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TOWARDS THE FUTURE OF VAASTU SHASTRA: A SCIENTIFIC INQUIRY IN TO DESIGN IMPLEMENTATION ENABLING CULTURAL CONTINUITY

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Abstract. Traditional knowledge and the resultant constructed environment retain the design culture and tradition that underpin everyday human activity. The traditional knowledge systems in India comply with ancient building science like Vaastu Shastra. As an active building science practice in India, cultural continuity ensured even now through Vaastu Shastra and it is necessary to examine the adaptability, according to the changing needs of such traditional systems in the contemporary era. Vaastu Shastra interpreted as a design culture and design standardization with a participatory approach that leads to a well-planned traditional built environment. This paper investigates the design methods and its scientific rationality in traditional domestic architecture as it emerged from ancient building science like Vaastu Shastra. Vaastu Shastra is more in alignment with symbolism and cosmology, thus it guides the design practice even to the local artisan level. The discussion brings insights into how cosmological symbolism can support the implementation of design thoughts aligned with Vaastu Shastra building science. The paper concludes the significance of cosmological symbolism in the Vaastu Shastra science and in order to highlight the subject's continuity over time, a design process and related scientific knowledge are ascertained.

Keywords: *Cosmological symbolism, design process, traditional built environment, Vaastu Shastra.*

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1. Introduction

Traditionally built spaces are gaining popularity over contemporary designs but it is unlikely that they provide the intended cultural context. The traces of the traditional built environment marked its presence in contemporary architecture, but it is unclear whether the designed built spaces are in accordance with the intended meaning in response to the surrounding environment and context. Contemporary building designs have little or no reference to the natural and spiritual context in which the building stands (Lah *et al*., 2015). Traditional built spaces began to focus anew on scientific knowledge concerning society, culture and the built environment. These spaces are the material expression of the human living form and the resultant spatial structure indicates the vernacular living and environmental factors (Gokce & Chen, 2018). Traditional dwellings are formed out of the process of understanding the natural and human environment and the resultant dwelling culture is the accumulation of history and

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tradition that showcases everyday life (Wang & Chiou, 2020). As traditional spaces are gaining popularity and acceptability, exploring the scientific reasoning behind them is a requirement of the hour to ensure cultural continuity.

Early human civilizations marked the existence of cosmological aspects in design. A sense of fear pervaded in them, as they believed some supernatural or a superior power existed from above over the sky. The fear of being watched by someone from above lead way for the strict code and conduct for human interventions on land. Cosmological symbolism holds great power in the design of ancient architecture, reflecting cultural belief's, fitting architecture into its natural background and providing symbolism shared by its dwellers (Xu, 1996). The cosmological perception in design thinking and practice integrates man with the surrounding context. The existence of such practices integrating man and the related codes and conduct are to be investigated in Ancient building science like Vaastu Shastra in India.

Vaastu Shastra is an ancient building design practice in India since prehistoric times. Participatory approach in Vaastu Shastra involves incorporating all stakeholders (Hartson & Pyla, 2019) in the design development and results for a user-friendly built environment that satisfies the user need and requirements. The continuity of traditional architectural elements in the contemporary design world accounts for a solid foundation of design thinking and people's participation plays a vital role in keeping the acceptability and adaptability of Vaastu Shastra science. The culture-induced Vaastu Shastra design practices connect people and beliefs with the built environment. Vaastu Shastra describes about environmental design according to person-place identity (Sinha, 1998). Spaces formed out from a particular geographic area responds to the physical arrangements exists there and the corresponding practices in relation with those arrangements (Hasgul, 2019). The historical design process as evident from Vaastu Shastra is relevant to contemporary explorations in alternative paradigms (Zutshi, 2017). The design thinking involved in the formation of traditional dwellings and such architectural systems merged with human and nature relationships, act as a framework and lead to continuity of space and acceptance. Improper research intervention on vaastu shastra paves way for the risk of superstitious beliefs and misinterpretation of its application. Thus, the aim of the research envisages the assessment of Vaastu Shastra science in terms of cosmological symbolism induced design methods, practice and its scientific rationality. The research sreds light on the identification of a well-structured design process and its participatory approach in design implementation for the continuity with the intended meaning.

2. Vaastu Shastra

Culture governs the way people behave and uses a dwelling and as such, it influences the preferences for and choices of dwelling features (Coolen & Ozaki, 2004). The traditional domestic architecture of Kerala evolved out of Vaastu Shastra principles, showcase the culture and lifestyle. Previous research has demonstrated that the aesthetics of traditional architecture narrates not just the present context but also describes the historical identities imbibed in it to address the transformation over time (Jency & Atreya, 2022). The design principles of Vaastu Shastra guide the relationship between different functional areas and their allocation on-site to develop a unique design practice all over the region. Vaastu Shastra is identified for its strong architectural system (Goodarzi & Fazeli, 2014) and the traces of it is visible in many civilizations. The cultural continuity in the built environment ensures as it aligns more with cosmological aspects linking

people's beliefs and daily activities. A more scientific interpretation of Vaastu Shastra in design practice as it away from mysticism is the need of the hour. A growing interest in the topic of Vaastu Shastra is visible from the researches performed to time (Figure 1). Considering the recent development within the existing paradigm, this paper attempts to address whether the cultural symbolism based design process and practice of, Vaastu Shastra acts as a strong backbone to marks its existence in the contemporary world. A successful update of traditional Vaastu Shastra principles for contemporary use can be achieved only by focusing on the method of design. An application of the design process would generate an architecture that is not self-consciously atavistic and dated but is at ease with modern requirements and technology. This process would have to involve a multi-disciplinary approach to community design, taking indigenous models as the starting point (Pusalkar, 2022).

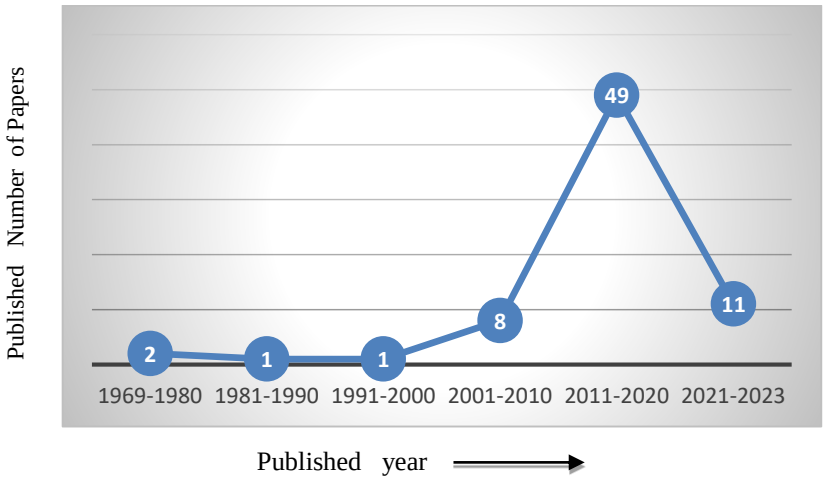


Figure 1. Research development on Vaastu Shastra
Source: Author(s)

2.1. Vaastu Shastra Principle; systematic design practice

Vaastu Shastra is a Sanskrit term and the meaning of the word reflects vaastu as a place to live and shastra as knowledge or science. The word "vaastu" is derived from the root word, "vas," which means, "to dwell" (Kramrisch, 1954). The practice of Vaastu Shastra marks its continuity in the contemporary building design applications and seeks for scientific ways for establishing it with intended meaning. Vaastu Shastra can be thought of as a technological hermeneutic that seeks to understand technical action within the context of cultural traditions related to the ritual context of constructing houses and cities (Patra, 2017). Traditional built environment evolved under the guidelines of Vaastu Shastra provides an order in production of spaces and it is in direct response to user needs. The resultant space reflects the way of life followed within the constraints and order suggested by vaastu principles. There are seven fundamental principles of Vaastu Shastra, viz: 1) Examination and selection of Site; Bhupariksha; 2) Determining the orientation; Dik nirnaya, 3) Building measurement test; Aayadi gananam, 4)Vaastu purusha mandala; Padavinyasa, 5) Zoning; Griha vinyasa/Sthana vinyasa, 6) Door openings; Dwara sthana and 7) Proportion of the building; Bhulamba vidhanam (Balasubramanian & Nagan, 2015). These seven principles of Vaastu Shastra guides the whole of the design process right from the scratch to the completion of buildings. Vaastu Shastra vedic knowledge was preserved through hearing (shruthi), memorizing (smriti)

and texts (puranas), accordingly the principles are based on the panch bhutas viz, earth, water, fire, air and space. These principles are formulated in consideration with the cosmic influence of the sun, light and heat, solar energy, direction of wind, position of moon, earth's magnetic field and the influence of cosmos on our planet (Patra, 2006). A strong framework as well as basis for the design, evolved out from the derived principles of Vaastu Shastra and it ensures the design continuity even now. Vaastu Shastra is an applied science approach and the principles can be easily tuned, extended and modernized to meet the needs reflecting the modern lifestyles and modern materials (Patra, 2009). Cosmological symbolism and the associated meaning in design is visible in ancient architectural marvels of Kerala. These principles denotes a systematic process of design stages incorporating man and the surrounding context.

3. Research Methods

The research focuses on a comprehensive systematic literature review and case study method, to understand the design process and practices as well as to determine the topic's applicability in the current scenario in relation to Vaastu Shastra science. Articles selected from four databases namely Scopus, Web of science CORE and Google Scholar. The search terms were 'traditional architecture', 'Vaastu Shastra', 'spatial culture and 'Kerala vernacular architecture'. To complement the search strategy, forward citation searching done based on the reference list of articles selected.

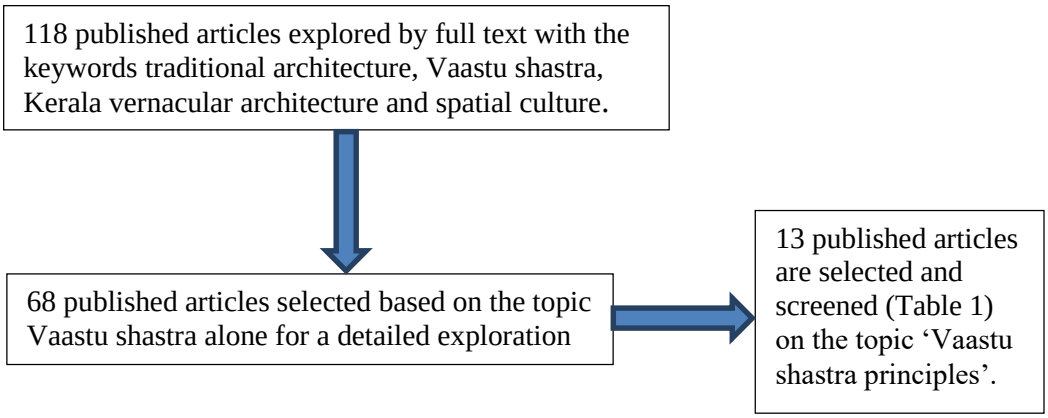


Figure 2. Selection criteria of journals
Source: Author(s)

The findings after the literature review, compared with pertinent case studies from traditional houses of Kerala. The results after the literature review investigated against scientific reasoning with the help of case studies and field observations and it reveals the integration of cosmological symbolism in the design process of the Kerala traditional built environment as per Vaastu Shastra.

4. Comprehensive Literature study

Table 1. Literature study on Vaastu Shastra principles

Authors	Vaastu Shastra principles	Design process and practice	Research findings and scientific thinking	Cosmological symbolism
(Meister, 1979)	Principle 4- Vaastu purusha mandala; Padavinyasa	Square grid provides a flexible and resilient foundation for modern designs, ensuring continuity and adaptability in applications.	The textual evidence lacks engagement with design methods and theory, thereby limiting continuity. Case based analysis with scientific thinking is required to ensure continuity.	Square grids symbolize cyclical times, but cosmological influence disrupts their true significance.
(Thakur, 1990)	Principle 4- Vaastu purusha mandala; Padavinyasa	Square as the basic design unit: 81 squares (9x9) for domestic buildings, 64 squares (8x8) for religious buildings.	Designers used specific measurements to achieve perfection, harmony and accuracy in the grid.	Vaastu purusa mandala is a ritual diagram representing the Universal Essence, the Purusa.
(Bafna, 2000)	Principle 4- Vaastu purusha mandala; Padavinyasa	Vaastu Purusha mandala -generative diagram acts as a guiding principle for zoning as well as site planning.	Concentric grids with cardinal directions shows regulating, generative and organizational powers according to past studies and it needs to be challenged.	Grid diagram imposed with Vaastu purusa and the associated deities showing the ritual significances.
(Patra, 2006)	Describes generally about all principles	Principle's gives insights on site selection and its topography, orientation, space zoning and their proportions as well as rituals for successive stages of the design process.	Research establishes correlation between Vaastu Shastra, Heidegger's building, dwelling and thinking	Building design expresses relation between the Universe and man by taking advantage of basic elements- earth, water, fire, air and space.
(Md Rian *et al*., 2007)	Principle 3- Building measureme nt test; Aayadi gananam `	Fractal geometry from the divine diagram induced out of cosmology and philosophy acts as the basis for the design development	Application of fractal geometry can paves way for unimaginable forms and patterns in contemporary architecture.	Layout of cosmos graphically copied to establish a connection between physical World with the divine world.
(Balasubra manian & Nagan, 2015)	Describes generally about all principles	The various aspects of the planning and building design process governed by methodical, meticulous principles as per traditional Indian architectural treatises.	architectural knowledge of the past can very well be applicable for the changing dynamics of the society and technology with appropriate minimum modifications and without affecting the fundamental ideology	The influence of 5 basic elements- earth, water, fire, air and space reflected in the design connecting man and nature.

(Suriyanarayanan *et al*., 2016)	Describes generally about all principles	Vaastu-shastra directs the process of design and explains the interrelationships between the constructed environment, the universe and man.	Vaastu Shastra science in future should consider for its scientific backings rather than emotional needs.	Five elements of the universe while considering the design and the man, nature relationship enhances universal life force energy.
(Adam *et al*., 2016)	Principle 4-Vaastu purusha mandala; Padavinyasa	Bindu and mandala, which is the basis of spatial geometries. Sri-Yantra acts as primary source of form generators deep routed in spirituality.	The concept of Bindu and mandala helps to theoretically root the design in tradition and paves way for contemporary application.	Mandala is a cosmic model and cosmic thinking evolved out of it. Bindu represents point of origin and mandala represents the universe.
(Dhileep *et al*., 2018)	Principle 3-Building measurement test; Aayadi gananam	Hand calculator and index system considered for fixing the orientation and proportion while designing a building.	The proportion and orientation of domestic buildings based on perimeter of core unit as per hand calculator table and it shows a strong and complex mathematical background.	The basic unit of proportionate measurement system derived from nature in connection with man.
(Dhileep *et al*., 2021)	Principle3-Building measurement test; Aayadi gananam	The practice of employing proportionate measurement system is enforced by giving divinity	Traditional social practices induced proportionate measurement system modified to fit in to modern needs.	Vaastu Shastra proportioning system is comprises of myth and math.
(Ghom & George, 2021)	Principle 4-Vaastu purusha mandala; Padavinyasa	Spatial configuration of domestic buildings are developed with vaastu purusa mandala, which considers 5 elements of the universe.	The planning principles of vaastu purusa mandala reflects the socio cultural and environmental aspects and the application of it is relevant in the contemporary designs.	Vaastu purusa mandala, a human ecological frame works represents the Universe and the 5 elements.
(Balasubramanian, 2021)	Describes generally about all principles	Building design are in response to the environmental features and the principles acts a framework for design process.	Vaastu Shastra principles based built environment reflects the user needs and ensures minimum impact on the environment.	The myths and rituals and the awareness about laws of nature accounts for participatory approach in design.
(Dash & Joshi, 2022)	Describes generally about all principles	The successive stages of design guides by Vaastu Shastra principles establishes relation between people and the built environment	Vaastu Shastra shows its acceptability and adaptability to the current context.	The pada devadas and the basic elements of the universe guides the design

Source: Author(s)

5. Case studies

Observations and conclusions drawn with the help of exploring thirty-one Kerala traditional houses. In order to verify the Vaastu Shastra principles, three case studies from the pre-independence era and one from the contemporary time period are elaborated and included in this study. Traditional case studies included are Varikkassery mana, Poonthanam Illam and Madambu mana. Joshi's residence selected as a contemporary traditional house case to explore the Vaastu Shastra principles. Conclusions derived through comparative assessment method.

5.1. Principle 1-Examination and selection of site; Bhupariksha

As a first step in design practice, bhupariksha accounts for selection of site and the design considerations in macro as well as micro level. The soil can now be tested in a more scientific setting to overcome the limitations of the poor soil conditions (Sachdev, 2005). Scientific method of soil testing are widely in use now.

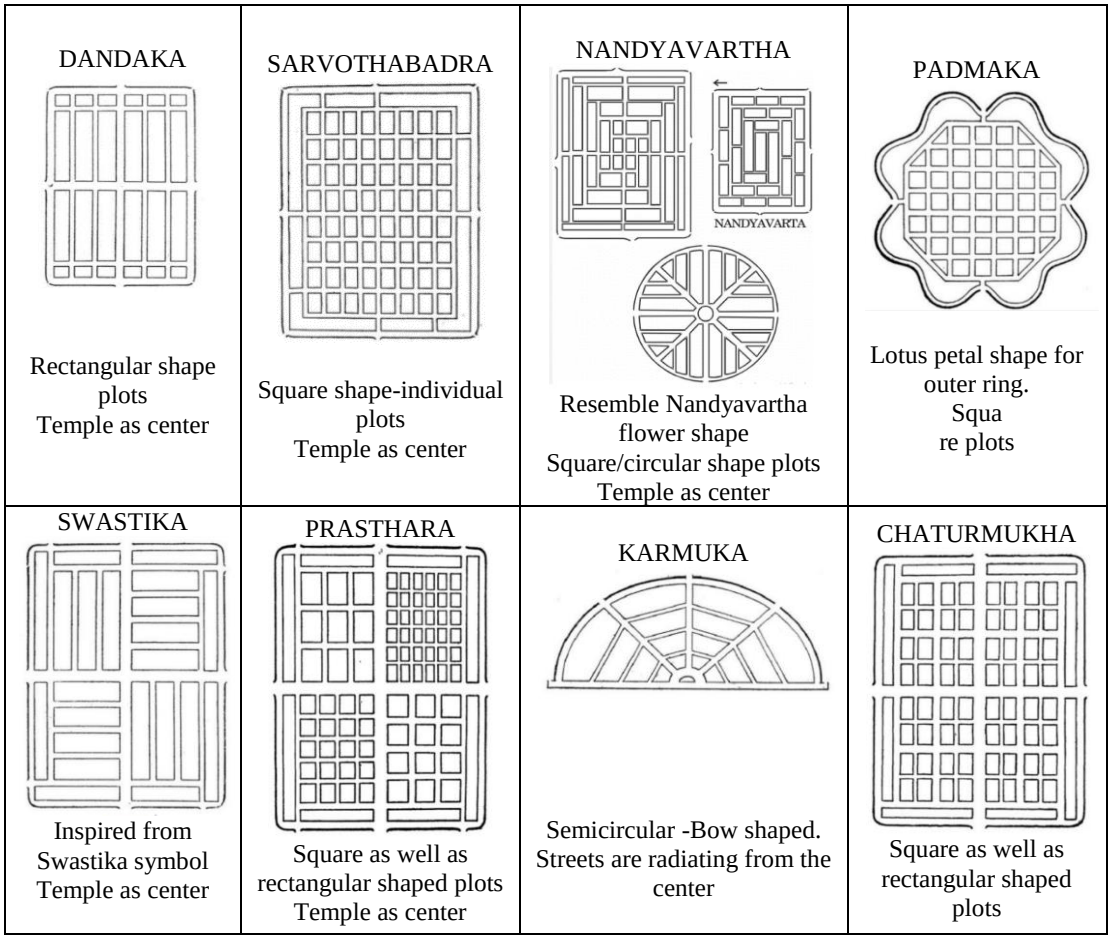


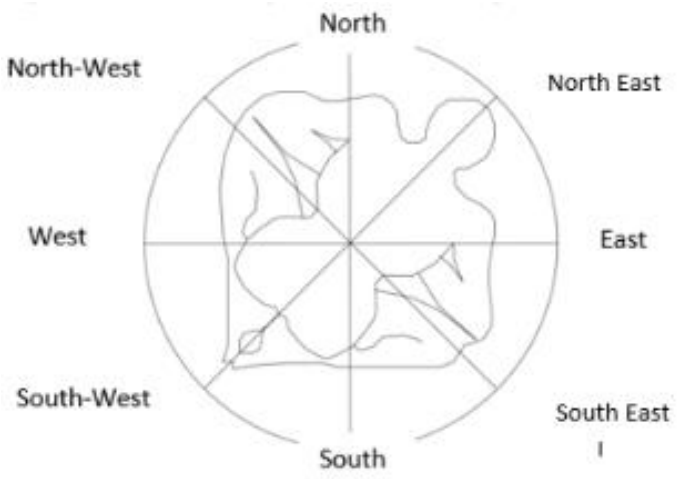
Figure 3. Cosmological symbols in Vaastu Shastra city planning
Source: Developed by the Author(s) from (Balagopal & Prabhu, 1996)

The bhupariksha lacks its continuity in the present scenario because of the limitations of parcels of land available and the scientific test available to test the site conditions. The application of the principles dealt with settlement planning as well as

individual site. The models of settlement are based on flowers nandyavarta and Padma, objects karmuka or geometrical shapes square, rectangle, polygon or circle (Balagopal & Prabhu, 1996). Cosmological symbols such as divine flowers, bows and geometric shapes are used as a design basis for city planning with focal point of settlement as a temple. As a first step in design process of individual building design, bhupariksha establishes the user's acquaintance with the site and the surrounding environment. Site location selected based on shape of site, contour of land, color of soil, odor of soil, touch of soil and taste. The plot shapes that considers auspicious are square, rectangular, gaumukhi (cow faced) and shermukhi (lion faced) and it symbolizes the divine aspects. The entire selection processes dictates user's responsiveness on site in relation with cosmological symbols and aspects. Most preferred shapes of site are rectangular and square with site frontage facing East or West. Involving the users in the site selection process creates an awareness about the environment with the help of cosmological symbols. Scientific thinking incorporated design process are required to ensure continuity.

5.2. Principle 2-Determining the orientation; Dik nirnaya

Determining the dik nirnaya principle clearly reveals the cosmological influence in deciding the orientation of the building. As a successive step after site selection, dik nirnaya decided based on the auspicious direction that is as per the direction of the temple in the settlement. The buildings are oriented towards the cardinal directions: North, South, East and West. East is considered as most auspicious direction (Dash & Joshi, 2021). Dik nirnaya principle is gaining importance among researchers now to identify the scientific reasoning to place the dik nirnaya practice in contemporary designs. The cosmological symbolism of theory of orientation is secular and religious in nature (Patra, 2017) and they are utilized for bringing comfortable living conditions . Previous research has demonstrated that the Principle of Determining 'orientation' is still in practice in a modern residences and it ensures ease of use and climatic comfort in an auspicious way in connection with tradition (Jency & Atreya, 2022). The design of buildings according to Vaastu Shastra is efficient to resolve the problem of climatic related aspects.



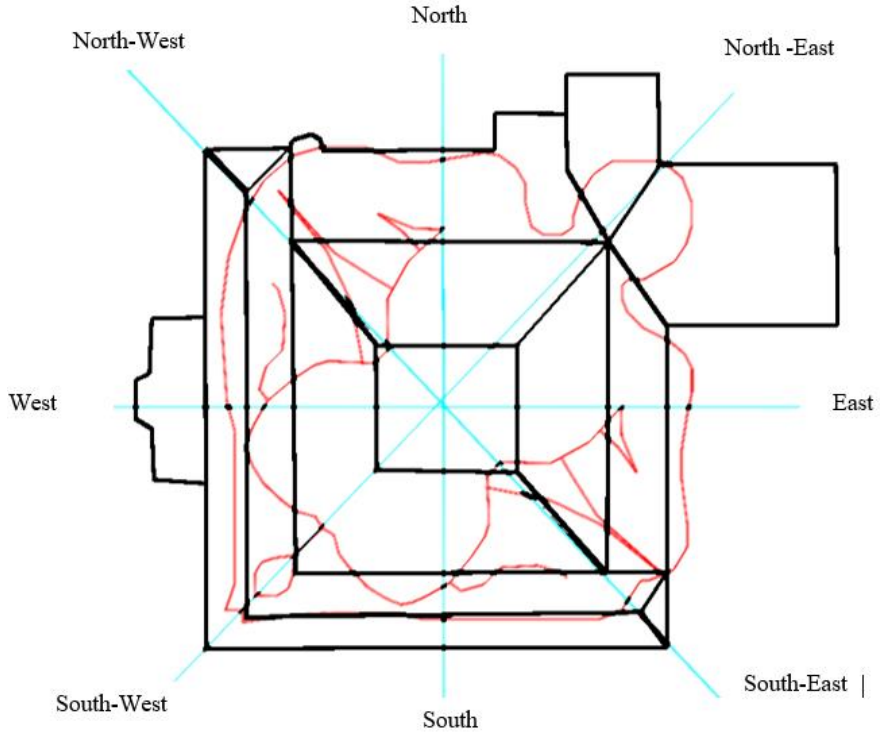


Figure 4. Vaastu purusha and the cardinal directions on site (Varikkassery Mana)
Source: Author(s)

The solar integrated vaastu guidelines can be utilized for a zero energy building (Thakare *et al*., 2020). The dik nirnaya principle practiced in design is to take maximum advantage of the sun. The cardinal directions are preferred over ordinal directions while considering the orientation of the building. The application of dik nirnaya in design process ensures harmony with the surrounding context; interlinking part to the whole. Daily rituals start by praying the sun, the building orientation towards East ensures the user to orient themselves with the surrounding context.

5.3. Principle 3- Building measurement test; Aayadi gananam

The measurement system in Vaastu Shastra is in accordance with the dimension derived from the user. Hasta system, derived from the Human body relates the space with the cosmos. The measurement of the designed spaces by the material specification and types of construction, serves as a fraction for all other dimensions. Vaastu Shastra reminder system is conceptualized to give continuity to spaces and function. The fractal geometry performs the key role for transforming or manifesting the Hindu cosmology and philosophy into the divine diagram, vaastu purusha mandala and then to the structure (Md Rian *et al*., 2007). Here a connection between physical world with the divine world established through the application of this principles. The application of the principle is to achieve harmony between the absolute and the quantifiable (Patra, 2017). The measurement system based on the dimensions derived from the user and application of it in to divine diagram shows the linkage between the man and the cosmos to achieve harmony.

5.4. Principle 4- Vaastu purusha mandala; Padavinyasa

Vaastu purusha mandala is a grid that forms as the basis for starting the design and symbolically represents the Universe. The vaastu mandala square is symbolical of all cyclical time as per (Kramrisch, 1954). Vaastu Purusha mandala acts as a guiding principle that forms the basis for zoning as well as other interventions on site and it reflects the harmonious relations between man and nature and zoning regulations (Bafna, 2000). The divine diagram with the vaastu purusa demon inscribed in it makes the people to compulsorily follow it while designing built environment. Vaastu purusha built structure is considered as a symbol of the self and the projection of the self in to the building is done with the help of vaastu purusha mandala (Sinha, 1998). Vaastu purusha, the evil demon inscribed in the divine grid diagram on site guides the different activities to allocate in the plan. In Varikkassery mana, the grid pattern guides the spatial configuration. The marma points kept vacant to allow the energy flow. The connection of different marma points ensures wind flow inside the building to impart climatic comfort.

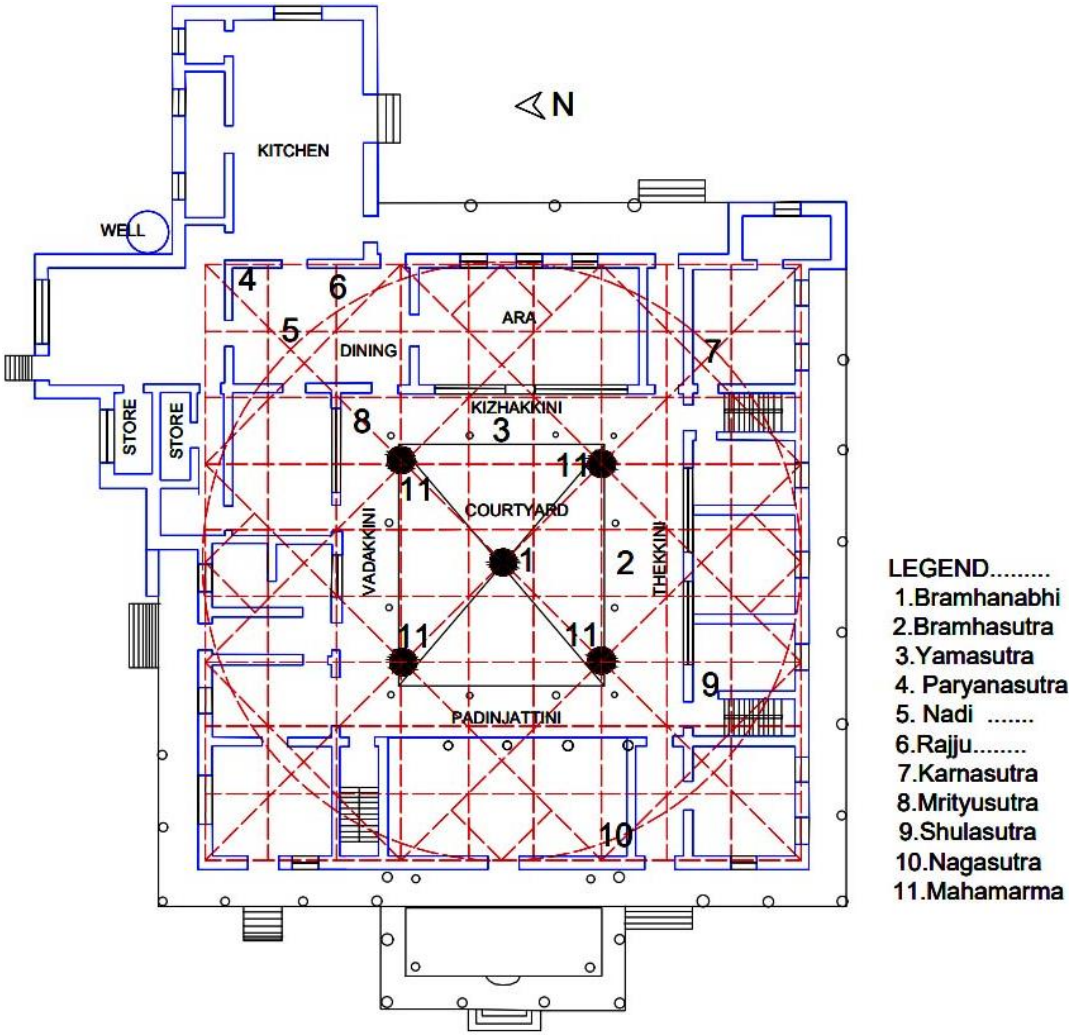


Figure 5. Vaastu purusha mandala showing the marmas (Varikkassery Mana)
Source: Author(s)

5.5. Principle 5- Zoning; Griha vinyasa/ sthana vinyasa

Zoning spaces based on the concepts of marmas and deities positioning in the divine diagram; Vaastu purusha mandala. Zonings of various functional activities are provided in accordance with the deities in Vaastu Purusha Mandala (Danaci, 2015). The symbolic meaning retained without compromising the modern design elements in the current scenario because the design consideration are aligned with the daily rituals and guides the daily activities of the user. The central area is kept open in the built structure as it is considers the naval point of the Vaastu purusha and it establishes a linkage between the house and the Universe.

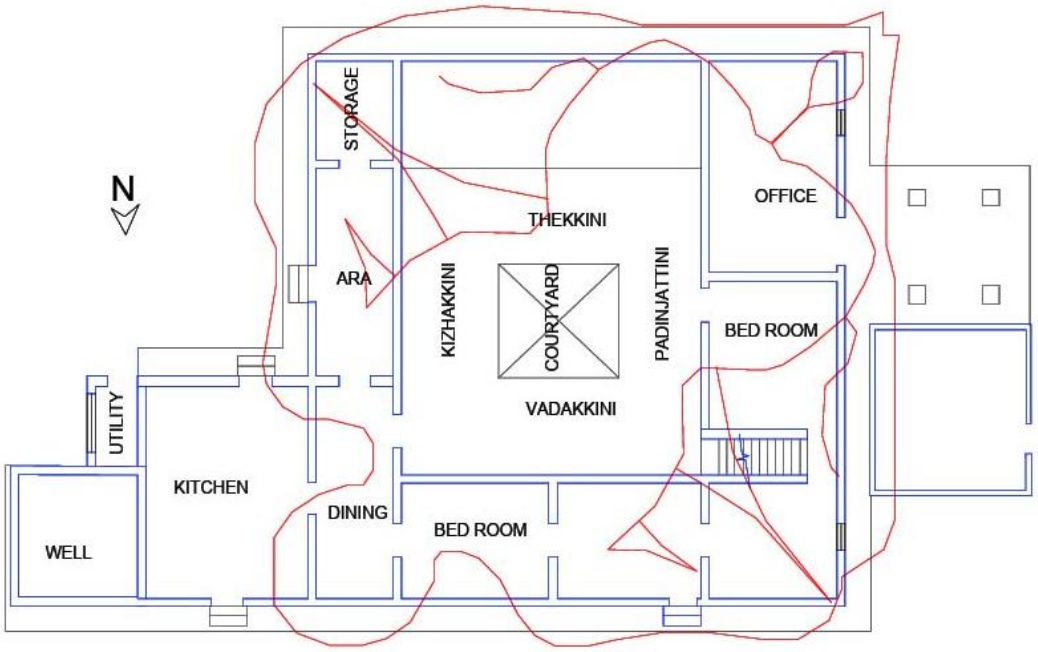


Figure 6. Zoning (Poonthanam Illam)
Source: Author(s)

5.6. Principle 6- Door openings; Dwara sthana

The main door typically deviates from the building's middle axis. The main entrances are from the East direction considered auspicious. Aligned openings in a single row are to be avoided and it is proven to be technically correct and there is an engineering significance of it (Chandra *et al*., 2019). The wind flow to all the spaces in the house ensured by avoiding aligned openings. The deities' names associated with the vaastu purusha diagram administer the positioning of door openings and it is for benefit of climatic comfort inside the house. The placement of doors have cultural and religious importance and including users in this part of the design process can strengthen the bond between the user and the house.

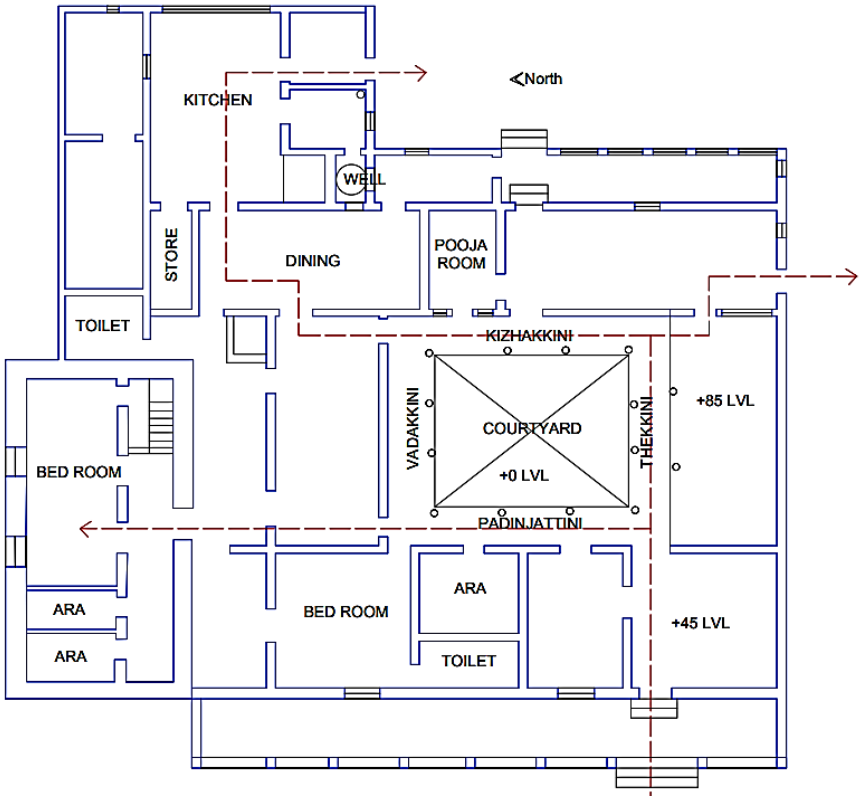


Figure 7. Plan showing door openings (Madambu mana)
Source: Author(s)

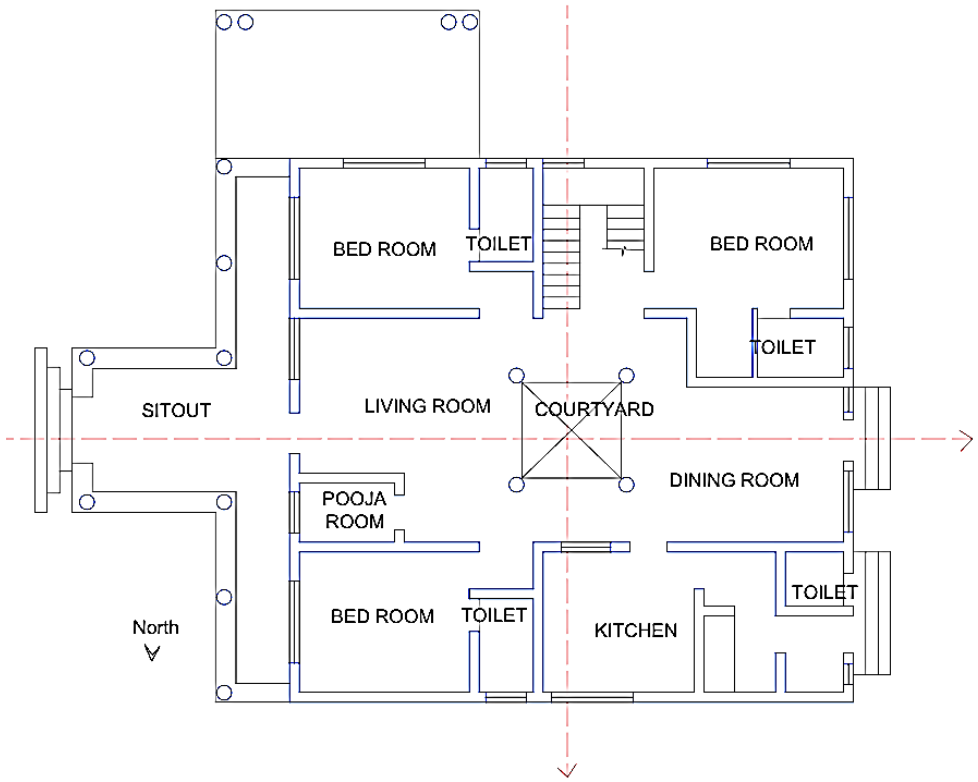
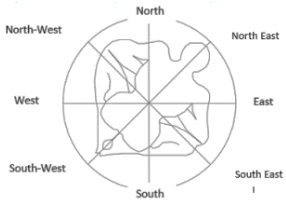


Figure 8. Plan showing door openings (Joshi's residence)
Source: Author(s)

5.7. Principle 7- Proportion of the building; Bhulamba vidhanam

Length to breadth proportion is significant in providing the aesthetics of the building and it is symbolically represents the man. The proportions are adhering to the proportionate measurements derived from the human body and establishes a connection between the divine World with the physical World. There are five generic types of proportioning system as per Manasara and Mayamatam and is as follows; Shantika (1W:1H), Paustika (1W:1 ¼ H), Jayada (1w:1 ½ H), Dhanada (1W:1 ¾ H) and Adbhuta (1W:2H) (Danaci, 2015). In traditional houses, the proportion of the Poomukham is 1W:1H symbolically represents the proportion of the perfect figure of a man as per Vaastu Shastra. In Indian tradition, beauty is considered as Chanda (moon), the structural marvel and its rhythmic disposition is conceptualized like that of a poetry (Patra, 2009). The aesthetics in design considered important and matched with human proportions to enhance the cosmic forces importance in our daily life. The height of the user is considered as a module to derive the proportion of the built structure.

6. Results and Discussions

Principles of Vaastu Shastra	**Traditional building designs**	**Contemporary-traditional building designs**	**Participatory approach**	**Scientific rationality**
Principle 1 *Examination and selection of site; Bhupariksha*	Site location selected based on shape, contour, color, odor, touch of soil and taste	Site selection process is irrelevant as availability of parcel of land is limited.	Involving User in to the selection of site in traditional houses. Strong cultural context establishes with the help of cosmological symbolism	In contemporary designs, soil testing done with scientific method. Traditional methods are irrelevant in the current scenario.
Principle 2 Determining the orientation; Dik nirnaya	Building is oriented to cardinal directions.	Cardinal directions for orientation. 	User is able to orient themselves with the settlement as a whole. Concept of vaastu purusa in design	Cardinal directions for building orientation allows for climatic advantages and ease of use.
Principle 3 Building measurement test; Aayadi gananam,	Dimensions and proportions derived from the physical dimension of the eldest member in the house.	Standard dimensions followed based on the standard codes of practice. Contemporary designs are not as per users ergonomic data.	In traditional houses, user's dimension taken for deriving the built structure dimensions. Active participation of user is involved in the design process.	Scientific reasoning behind the user's human proportions in design are to be further studied.

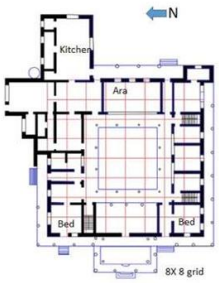
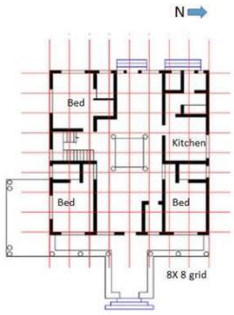
Principle 4 Vaastu purusha mandala; Padavinyasa	Vaastu purusa mandala grid design provides geometry and spatial order in design. 	Vaastu purusa mandala grid system is used for design development. 	The design practice is firmly rooted in Vaastu Purusa symbolism. The user can relate to the forces of the cosmos.	Vaastu purusa mandala acts a structural grid that guides the design.
Principle 5 Zoning; Griha vinyasa/ Sthana vinyasa	Traditional zoning ensures climatic comfort.	Designed space are in accordance with the traditional spatial configuration.	The vaastu purusa mandala's deity allotment and space allocation helps relate the user with the surrounding context.	The design resulted out from traditional zoning minimize the cognitive load.
Principle 6 Door openings; Dwara sthana	Openings are not oriented on the same axis to ensure airflow inside the house.	Openings aligned on the same axis. Resulting in air stagnant spaces in the house.	Deities' position directs the placement of openings in traditional buildings.	Not having aligned openings in a single row accentuates the wind flow (Chandra et al., 2019)
Principle 7 Proportion of the building; Bhulamba vidhanam	Proportion as per Vaastu Shastra adhere to the human scale.	Proportion given based on the designer's way of achieving aesthetics. Proportions given are not adhering to the human scale.	Building proportions practiced in traditional buildings as per user's physical dimension.	Proportion as per the user dimension allows for a human scale built environment.

Table 2. Case study comparative assessment
Source: Author(s)

The Vaastu Shastra principles found to be acts as successive steps in the design process and practice. The principles compulsorily practiced with the help of incorporating the cosmological symbolism and it ensures continuity over time. As shown in Figure 9, the first step in design process is the examination of site and Vaastu Shastra allows the participation of people from the very beginning of building design stage to the final stage of execution of the building on site. The design considerations are evolved keeping the man as the center and interlinking those with the cosmos. The cosmology induced design steps allows the local masons to complete the building design without the help of an expert. The active participation of the user is visible in each step of the design process.

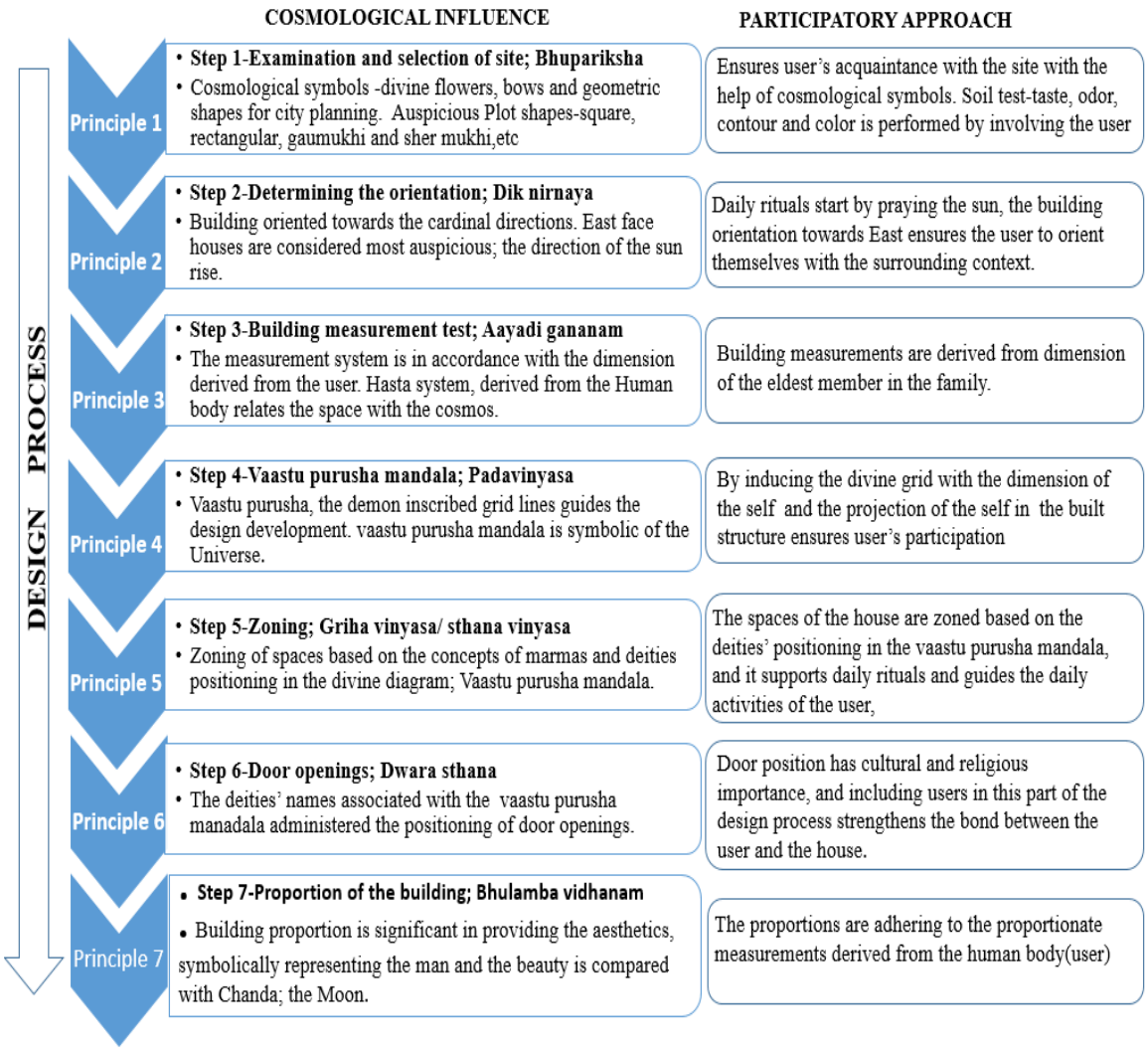


Figure 9. Vaastu Shastra design process and cosmological influence
Source: Author(s)

7. Conclusion

The process involved in Vaastu Shastra science acts as participatory tool in implementing design guidelines by incorporating cosmological influences. Design of a building is not just formed as an effect of cosmogonic acts but an inner psychological process of the user (Sinha, 1998). The principles or the design process induced with cosmological acts leads to the participation of the user and establishes connection between microcosm and macrocosm. Vaastu Shastra principles shows the relevance and flexibility of principles for the changing dynamics without affecting the fundamental ideology (Balasubramanian & Nagan, 2015). The guidelines stipulated by Vaastu Shastra is still in use because of the proper merging of cosmic forces, man and the environment in the design process. Cosmological symbolism holds great power in keeping the building design as per Vaastu Shastra principles reflecting cultural beliefs and the surrounding environment while ensuring dwellers participation. Vaastu-Shastra remains a viable and powerful way to merge science and technology within the context of design to create environments for human beings that are in harmony with nature, cosmic forces and the

universe (Purkar *et al*., 2019). Cosmological symbolism regarded as tool for the compulsory execution of design process and practice. Vaastu Shastra employed both spiritual and physical forces for the creation of built environment. The Vaastu Shastra design processes support the daily rituals and activities of the user thus the continuity of the practice holding the tradition and cultural belief are possible with the necessary changes reflecting the changing life style. The research highlights the discovery of cosmological symbolism induced design process. It is evident that cosmological symbolism induced design process keeps the continuity of the traditional architectural science, but the significance of Vaastu Shastra with its intended meaning and its advantages can be utilized only by exploring the scientific knowledge behind it. Thus, it paves way for future researchers to explore the contemporary application of Vaastu Shastra in line with the traditional belief system along with its scientific reasoning. The study concludes the significance of Vaastu Shastra as a blend of cosmological symbolism and scientific rationale in design. Cosmological symbolism induced design process and its participatory approach contributes to the adaptability of Vaastu Shastra that emphasizes a harmonious integration of space and user, offering valuable insights for designers to create traditional built spaces that resonate with both functional and metaphysical elements.

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