

Application of Vastu in Construction

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Abstract- Vastu science is applicable to solve the building problems with planetary position and ten directions. Different planets have different directions and have specific effect on the building and persons. Vastu deals the equilibrium balance between the structures. Vastu concept can be applied in construction engineering. It is not only a religious symbol but a scientific solution also. For simple understanding it is applied and related to religion in the form of temple, forts, town planning astrology and old civilization. The architecture of India is rooted in its history, culture and religion. Indian architecture progressed with time and assimilated the many influences that came as a result of India's global discourse with other regions of the world throughout its millennia-old past. The architectural methods practiced in India are a result of examination and implementation of its established building traditions and outside cultural interactions. Though old, this Eastern tradition has also incorporated modern values as India became a modern nation state. The economic reforms of 1991 further bolstered the urban architecture of India as the country became more integrated with the world's economy. Traditional Vastu Shastra remains influential in India's architecture during the contemporary era. Effort has been made to discuss how to incorporate vastu law in present constructions.

Keywords: Vastu, Astrology, Civilization, Green Building, Radiations, Materials, Architecture.

I. INTRODUCTION

Vaastu Shastra unifies the science, art, astronomy and astrology, it can also be said as an ancient mystic science for designing and building. Vaastu Shastra helps us to make our lives better and will secure from things going wrong.

Vaastu is the science of directions that combines all the five elements of nature and balances them with the man and the material. Vaastu Shastra is creating a congenial settings or a place to live or work, in most scientific way taking advantages of the benefits bestowed by the five elements called "Paanchbhootas" of the nature thereby paving the way for enhanced health, wealth, prosperity and happiness in an enlightened environment. Our sages and seers have knew the secrets of using all the five elements of this universe and their special characteristics and influences such as the magnetic field, gravitational effect etc. of Earth, the galaxy in the sky, the directions and velocity of the winds, light and heat of the SUN including the effects of its Ultra-Violet and Infra-Red rays, the volume and intensity of rainfall etc. for the advantage of the mankind in suitably planning constructing buildings for dwelling, prayer, entertainment, education, working, production and other purposes.

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They evolved scientific methods and systems and confined them over the years as 'VAASTUSHASTRA'.

II. REVIEW OF LITERATURE

The architecture of India is rooted in its history, culture and religion. Indian architecture progressed with time and assimilated the many influences that came as a result of India's global discourse with other regions of the world throughout its millennia-old past. The architectural methods practiced in India are a result of examination and implementation of its established building traditions and outside cultural interactions. Though old, this Eastern tradition has also incorporated modern values as India became a modern nation state. The economic reforms of 1991 further bolstered the urban architecture of India as the country became more integrated with the world's economy. Traditional *Vastu Shastra* remains influential in India's architecture during the contemporary era. Harrapa civilization in indus valley civilization (2700 bc-1700bc), Buddh sputas in post maha janapadas period (1500 bc—200 ad), Vijayanagara architecture of the period (1336 – 1565 ad) in late middle ages (1100 ad—1526 ad), Mughal tombs of sandstone and marble show persian influence in islamic influence in mughal era (1526 ad-1857 ad), architectures in British rule & Swami Vivekananda Yoga research foundation (vyoma) Bangalore, India has followed science which is based on vastu in general

III. MATERIAL AND METHODS

Though vastu has got its logic on astrology but its relevant and it fulfils all the Concepts of modern day advanced engineering. The following principals are adopted:

- Similarly Vastu prefers sites sloping towards north since sites sloping towards north receive much less solar radiation as compared to sites sloping towards south.
- Vastu advised main openings towards northeast since in tropical climate rain blows from southwest to openings towards northeast is favorable since it won't be receiving direct rain
- Also vastu advises to sit facing north or east because maximum glare during the day comes from south and west which effects eye site and health.
- For living areas north and east are recommended from point of view of coolness and comfort while bedrooms which are used during the night time rather than during hot daytime are recommended in south and west.
- Align the entire house in the south west zone with maximum side margin to the north and the east. This ensures loading of south and southwest zones of a plot.
- Provide underground water tank or boring well in the north and northeast zone to achieve reduction in matter and loading in geo magnetically stable and balanced north east zone. Thus the capacity of north east zone to

act as the source of all positive energies is substantially increased.

- More terrace areas should be located in the north, northeast and east zones. Roof slopes and ground slopes should be from the Southern and Western zones towards the Northern and Eastern zones.
- To maintain the original balanced state of energy fields, no trees should be planted in the North, Northeast, and East zones.
- With the starting point as the Northeast corner, more floors should be added towards the Southeast should be the lowest point and the Southwest the highest.
- The basic plinth level should be increasing towards the southeast, south, and Southwest and should gradually be reduced towards the West, Northwest, and the North.
- During sunrise time due to inclination of earth at an angle of nearly 23.5 degree from its vertical axis, solar rays span between geographical northeast to geographical east.
- East is a light direction heavy and large articles should be avoided in this zone, it is a light zone with availability of cold colours,
- In Vedic astrology, sun, in the horoscope of Time personified, is the lord of fifth house (Leo sign) and gets exalted in the first house (Aries sign). First house corresponds with east and governs human head and brain. Being fifth lord, sun also rules heart, mental activities, male children (sun is male planet), sum total of past karmas or karmic balance (sun is signification of soul) and love affairs (sun rules functioning of heart). Sun also rules eyes, hairs, bones, stomach (the navel) and is the source of great cosmic heat.
- Eastern concepts of building constructions are closely related to nature and natural energies.
- Vastu science is directed towards forming cosmic envelope, which is devoid of any negative energy field so that a vastu is bestowed with peace.
- Enhancement of positive energies and subtractions of negative energies in vastu shastra provide environmental enrichment.
- Conventionally the north is source and the south is sink for electromagnetic flux lines, subatomic particles travelling along geomagnetic flux lines end up at the southern tip.
- The east, west asymmetry effect in nuclear physics acknowledge the fact that excessive cosmic radiation particles particularly positively charge particles, enter the earth's atmosphere from the west rather than the east.

IV. RESULT AND DISCUSSION

Factors governing vastu – describing the sun path and its affects are as under :

- Vastu depends on the principles also a solar science because the distance btw nth sun & earth keep changing during the rotation of the earth.
- Sun is closest during summer and farthest during winters, the distance of sun & every point of earth keeps changing.
- Depending upon the distance any one can say if the sun emitting positive rays ,- or negative rays.

- Morning rays carry vitamins and considered positive rays.
- Afternoon rays are considered negative or harmful presence of ultraviolet rays.
 - These principles can be considered while designing or construction.
 - It would be really nice that if your house run a shade of tree in summer afternoons.
 - A house should be designed in such a way that windows and all sources of ventilation absorbed as many positive rays as possible. And the walls protect u from the harmful rays.
 - In north India the best direction is north east because the sun is farthest to the Indian sub continent and it is closest when it is in south or west.

Planning of a east facing plot

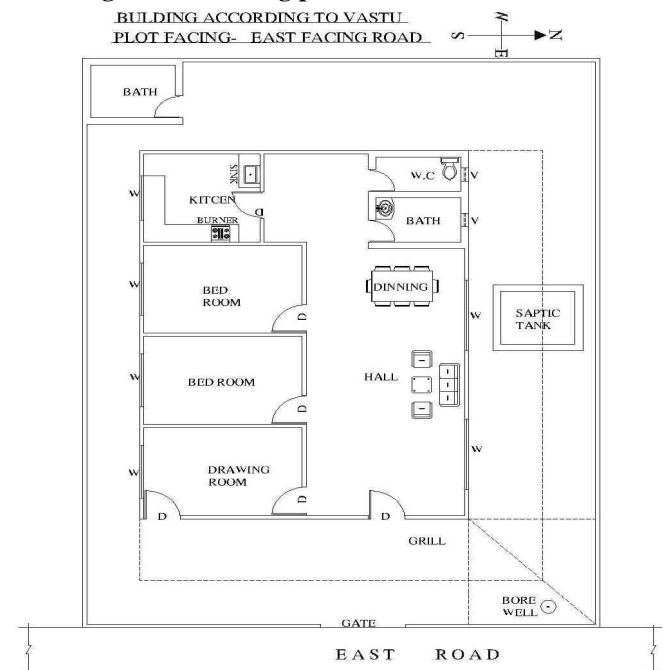


Fig: 1 planning of an east facing plot

Planning of a west facing plot

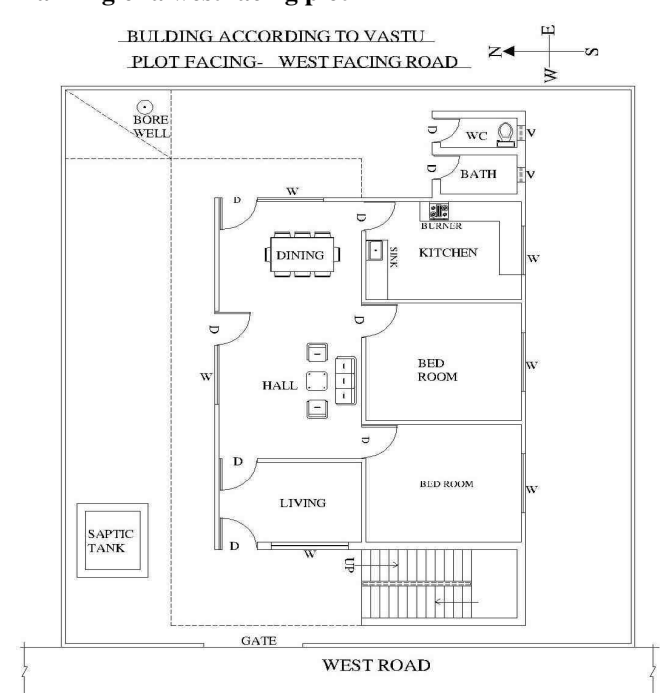


Fig: 2 planning of a west facing plot

Summary and Conclusions

The following are the summary and conclusions:

- The Indus Valley Civilization (IVC) was a Bronze Age civilization (2700–1700 BC; mature period 2600–1900 BC) that was located in the northwestern region of the Indian subcontinent, consisting of what is now mainly modern-day Pakistan and northwest India. The Buddhist stupa, a dome shaped monument, was used in India as a commemorative monument associated with storing sacred relics. The stupa architecture was adopted in Southeast and East Asia, where it became prominent as a Buddhist monument used for enshrining sacred relics
- Religion, religious practices and traditions. The participation and apparent effect of the five elements in human dimension. The eight directions. The geomagnetic and other fields. Frequency spectrum of sound waves and light waves and the interrelationship. Human mind as influenced by traditional values and beliefs. The ancient charts, diagram and their interpretation.
- Jaipur is considered by many Urban Designer to be one of the best planned city according to vastu. The town of Jaipur is built in the form of an eight-part “**Mandala**” known as the “**Pithapada**”. Jaipur city is remarkable among pre-modern Indian cities for the width and regularity of its streets which are laid out into six sectors separated by broad streets of 111 ft. 111 is a holy number in Hinduism and hence considered lucky also. The commercial shops were designed in Jaipur in the multiples of nine. “**Nine**” signifies the nine planets of the ancient astrological zodiac, and twenty-seven signifies the **27 nakshatras**.

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