

# Scientific Approach of Vastu Shastra

RadhikaMane<sup>1</sup>, SakshiKoli<sup>2</sup>, Asmita Chavan<sup>3</sup>, PritiVathare<sup>4</sup>, Mr. A. B. Jadhav<sup>5</sup>  
*Sharad Institute of Technology College of Engineering, Yadrav.*

**ABSTRACT:** Vastu Shastra is an ancient Indian system of architecture and design that emphasizes the balance and harmony of the natural and built environment. The principles of Vastu Shastra have been used for centuries in traditional Indian architecture, but in recent years, there has been increasing interest in incorporating these principles into modern architecture. This paper will explore the intersection of Vastu Shastra and modern architecture, examining the potential benefits and challenges of integrating these principles into contemporary design. **Keywords:** Vastu-shastra, Architecture, contemporary design.

## INTRODUCTION

Vastu-shastra is a vast and ancient science of living. The word Vastu is derived from the root 'Vas' which means 'to reside'. Vastu means dwelling of Humans and Gods in the original Sanskrit literature. Many factors govern the life of a human being his fate, Karma and surroundings. The origin of Vaastu shastra may have taken place well over thousands of years ago. The learned men of those days may not have lived in houses themselves but they most definitely dedicated their lives to the development of the science "Vaastu shastra" or "Vaastu", as it is popularly known today. The principles of the science laid down during those days were based purely on the effect of sunrays during different times of the day. The observations and corrections made were noted and concluded only after in-depth screening of the situation. Vastu is a part of Vedas, which are believed to be four to five thousand years old. Through penance and meditation yogis of that period acquired answers believed to have come from the cosmic mind itself to their questions. Hence Vedas are heeded with divine knowledge. The art of Vastu originates in the Stapatya Veda, a part of the Atharva Veda. The principles of construction, architecture, sculpture etc., as enunciated in the epics and treatise on temple. Vaastu Shastra as a science is applicable to all types of buildings irrespective of their functions, size, scale, and type. Vaastu principles are applicable at the design stage of spaces and areas. It is based on the belief that the physical environment has a direct impact on the health, well-being, and prosperity of the inhabitants. The principles of Vastu Shastra have been used for centuries in traditional

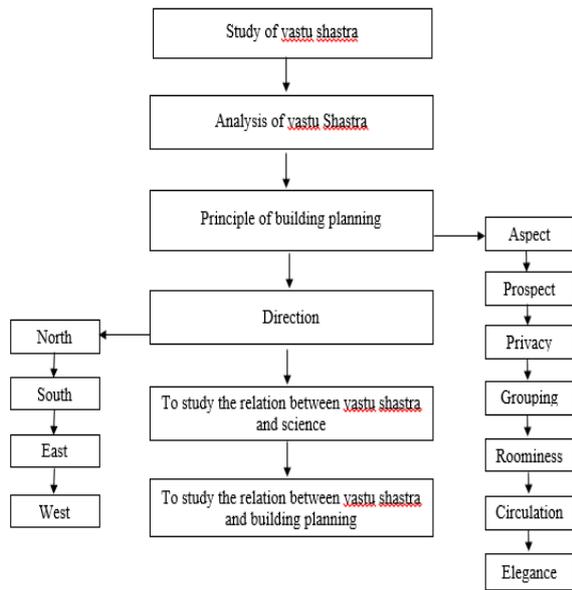
Indian architecture, but in recent years, there has been increasing interest in incorporating these principles into modern architecture

The incorporation of Vastu Shastra principles into modern architecture can bring several benefits. One of the main benefits is the emphasis on natural elements such as light, air, and water, which can lead to healthier and more energy-efficient buildings. Vastu Shastra also promotes using sustainable materials and construction methods, which can help reduce the environmental impact of buildings. Additionally, the principles of Vastu Shastra can enhance the overall aesthetic and functionality of a building, creating a more harmonious and pleasing environment for the inhabitant. When designing a space according to Vastu Shastra, you want to make sure the space is in balance with the natural environment.

You also want to make sure each side of the space is aligned with the positive energy from each of the directions. Make sure the entrance is not facing north because this direction creates negative energy. You also want to make sure the space is not against a wall. These two, elements create negative energy in a space. By keeping these elements in mind while designing your space, you will be able to create a design that is in harmony with the natural environment and the flow of positive energy. The use of Vastu principles in modern architecture is intended to create a sense of balance and harmony within the built environment, which can lead to improved physical, mental and spiritual well-being for the people who inhabit the space. However, it's important to note that Vastu is not a universally accepted scientific principle, and many architects and builders do not take Vastu into account when designing buildings. Additionally, in the modern context many modern architects and builders use Vastu as a guide to design buildings but also use their understanding and design principles. - When designing a space according to Vastu Shastra, you want to make sure the space is in balance with the natural environment. You also want to make sure each side of the space is aligned with the positive energy from each of the directions flow of positive energy.

METHODOLOGY

Fig No.1



OBJECTIVES

- 1) To study the relation between vastu shastra and science.
- 2) To study the nature and vastu shastra.

• INTRODUCTION OF VEDAS

Vedas are holy books. They give knowledge of Vedas were given by Lord Bramha.

➤ There are four Vedas:-

- Rigveda -Ayurveda

It is established in 4000 B.C. It includes many Mantras of various Gods. The writing language is Sanskrit. The Main Sages of this veda is gasty, Goutam, Kashyap and Angiras.

The main gods are Agni, Indra, Rudra, Varuna and Vayu. This include ayurveda Which is written by Dhanvatari. It has knowledge of Surgery and Medicines Rgveda is the oldest religious book of the Aryans. It picturises the early lives of the Aryans. We get mention of various diseases in this Veda. The both in health and diseases had caught attention of the Vedic sages. Skin was not merely an organ of attraction and look but its colour was important socially.

- Yajurveda- Dhanurveda

It includes yagya mantras. Writing language is in Sanskrit.

Main Sages are Vashishta, Atri, Vishwamitra, Jamadagni, Dalavya, Yadnyavalkya. Main Gods are Savita, Varuna, Vayu, Agni, Chandra. Upaveda is Dhaurveda Which is written by Sage Brigu. It has knowledge of Army, it's training and rules The hymns of the Yajurveda number one thousand nine hundred and ninety-nine and are part of a larger body of Vedic literature A ritual Veda that serves as a guide for the Adhvaryu priest, who performs many of the rituals in a sacrifice. The Yajurveda is a Sanskrit word that combines yajus (religious reverence, worship, sacrifice, or a sacrificial prayer) and Veda (knowledge). The Yajurveda contains mantras and formulas that are spoken during sacrificial fire rituals.

- Saamveda- Gandharvaveda

It includes yagya mantras. Writing language is in Sanskrit. Main Sages are Vashishta, Atri, Vishwamitra, Jamadagni, Dalavya, Yadnyavalkya. Main Gods are Savita, Varuna, Vayu, Agni, Chandra. Upaveda is Dhaurveda Which is written by Sage Brigu. It has knowledge of Army, it's training and rules. The Samaveda is the Veda of melodies and chants. It is an ancient Vedic Sanskrit text, and is one of the sacred scriptures in Hinduism. One of the four Vedas, it is a liturgical text which consists of 1,875 verses. All but 75 verses have been taken from the Rigveda. Three recensions of the Samaveda have survived, and variant manuscripts of the Veda have been found in various parts of India.

- Atharvaveda- Sthaptyaveda

It is establishment in 500 B.C. to 50 B.C. Writing language is in Sanskrit. The Upaveda are Stapatyaveda. Buddha Period is 250 B.C. to 750 A.D. Hindu Period is 500 A.D. to 1500 A.D. Islamic Period is 1200 A.D. to 1700A.D. It includes rule, regulations of society and life. The Atharvaveda is a collection of 20 books, with a total of 730 hymns of about 6,000 stanzas. The text is, state Patrick Olivelle and other scholars, a historical collection of beliefs and rituals addressing practical issues of daily life of the Vedic society, and it is not a liturgical Yajurveda-style collection. A Vedic text that includes verses with mystic cosmogony that can be used as a paradigm for cosmic planning. The Atharvaveda is also said to represent a "popular religion" that includes formulas for magic, daily rituals, and royal rituals. Vastu Shastra is considered to be part of the applied knowledge.

- VASTU SHSTRA IN PURAN ( DICTIONRY)

- 1) Skandha Purana

These have Two chapter on Vastu. It includes with information and they are Town planning and management. Design of Chariot (Ratha) and it's type also include in this also design of Mandap.

- 2) Garud Purana.

It includes development of garden and Holy places, And for fort construction, Town development.

- 3) Agni Purana

It include sixteen chapter on Vastu. Town planning and management, this is for Planning of residential Building, Murti shilpa and it's measurement rules.

- 4) Narad Purana

One chapter on well construction and temple construction.

- 5) Other

Ling Purana, Vayu Purana, Bramhand Purana and Bhavishya Puran.

All above puranas gives us information fo Construction of temples, Dhyam mandir and residential building.

- INTRODUCTION OF 5 ELEMENTS IN VASTU SHSTRA

All objects of this universe are made of five elements basically. These five basic elements are

(1) Earth or Soil, (2) Water, (3) Fire, (4) Air, (5) Space.

The five elements have close relationship with man and his environment. Nature has given them their proper place according to merit. If we give proper place to these elements at proper places in our building we become one with Nature. Actually nature is the God. One can experience the entrnal truth of nature on every step. The whole nature is overpowered with magnetic environment. Since the whole universe is a composition of five basic elements: Fire, Air, Space, Earth and Water. The Elements in the Human Body are closely related to the 5 elements of nature. All of the creation is made up of the five elements in different proportions. The Human body is also the product of these 5 elements in different proportions. 72% water, 12% earth, 6% air, 4% fire and the rest is Ether. Usually, the percentages

of the first four elements remain constant but the percentage of Ether can be enhanced. Each element is responsible for different structures in the body. Earth forms solid structures such as teeth, nails, bones, muscles, skin, tissues, and hair. These give structure and strength to the body. Water forms saliva, urine, semen, blood, and sweat. Fire forms hunger, thirst, sleep, the vision in the eyes and complexion of the skin. Air is responsible for all movement including expansion, contraction, vibration, and suppression. Space is the most subtle of all elements and is present in the hollow cavities of the body in the form of radio frequencies, light radiation, cosmic rays, etc.

- SHAPE OF LANDS

Plot selection as per vastu shastra is significant because the size or shape of a plot, its position or direction, the land's slope, and the soil's nature will radiate positive and hostile forces. If you buy or lease a plot to construct a building, office, factory, etc. You should take special care of vastu for a plot. It is challenging to get the vastu complaint plot because the amount of vacant land is decreasing daily. Today plot is too costly and tough to purchase. Many times people are forced to buy the wrong plot as per vastu. So never make this kind of mistake and choose the plot according to the rules of vastu Shastra. In Indian vastu shastra, many tips are given on plot selection. In this article, We describe all about the information on plot vastu. I will discuss step by step how to check vastu of land. Read the complete article carefully.

In ancient vastu text, many shapes and conditions are given for land area selection. As per vastu shastra, rectangular (if length breadth ratio 1: 2 and all corner angle 90 degrees), square, and circular (When construction also being circular) are considered auspicious, whereas some irregular shapes are inauspicious. Square and rectangular shapes are promising for all types of construction. Today many people face huge problems at the time of plot purchase. Someone is facing financial difficulties, and somebody is facing ascendants. Every plot has its energy level. A vastu consultant analyses accurately to find the defect of that plot. People should consult a vastu consultant before purchasing any land. Vastu shastra divides each space into eight directions, four cardinal and four ordinal directions. Each of these zones represents a specific element in our lives. Hence it is imperative to choose a plot with all these zones intact.

- EFFECT OF NATURAL CEREMONY ON LAND

EFFECT OF NATURAL CEREMONY ON LAND

A. CASTE WISE TYPES OF LAND:-

i. Bramhani :

It is Whitish in colour. Best for residential building because it have best self-bearing capacity is high and including with less porosity. This type of soil Sweetish in taste. Good for construction of temple, schools and sculptural hall. Brahmani soil is a type of sandy soil commonly found in the Brahmani River valley in Odisha, India. It is known for its fertility and is suitable for growing a variety of crops such as paddy, sugarcane, and pulses. Brahmani soil is a type of white, which is a category of soils characterized by a mix of clay and sand.

ii. Kshatriya :-

It is Reddish in colour and good for health,. This type of soils are Tart in taste. Good for construction of political buildings, defense building and leader's buildings, this type of soil is also cohesive and good self-bearing capacity. The soil should be able to support the weight of the building and any loads it will carry. Stability is the soil should not be prone to settlement, collapse, or erosion. Water content: The soil should have a suitable water content, as excessive water can lead to instability and waterlogging. Compaction: The soil should be compactable to create a stable base for the foundation.

iii. Vaishya :-

It is Greenish or yellowish in color. This type of soils are Sour in taste. Used for commercial buildings, it is cohesion less and also porosity is high. Vaishya soil is typically characterized as Moderate in texture (neither too fine nor too coarse) also Well-drained and Moderate in fertility. Having a moderate water-holding capacity. Building foundations, as it has a moderate bearing capacity. Constructing buildings with moderate loads using as a base material for roads and pavements.

iv. Shudra :-

It is Blackish in color. This type of soil Bitter in taste. Useful for Cemetery, Hospital. It have less self-bearing capacity and it may high shrinkage because high effect of water consumption. Composition of Shudra soil is a type of clayey soil, typically consisting of a mixture of clay, silt, and sand. Texture of this It's known for its smooth, plastic texture when moist, and

it becomes hard and brittle when dry. Strength of the soil Shudra soil has moderate to high compressive strength, making it suitable for supporting heavy loads. Water absorption it has moderate water absorption properties, which can affect its strength and stability.

B. PRODUCTIVE CAPACITY WISE TYPE OF LAND :-

i. Sarvashrestha Bhoomi

It include trees like Ashoka, Shami, Champa, Arjun, Tulasi, Coconut tree etc. are already available at Land.

ii. Shreshta Bhoomi

This is useful for agriculture purpose.

iii. Samanya Bhoomi

This land having Thorny trees

iv. Nikrushta Bhoomi

This type of soil is sandy soil or muddy soil.

C. SLOPE WISE

i. Kurma prushta

The shape of this slope is same as like a tortoise back. It is good for residential.

ii. Gaj prushta

The N-W and S-W side should be heightened. It provides as a long life for the owner of land.

iii. Daitya prushta

It include all eastern side is heightened than western sides. Also it gives badly affected on economic condition.

iv. Nagprushta

Towards eastern and western side long in length and towards Northern and southern side higher level and in middle lower level. Affected on mental condition. Threat death and enemy.

v. Govithi

At western side high and towards eastern side slope. Highly good luck for owner.

- SURFACE LAYER WISE

1) Hard Layer

It is just like a basalt rock. It is best for construction

2) Normal layer

It is moderate land and found is near to riverside or also Lakeside Adorable for construction.

3) Sandy layer

It is not good for construction.

4) Nature wise

i Balish iv. Khanmati

ii Bhogya v. Atmadharini

iii Kanta vi. Dravyamati

- DIRECTIONS

There are 8 Directions:

1) Main direction

- East (Purva)
- West (Paschim)
- South (Dakshin)
- North (Uttar)

2) Sub direction

- South-East (Aagnaya)
- South-West (Nairuktaya)
- North-West (Vayavaya)
- North-East (Ishan)

This is the placement of universal elements in relation to the four principal directions :

The balance of these elements is said to determine the condition of the associated structure. Understanding and balancing these elements in our surroundings can bring harmony and positivity into our lives. As per Vastu, the cardinal elements are like five angels of peace and prosperity, ready to serve us always. These elements – earth, water, fire, air, and space – hold great significance in creating harmonious living spaces. Earth represents stability and grounding, providing a solid foundation for growth and abundance. Water symbolizes flow and purification, bringing freshness and renewal into our lives. Fire embodies passion and transformation, igniting creativity and vitality. Air signifies movement and communication, facilitating the exchange of thoughts and ideas. Space represents expansion and openness, allowing for growth and exploration. When these elements are balanced within our surroundings, they create a positive energy flow that works in our favor. It is important to harmonize these energies in our homes and workplaces to promote well-being and success.

- SCIENCE OF ENERGY AND MATTER

The essence of Vastu Shastra revolves around the understanding of the relationship between energy and matter. According to principles in quantum physics, mass and energy can be transformed into one another, highlighting their interchangeable nature. Einstein represented this with the equation:  $E=mc^2$ . This simply means that every particle in this universe carries some sort of energy within it, which can be either positive or negative. As per the first law of thermodynamics and law of conservation of energy, energy can only change forms; it cannot be generated or destroyed.

Hence, the total amount of energy in the universe is constant. When we create any structure or building, we enclose these particles within a space. Hence, the energy of that space depends on the net energy generated by the interaction of these enclosed particles. Similarly, Vastu philosophy suggests the existence of two opposing forces, one subtle and refined, the other dark and dense, which can be categorized as positive and negative respectively.

These forces interact to release vital and natural energy, known as Pranic and Jaivik Urja, across the Earth's surface. "Pranic" energy signifies the life force that animates living organisms, often linked with breath or vitality.

- SOLAR ENERGY

The Sun plays a vital role as the primary energy source for all life on Earth and serves as the foundation for various other forms of energy. Solar energy and Vastu Shastra are closely linked due to their shared emphasis on utilizing natural energies to enhance human wellbeing and promote harmony. Solar energy, originating from the Sun's natural light and heat, represents a sustainable and renewable power source. Direct sunlight serves as the predominant energy source in residential, commercial, and industrial settings, as well as for human health. In Vastu Shastra, the Sun holds immense significance as a source of positive energy and vitality.

The orientation of buildings in Vastu Shastra often considers the path of the Sun, with the placement of windows and openings strategically designed to maximize sunlight exposure. This not only promotes natural lighting but also ensures the influx of positive solar energy into living spaces. Additionally, the positioning of rooms and architectural elements according to Vastu principles aims to optimize the

utilization of solar energy for various purposes, including heating and illumination. Morning sunlight is advantageous because of its higher Concentration of UVA and UVB rays compared to sunlight at other times of the day. These rays, especially UVB, play a key role in triggering vitamin D synthesis in the skin, crucial for bone health, immune system function, and overall wellness. Water is linked to purification and vitality, and having water bodies in these directions is believed to boost the circulation of positive energy and support health and wellness.

- Principles of planning

- |                             |                 |
|-----------------------------|-----------------|
| 1) Aspect and orientation   | 10) Flexibility |
| 2) Prospect                 | 11) Elegance    |
| 3) Privacy                  | 12) Economy     |
| 4) Furniture requirements   |                 |
| 5) Roominess                |                 |
| 6) Grouping                 |                 |
| 7) Circulation              |                 |
| 8) Practical considerations |                 |
| 9) Sanitation               |                 |

- Aspect : -

- Refers to the direction in which a room or building faces.
- Determines the type of energy that enters the space.
- Different aspects are associated with different energies, colors, and properties.

- Orientation:

- Refers to the positioning of a room or building in relation to the cardinal directions (north, south, east, west).
- Affects the flow of energy and the overall energy pattern of the space.
- Proper orientation is crucial to balance and harmonize the energy in a space.

### 1) MASTER BEDROOM

As per Vastu Shastra, the positioning of your bedroom can have a significant impact on your sleep. It considers the alignment of the bedroom, placement of beds and sleeping directions as crucial factors in creating an environment conducive to a peaceful sleeping experience. With this blog, explore how simple adjustments as per Vastu Shastra for bedroom location and sleeping orientations can promote a more rejuvenating sleeping experience in your everyday life. Location of master bed room is at South West corner it is also recommended that one may sleep on

one's bed putting the head towards the South and look towards the North. The presiding deity is Kubera, the Lord of Wealth. So it goes without saying that one is worshipping Kubera by living on bed facing north. The southwest corner represents the Earth element, which denotes stability and immobility. This direction is believed to help the head of the family be stable in life and make the best decisions.

The direction in which one sleeps also impacts sleep quality and well-being. For example, a north-side bedroom with the head towards the east or south encourages better sleep. Sleeping Directions as Per Vastu Shastra

- West side:
- South side:
- East side:

### 2) ACHILDREN BEDROOM

The study room should be located in the East or North direction of the building. These directions are considered auspicious for learning and intellectual pursuits. East direction is associated with the planet Sun, which represents knowledge, wisdom, and enlightenment.

North direction is associated with the planet Mercury, which represents communication, intellect, and education.

Place the study table in a way that you face East or North while studying. Keep the study room clutter-free and organized. Use calming colors on the walls, such as white, light blue, or pale green. Avoid placing the study room under a staircase or adjacent to a bathroom. Location of children bed room is at North-West Corner. It is also recommended that at N-E corner good for Girls. Creating a sleep sanctuary for your child isn't just about picking the fluffiest pillows or the most charming bedspread it's about positioning and balance, something Vastu Shastra, the ancient Indian science of architecture, knows all too well. According to Vastu, the ideal placement of a bed is in the southwest corner of the room, which is believed to lend stability and promote calmness in sleep. The head should ideally be towards the east or south to ensure that the dawn greets your child with positivity and the night soothes them with deep, uninterrupted dreams.

### 3) LIVING ROOM

Vastu recommends an east-facing living room to bring in positive energy and sunlight. Scientific reason: East-facing rooms receive natural morning sunlight,

which regulates circadian rhythms and boosts mood. Vastu suggests building a living room in the South-West corner for stability and calmness. Scientific reason: This corner tends to receive softer, warm sunlight, creating a cozy atmosphere.

Layout: - Place the furniture in a way that creates a sense of harmony and balance. Avoid clutter and keep the room organized. Use soothing colors on walls, such as shades of white, cream, or light blue.

Furniture Placement Sofa: Place it in the south or west wall, with a clear view of the door.

Plants: Place them in the northeast or east corner to bring in positivity. Use a square or rectangular shape for the room, avoiding circular or irregular shapes. Minimize the use of dark colors, especially on walls. Hang wind chimes or a bell to create a soothing sound.

Direction:

The ideal location for a living room is east or north. East-facing rooms bring in positive energy, while north-facing rooms attract wealth and prosperity.

Seating:

Place seating areas in the south or west directions, as these areas are associated with stability and comfort.

#### 4) GUESTROOM

1. Location:

The ideal location for a Guest Room is in the North-West (NW) direction of the house. This direction is considered auspicious for guests and helps to ensure a comfortable stay.

2. Bed placement:

Place the bed in the SW corner of the room, with the headboard against the south or west wall.

This promotes relaxation and rejuvenation.

3. Door placement:

Ensure the door is not directly opposite the bed, as this can create a sense of discomfort. Place the door in a way that it opens towards the NE or NW direction.

4. Window placement:

Windows on the east or north side of the room are considered beneficial, allowing natural light and positive energy to enter.

5. Natural Light:

Living rooms are often placed near the entrance to maximize natural light and ventilation. This is because

the front of the house typically receives more sunlight and fresh air.

6. Social Interaction:

Living rooms are designed for socializing and entertaining guests. Placing them near the entrance allows for easy access and creates a sense of welcoming.

7. Acoustics:

The living room is often located away from bedrooms to minimize noise disturbance. This is because living rooms tend to be areas of higher activity and noise levels.

8. Circulation:

Placing the living room near the entrance helps create a clear circulation path within the house. This makes it easier for people to move through the space.

9. Architectural Aesthetics:

Living rooms are often designed to be visually appealing and create a sense of arrival. Placing them near the entrance allows for a grand entrance and creates a sense of drama.

#### 5) KITCHEN & DINING

The presiding deity of South-East is Agni, the God of fire. Therefore, the sages laid down the rule that kitchen should be on the South-East. According to Hygienic Science the sun-rays indirectly help to kill the bacteria in kitchen. Dining should be at western side but seating arrangement should be east and west.

1. Fire Element: The kitchen represents the fire element, which is associated with energy, passion, and transformation. Placing the kitchen in the right direction and layout helps to balance this element.

2. Health and Wellness: The kitchen is where food is prepared, and Vastu ensures that the food is prepared in a healthy and positive environment. This affects the well-being of the occupants.

3. Wealth and Prosperity: The kitchen is also associated with wealth and prosperity. A well designed kitchen according to Vastu principles can attract abundance and prosperity.

4. Family Harmony: The kitchen is often the heart of the home, where family members gather. A Vastu-compliant kitchen promotes harmony and unity among family members.

5. Energy Flow: Vastu ensures that the kitchen is placed in a way that allows for a smooth flow of energy (chi) throughout the house.

6. Avoid Clashes: Vastu helps avoid clashes between different elements (fire, water, earth, air) in the kitchen, which can lead to conflicts and problems.

7. Balances Elements: Vastu balances the elements in the kitchen, ensuring that no single element dominates, leading to imbalances.

## 6) BATHROOMS

### 1. Direction:

Vastu recommends building bathrooms in the northwest or southeast directions. Scientifically, these directions receive less sunlight, reducing moisture and bacterial growth.

2. Water Flow: Vastu advises that water should flow from east to west or north to south. This aligns with the natural flow of water on Earth, promoting smooth drainage.

3. Toilet Placement: Vastu suggests placing toilets in the northwest or southeast corners. This reduces the impact of toilet odors and moisture on the rest of the house.

4. Shower and Sink: Placing showers and sinks in the north or east directions allows for natural light and ventilation, reducing moisture buildup.

5. Mirrors: Vastu recommends avoiding mirrors opposite the bathroom door. Scientifically, this prevents the reflection of light and heat, reducing eye strain.

6. Colors: Vastu suggests using calming colors like blue or green in bathrooms. These colors have a calming effect on the mind and body.

### 7. Ventilation:

Vastu emphasizes proper ventilation in bathrooms to remove moisture and odors. This aligns with scientific principles of indoor air quality.

### 8. Drainage:

Vastu advises proper drainage systems to remove wastewater efficiently. This aligns with scientific principles of sanitation and hygiene.

### 9. Privacy:

Vastu recommends privacy in bathroom design. Scientifically, this reduces stress and promotes relaxation.

### 10. Cleanliness:

Vastu emphasizes cleanliness in bathroom design. Scientifically, this reduces the spread of diseases and promotes hygiene.

11. Sunlight: The south direction receives ample sunlight, which can help to reduce moisture and bacterial growth in the bathroom.

12. Ventilation: These direction often receives gentle breezes, which can improve ventilation and remove moisture and odors from the bathroom.

13. Heat: These direction receives warmth from the sun, which can help to heat the bathroom and reduce the need for artificial heating.

14. Humidity: The direction tends to have lower humidity levels, which can reduce the growth of mold and mildew in the bathroom.

15. Privacy: The direction is often considered a more private location for bathrooms, as it is away from the main living areas and public spaces.

16. Natural Disinfection: The sunlight and heat from the south direction can help to naturally disinfect the bathroom, reducing the need for harsh chemicals.

17. Reduced Condensation: The direction tends to have reduced condensation, which can minimize the risk of water damage and mold growth.

## 7) TOILET

A) Northwest (NW) direction: This direction is considered optimal for toilets as it is associated with the element of air, which helps to dissipate odors and moisture.

1) Reduced moisture: The NE direction receives less sunlight, which can reduce moisture accumulation and minimize the growth of bacteria and mold. Reduced sunlight leads to lower temperatures and humidity levels, making it harder for moisture-loving microorganisms to thrive.

2) Easy drainage: The NE direction is associated with the element of water, which can facilitate easy drainage and reduce the risk of water accumulation. The NE direction's association with water can create a natural slope for drainage, allowing wastewater to flow more easily and reducing the risk of backups.

3) Minimized odors: The NE direction is considered a "cool" direction, which can help minimize odors and moisture.

4) Cooler temperatures and lower humidity levels in the NE direction can reduce the volatility of organic compounds, leading to fewer odors. - Reduces the impact of toilet odors and moisture on the rest of the house. Minimizes the spread of bacteria and germs. Creates a sense of privacy and separation from living areas. The direction receives less sunlight, reducing moisture bacterial growth. This direction is often which can help to dissipate odors and moisture.

5) Privacy: The SE direction is often considered a more private location, away from living areas. The SE direction's proximity to the building's exterior and distance from living areas can create a natural buffer zone, enhancing privacy. 6) Reduced energy consumption: Toilets in the SE direction may require

less energy for heating and lighting due to the natural light and ventilation. The SE direction receives natural light and ventilation, reducing the need for artificial lighting and heating, which can lead to energy savings.

7) Improved hygiene: The SE direction's warmth and natural ventilation can help reduce the growth of bacteria and mold, improving hygiene. The SE direction's warmth and natural ventilation can create an environment that is less conducive to the growth of microorganisms, improving hygiene.

## B) PROSPECT

Prospect is the view desired by the occupants of the building from certain rooms of the house. Prospect is dictated by surrounding peculiarities good or bad of the selected site like a flower garden or garbage dumps.

It demands the disposition of doors and windows like aspect. However, a good layout should not be disturbed for the sake of good prospect only.

- Refers to the direction a room or building faces
- Plays a crucial role in determining the energy and vibrations of a space
- Different directions have different energies and effects on occupants.

## C) PRIVACY

Privacy is an important part of building planning. Privacy may be from one part to other of the same building or it could be from neighboring buildings, streets, etc. In residential buildings, every room should have certain privacy which can be secured by careful planning the entrance, path-ways, and drives. Proper grouping of rooms, good positioning of doors and windows, lobbies or screens can give required internal privacy. Toilet rooms, bedrooms, w.c., urinals, should have absolute privacy.

- There are two types of privacy

1. Internal Privacy
2. External privacy

### 1. Internal Privacy:

- Room placement: Strategic placement of rooms, such as bedrooms and bathrooms, to ensure privacy.
- Door placement: Positioning doors to minimize visibility and access to private areas.
- Walls and partitions: Using walls and partitions to separate living areas and create private spaces.
- Level differences: Using level differences, like split-level designs, to create separate areas.

- Screen and dividers: Utilizing screens and dividers to section off areas within open-plan spaces.

### 2. External Privacy: -

It is nothing but the privacy of the building. If the building is exposed to the public street or neighbor building. There is no privacy for that. The entrance can be screened with trees or suitable grid work.

- We can achieve the privacy by developing a garden around the building
- Fencing and boundaries: Installing fencing and defining boundaries to separate the property from neighbors and the street.
- Landscaping: Using plants, trees, and shrubs to create natural barriers and block views.
- Window placement: Positioning windows to minimize visibility from the outside and maintain privacy.
- Window treatments: Using curtains, blinds, and shades to control visibility and privacy.
- Outdoor spaces: Designing outdoor areas, like patios and decks, to create private spaces.

## D) FURNITURE

Is a functional Furniture is a functional requirement of a room. Living room, drawing room, kitchen, a classroom, office room, laboratory, hospital room etc. all have their own furniture requirements. A room should have enough space to accommodate all the furniture required for the maximum number of persons without overcrowding. Functional Requirements:

1. Comfort: Furniture should provide comfort and support for various activities, such as seating, sleeping, and dining.
2. Storage: Furniture like cabinets, shelves, and drawers offer storage solutions for organization and clutter management.
3. Ergonomics: Furniture should promote good posture and reduce strain, especially for pieces like chairs, desks, and beds.
4. Safety: Furniture should be stable, secure, and free from hazards, especially for children and pets.
5. Maintenance: Furniture should be easy to clean, maintain, and repair.

### • Types of Furniture:

1. Seating (sofas, chairs, stools)
2. Sleeping (beds, mattresses)
3. Dining (tables, chairs)
4. Storage (cabinets, shelves, drawers)
5. Workspaces (desks, chairs)
6. Decorative (art, sculptures, rugs)

## E) ROOMINESS

Roominess is obtained by getting the maximum benefit from the minimum dimension of a room without cramping of the plan. By using every nook and corner of the building to the maximum advantage roominess is derived.

Factors effecting of roominess are

1. Size of the room
2. Shape
3. Furniture used
4. Position of doors, windows

Roominess refers to the perception of spaciousness and comfort in a room or house. It's the feeling of having enough space to move around, relax, and engage in activities without feeling cramped or claustrophobic. Roominess encompasses various aspects, including:

1. Physical space: The actual square footage and layout of the room.
2. Visual space: The perception of space created by visual elements like lighting, color, and furniture arrangement.
3. Functional space: The usability and functionality of the room, including the flow of traffic and the availability of storage and amenities.

A roomy space typically features: - Ample natural light - High ceilings or vertical elements - Open floor plans or flowing layouts - Minimal clutter and organized storage - Comfortable furniture and decor - Good ventilation and air circulation - A sense of calm and relaxation Roominess is subjective and can vary depending on personal preferences, cultural influences, and lifestyle needs. However, by incorporating elements that promote spaciousness, comfort, and functionality, you can create a roomy and inviting atmosphere in your home.

#### F) GROUPING

Grouping consist in. arranging the layout in typical fashion so that all the rooms are placed in proper correlation of their functional in due proximity with each other .It is the disposition of various rooms in new of their relative and co-ordination, between them. In residential buildings.

Dining room should be closer to kitchen. Kitchen should be away from living room to avoid smell and smoke. Main bedrooms should have independent and separate access from each room towards the sanitary units.

1) Grouping information in a building refers to the process of categorizing and organizing various

elements or features within a building into logical groups or categories.

This can include:

- Rooms and spaces (e.g., bedrooms, bathrooms, kitchen, living areas)
- Building systems (e.g., electrical, plumbing, HVAC, security)
- Amenities (e.g., pool, gym, community garden)
- Structural elements (e.g., walls, floors, roof, foundation)
- Exterior features (e.g., landscaping, parking, outdoor spaces)
- Interior finishes (e.g., flooring, walls, ceilings, countertops)
- Furniture, fixtures, and equipment (FF&E)
- Technology and smart building features
- Sustainability and energy-efficient features
- Accessibility and universal design elements

2) Grouping information in a building can help with:

- Organization and communication
- Design and planning
- Construction and maintenance
- Operations and management
- Occupant experience and engagement

It can also facilitate analysis, comparison, and decision-making related to building performance, efficiency, and user satisfaction.

#### G) CIRCULAR

Access or internal connection between rooms of the same floor or between floors is known a circulation. Circulation between rooms of the same floor is called horizontal circulation like – passages, corridors, halls etc.

Circulation among various floors is known as vertical circulation, like – Stairs, lifts.

Circulation in a building refers to the movement of people, air, and objects within and around the building. It encompasses various aspects, including:

1. Pedestrian circulation: Movement of occupants and visitors through corridors, hallways, stairs, and elevators.
2. Vehicle circulation: Movement of cars, trucks, and other vehicles through parking areas, driveways, and loading zones.
3. Air circulation: Movement of air through ventilation systems, windows, and doors.

4. Service circulation:  
Movement of goods, supplies, and equipment through service corridors and elevators.

• Effective circulation in a building is important for:

1. Safety and accessibility
2. Efficiency and productivity
3. Comfort and well-being
4. Energy efficiency and sustainability
5. Aesthetics and user experience

• Design considerations for circulation in buildings include:

1. Clear and intuitive way finding
2. Sufficient corridor and hallway widths
3. Adequate lighting and signage
4. Stair and elevator placement
5. Accessibility features (e.g., ramps, elevators)
6. Traffic flow and control (e.g., one-way corridors)
7. Integration with other building systems (e.g., HVAC, security)
8. Flexibility and adaptability for future changes

#### H) SANITATION

Sanitation of a building not only associates with urinals, bath-rooms, wash-basins, sinks but also the overall lighting and ventilation. All the parts of a building should have well lighting and ventilation to maintain good hygienic conditions. This could be done with natural way or in an artificial way (air condition). Necessary provision to facilitate the cleaning of the building should be installed. Washing closet, lavatories, urinals, bathrooms like sanitary conveniences should be installed adequate in number in relation to the occupant load.

For example :-

1. Water supply and treatment
2. Waste management (sewage, trash, recycling)
3. Toilet and bathroom facilities
4. Kitchen and food handling areas
5. Cleaning and disinfection protocols
6. Pest control and rodent prevention
7. Ventilation and air quality management
8. Drainage and storm water management

- Proper sanitation in a building is crucial for:

1. Occupant health and well-being
2. Preventing disease transmission

3. Maintaining a clean and pleasant environment
4. Compliance with regulations and codes
5. Protecting the building structure and systems

- Sanitation considerations in building design and operations include:

1. Adequate ventilation and air exchange
2. Easy-to-clean surfaces and materials
3. Accessible and well-maintained sanitation facilities
4. Effective waste management systems
5. Regular cleaning and disinfection schedules
6. Training and education for occupants and staff
7. Integration with other building systems (e.g., HVAC, plumbing)
8. Continuous monitoring and improvement.

#### I) FLEXIBILITY

Flexibility means planning the rooms in such a way which though originally designed for a specific purpose, may be used for other purposes also when desired. For designing of houses for middle-class families or other buildings where the economy is the main consideration flexibility should always be considered.

If large space needed in a certain time in a house to accommodate the gathering, it can be obtained by removing a removable partition wall or curtain between the drawing room and dining room. Alternatively, open yard, garden, or verandah can also be provided.

Flexibility in building design and operations refers to the ability to adapt to changing needs, uses, and conditions over time.

This includes:

- Benefits of flexibility in buildings include:

1. Increased adaptability
2. Improved user experience
3. Enhanced sustainability
4. Reduced costs
5. Increased property value
6. Improved resilience
7. Better accessibility
8. Increased technological integration
9. Improved maintainability
10. Extended building lifespan

By incorporating flexibility into building design and operations, we can create buildings that are more responsive to changing needs and conditions,

ultimately leading to more sustainable, resilient, and user-friendly spaces.

#### J) ELEGANCE

The elegance is the overall effect produced by elevation and general layout of the plan of a building. To get a good elegance of a building it is better if elevation is developed first and then the plan is adjusted accordingly. Selection of site for the building greatly affects the elegance. Building located in depression will give bad elegance whereas building located on an elevated spot gives an impressive appearance. Elegance in building design refers to the creation of a aesthetically pleasing and harmonious structure that exudes refinement, sophistication, and grace. Here are some key elements that contribute to elegance in building design:

1. Proportion: Balanced and harmonious proportions create a sense of elegance.
2. Simplicity: Clean lines, minimal ornamentation, and a focus on essential elements.
3. Symmetry: Use of symmetry to create a sense of order and balance.
4. Light: Strategic use of natural and artificial light to create a sense of brightness and airiness.
5. Materials: Selection of high-quality materials that exude warmth and sophistication.
6. Texture: Use of varied textures to add depth and visual interest.
7. Color: A muted color palette with a focus on neutral tones and subtle accents.
8. Form: A clear and cohesive form that is free from clutter and unnecessary elements.
9. Functionality: A focus on functionality and usability.
10. Contextual response: A design that responds to and respects its context and surroundings.

- Elegance in building design works by:

1. Creating a sense of calm and serenity
2. Evoking a sense of luxury and sophistication
3. Enhancing the user experience
4. Providing a sense of pride and ownership
5. Increasing property value
6. Creating a lasting impression
7. Showcasing craftsmanship and attention to detail
8. Providing a sense of timelessness and enduring beauty

By incorporating these elements, architects and designers can create buildings that exude elegance and

sophistication, providing a lasting and positive impact on users and observers alike.

#### K) ECONOMY

The economy is a major factor in building planning. To fit the proposed scheme within the limitations of the resources and funds certain alteration and omissions in the original plan have to make. But while considering the economy, the required strength and durability of the structure should not be compromised.

Some simple economy achieving approaches in buildings are –

- Practical consideration
- Simple elevation, dispensing of porches, lobbies, Steeper rise to the stair, wider steps in stairs. Reducing the story height to bare minimum Standardization of sizes of various components, and materials.
- Strength, stability, convenience, and comfort of the occupants of the building, should be considered first.
- Provisions for future extensions without dismantling should be made in the planning.
- The building should be strong and capable to withstand the likely adverse effects of natural agencies (earthquake, flood, storm etc.)
- Larger size of the rooms should always be considered as far as possible as it can be shortened by providing movable partitions but smaller rooms cannot be enlarged easily.

#### CONCLUSIONS

Vastu Shastra is not a Mythology it is Science and Technique to construct a building. Vastu-compliant buildings are believed to attract positive energy, resulting in enhanced quality of life. For instance, the strategic placement of windows and doors can significantly influence ventilation and natural light. Numerous case studies showcase the success of buildings designed with Vastu principles, underscoring their impact on occupants' lives.

In conclusion, this paper has delved into the scientific reasoning behind Vastu Shastra principles, aiming to spread awareness and promote the positive impact of this ancient science to a wider audience for the betterment of society. By establishing the relationship between Vastu Shastra and natural phenomena such as the Sun's energy, magnetic forces, and the rotation of the Earth, we have highlighted the scientific underpinnings of Vastu Shastra. Furthermore, this paper offers a comprehensive plan

for designing homes in accordance with Vastu Shastra principles, supported by scientific validation.

By providing practical guidelines and explanations, we empower individuals to apply Vastu principles in their own living spaces, thereby enhancing their well-being and quality of life. It's crucial to remember a key aspect of Vastu Shastra: the strategic elevation of different sides of the building. The southwest side should be elevated, bearing the weight of heavy structures, and surrounded by closed surroundings. In contrast, the northeast side should be kept at a lower elevation, with open surroundings. This balancing act ensures that the energies flowing from the northeast, considered auspicious and beneficial, are unobstructed and allowed to flourish.

Looking ahead, the future scope for research in Vastu Shastra is vast and promising. Further studies could explore additional scientific evidence to support Vastu principles, requiring expertise and interdisciplinary collaboration. By continuing to deepen our understanding of Vastu Shastra through scientific inquiries.

#### ACKNOWLEDGEMENT

We would like to express our gratefulness and sincere gratitude to my guide Mr. A. B. Jadhav, for guiding us to accomplish this project work. It was our privilege and pleasure to work under his able guidance, we are indeed grateful to him for providing helpful suggestion, from time to time. Due to his constant encouragement and inspiration we are able to present this project. We are thankful to our parents for their moral as well as support.

#### REFERENCES

- [1] Olivier, Paul. Encyclopedia of Vernacular Architecture of the World. S.L.: Cambridge University Press, 1997.
- [2] Shukla, D. N. (1993). Vaastu Shstra- Hindu Science of Architecture, Vol. II & I. New Delhi: Munshiram Manoharlal.
- [3] Journal Of Indian Institute Of Architects, Sep 1995.L J Wang etal 2000 Nature 406 277.
- [4] Bhattacharya, T. 1986. The Canons of Indian Art: A Study of Vaastu Vidya. Calcutta: Firma K. L. Mukhopadhyay.
- [5] Secrets Of Vastushastra, By N. H. Sahastrabudhe And R.D. Mahatme. ISBN 81-207-2042-3.

- [6] Rao, D. M. (1995). Vaastu Shilpa Shstra: The Hidden Treasures of Vaastu Shilpa Shstra and Indian Traditions. Bangalore: S. B. S. Publishers.