot choice. The cautious determination of a plot is vital since the plot addresses a fixed structure that will emanate positive just as negative energies. This will rely upon the components expressed previously.

I. RELATION OF VAASTU SHASTRA AND INTERIOR DÉCOR



There is an imperceptible and persistent relationship between the elements and energies outside and the people residing in a house. Vaastu Shastra norms are not only significant for the construction of the building or any structure and direction of various rooms in a house but also for the interior décor and design of a completed house. Many people consider that Vaastu Shastra only concerns the design and construction aspects of the property i.e. the exterior of a building. However, the veracity is that it is as much applicable to the interior décor of homes. Even if the home is constructed as per Vaastu norms, but have ignored Vaastu for interiors, then, it could create an imbalance in the overall Vaastu of that property. It is assumed that the arrangement of the interiors, will have an influence on the individuals living in the space, based on the arrangements and planning of the décor, furniture and other aspects, positive and negative energies are developed, affecting the inhabitants.



Figure: Interior Design and Décor

In modern days, due to urbanization, the Vedic or traditional principles of Vaastu is impossible to be followed and implemented in the habitat places where there is a rise of flats and apartments mostly and finding a proper Vaastu compliance plot is also challenging. Then Modern Vaastu mainly inspired by the Chinese methodology of Feng-shui came into existence which works differently from Traditional Vaastu and is impeccable for today's era. Modern Vaastu believes in remedy without demolition of any structure. It works mainly in 16 main directions, each direction is 22.50° and 32 entrances (Dwars), each division is 11.25° as found in the angular division(360°) and focuses on the attributes of the zones which is no doubt derived from the attributes of 45 Devtas from the Vastu Mandala Devta Chart to achieve the best possible result from the directions with the help of gadgets or remedies such as

crystals, studs, metal strips, colours and so on, if any construction or any placement of objects is arranged so, that is not appropriated as per Vaastu principles. Each zone has its attributes and arranging or the planning of rooms or objects accordingly will advantage to get maximum positivity. Based on the angular Vaastu Chakra the interior planning such as right positioning of a bedroom, stair-case, Pooja room, kitchen, toilet, study room and so on is done by Vaastu experts in today's times.

Colours have a huge psychosomatic impact on individuals. A house is where an individual spends a significant part of his life. As explicit tones invigorate unmistakable sensations in people, it is essential to have a fitting equilibrium of tones in one's home and life, to feel new and carry on with a solid and healthy life.

By choosing the right colour schemes for the right zones, occupants can bring happiness and prosperity to their homes. Balancing a zone with the help of colours also acts as a remedial measure of Vaastu Shastra.

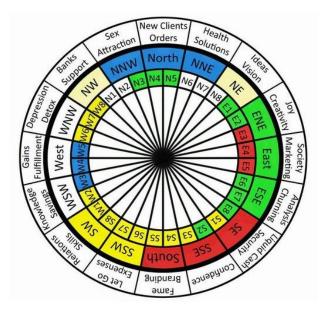


Figure: Angular Vaastu Chakra (360°) – 16 Directions Attributes

a) CASE STUDY 1 (PLANTATION)

Large trees should not be planted on the East and North-East side of the plot, since they keep the morning sun-rays from getting into the house which is good for our immunity, as we all know the body produces **vitamin D** in response to sun exposure. **Vitamin D** has a range of benefits. Plants and trees are planted on the South, South-west; west side on the grounds, so that, the late afternoon sun rays



at a low height point, trees gives their best presentation in these zones.

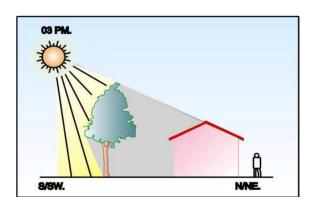


Figure: Plant Orientation as per Sun Direction

b) CASE STUDY 2 (SLEEPING POSITION)

The establishment guideline of Vaastu Shastra is on the solar radiation and earth's magnetic field among north and south poles of earth that influences bio-life forms. The human body, itself act as a magnet with the head, the heaviest and significant part of the body as North. While sleeping if one head is coordinated towards the north, the N-pole of earth then the human body repulse each other affecting blood course in the brain resulting in nerve problems or brain disorders, headaches etc.

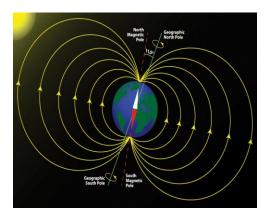


Figure: Earth Magnetic Field

VI. ARCHITECTURE AND BUILDING ENGINEERING -VAASTU SHASTRA

Among Architecture and other building designers such as Civil Engineers, interior designers or decorators etc., the concept of Vaastu Shastra has been an impassioned debate about the applicability or triviality of Vaastu Shastra to the structure plans of today. Despite what is generally expected, there are amazing Architects like **Charles Correa** and **Geoffrey Bawa** have broadly utilized Vaastu Shastra in some of their projects openly in public designs. But most of the contemporary Architects and Engineers reacts to the reports and charts of Vaastu Consultant, heatedly disagree with the validity of Vaastu completely claiming to ruin their design for 'Vaastu-compliance', though both Vaastu and building designer focus on utility, aesthetics and spirituality or we can say as mental peace.

V. VAASTU SHASTRA IS NOT THE SAME FOR EVERY REGION

Vaastu Shastra is section-specific, that is, there is a dissimilar Vaastu vibration for every single place. In the northern hemisphere like India, the magnetic north pole of the earth is more close than the southern hemisphere countries like Australia, Brazil etc. for which a person sleeping with their head pointing south in India is more relaxed than pointing towards north while the case is just opposite for southern hemisphere countries. So, the norms followed as per Vaastu works contrarily in both the regions of the world. Moreover, it is also noticed and analyzed by Vaastu researchers that Vaastu is not the same for every individual except in the case of general Vaastu principles.

VI. CONCLUSION

Vaastu principles are not mythological as believed by many modern generation societies. It is the principles derived by our great sages after various researches and most scientifically and logically analyzed. We can find the relevance of Vaastu and environment and interior psychology in the modern-day which are facilitating contemporary architecture and interiors of any building design in a harmonious and positive nature.

It is also found in many advanced types of research in the field of Astrology, that every dwelling place energies are also related to the horoscope or date of birth of the person residing there. So, it is believed that when checked together i.e. Vaastu and Horoscope or Date of Birth which is also known to be Astro-Vaastu or Numero-Vaastu then the result achieved is more accurate and appropriate, which is also known as *Customized Vaastu*.

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