# Traditional Vastu in Nepal - Architectural Design for Joy, Happiness and Pleasure

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#### Introduction

One of the key attributes of the excellent architecture and urbanism of the Malla towns of Kathmandu valley is the traditional residential house. The consistent use of two basic typologies, rectangular streetside house (Pikhāche) and square courtyard house (Chukache) and the harmony and agreement of design and detailing of one house unit with the neighboring ones and their role in forming of street, neighborhood and the town itself is clearly not a chance occurrence but a result of a deliberate regulated design and planning practice. Experts have also observed that such classical achievements in practice would presuppose the development of "a long and glorious tradition of teaching and learning about art and science of architecture (Vāstukalā and Vāstushāstra) in Nepal in the past" (Vaidya, 1985). A recently published monograph of manuscripts on architecture in the collection of National Archives (GON, 2069 BS) indeed shows how widely such knowledge was learned and practiced. They also tell us which classical sources were popular. This paper aims to highlight how the ancient Vāstushāstra knowledge was applied to traditional residential architecture in the late Malla period to make living pleasurable, happy and joyous. It will particularly look at the gains in physical, psychological and spiritual environments that was sought through design using Vastushastra prescribed directionality, orientation and arrangement of entrances, blocks or rooms in traditional houses. The details are largely based on study (Tiwari, 2012) of Vāstushāstra manuscript titled "Griha Nirmana Vidhi", manuscript numbered 1-654 in Reel number A443/41 of National Archives. Some contents and intents of classical Vāstushāstra are discussed in order that we may see some striking parallels between Vāstushāstra and Feng Sui in fundamental level.

# Vāstushāstra and Vāstu

Vāstushāstra is the ancient Hindu knowledge system of architectural creation and with all of planning, design and construction of anything to be built, whether a house or a temple, a cot or a column, or, a palanquin or a chariot. It systematizes architectural creation as design activity placed in space, time and force fields of heavenly bodies and aiming to provide a living environment for health, peace and oneness with the spirit of the universe.

This body of knowledge is available to us from two heritage sources - (a) ancient documents and literature on Vāstushāstra and (b) the traditional buildings that have survived past historical times and come down to us as heritage. In this study we look at the classical Vāstushāstra literature coming out of India as well as architecture related manuscripts as available in the collections of the National Archives of Nepal (literature copied and adapted from classics popular in Nepal at historical times) and how the knowledge was used in the traditional residential architecture of Kathmandu Valley. Studies so far have generally been limited to application of Vāstushāstra in Temples (Tiwari, 2009).

It can be learnt from classical literatures such as Mānasāra and Mayamata that the term Vāstu basically means a dwelling of the mortals and the immortals built on the earth, the base plane of human existence. The earth itself is also Vāstu as it is made up of 'vastu' (a concretely real object). Vastu is a

residue, a real material, leftover by Lord Vishwokarmā as he created the universe and this is what is used to built architecture by the mortals. Architecture/the body of dwellings therefore gets its form from the material earth while it is erected in the underlying stratum of existence. In other words, 'vastu' supported on 'vastu' gets the architecture made. Earth is, therefore, both the environment and supporting site, *bhuta*, and also the form giving material, *tattwa* for architecture.

# Vāstu-purusha-mandala

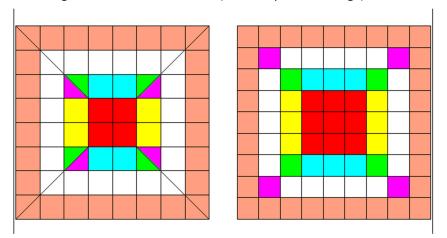
The philosophical assumption of Vāstushāstra is that only the perfect building is fit for dwelling and architecture must be created perfectly or as close to perfect as humanly possible. As enabling traits, Vāstushāstra outlines many characteristics for a good architect, such as a person of quality, well versed in all sciences, physically perfect, just, compassionate, learned in mathematics, well read in ancient authors, knows the whole country, generous, free from envy, etc. It professes that only perfect personalities can make perfect creation and presents the superior character of Biswokarmā, the creator of the universe, as the role model. Even his divine perfection is highlighted fourfold by giving him four faces: his east face was the progenitor of the universe, south face the knower of the universe, west face is the creator of the universe and his north face as the resident of the universe. Vāstushāstra takes the universe as the model of perfect architectural creation and presents the Hindu understanding of the universe as the template for perfect Vāstu. Called Vāstu-purusha-mandala, this image of the universe, is presented as a universal template for creation of perfect architecture in all its compositional aspects such as site layout (pada vinyās), plan (tala chanda), measure and proportion (mānalaxyana), elevation (urdhwa chanda), orientation (sadvarga) and decoration (samchada). It is as applicable to the architecture of houses as it is for the palaces or the temples, the earthly sanctums for gods.

Earth, situated in the field of Sun, Moon and the sky and its bodies with light, is represented as a square as it gets bounded and sized up by the concepts of time and space and becomes Vāstu, the extent of ordered space. For the same reason, the universe is also taken as a square field. Vāstu-purusha-mandala which images the universe as ortho-centric, would thus also be a square. As many as 32 such diagrams are prescribed in the Vāstushāstra- each describing the universe in progressive level of details. The series of diagrams are basically derived by diving the side of the square progressively into two, three, four and so on to thirty parts resulting into squares with grids having one, four, nine, sixteen, ..., sixty four, eighty one, ..., nine hundred, nine hundred sixty one and one thousand twenty four sub-squares. The most commonly used Vāstu-purusha-mandalas were those with sixty four divisions and eighty one divisions.

# Vāstu, Nature and Nature of Man

The backbone of Vāstushāstra knowledge is the Vāstu-purusha-mandala and its imaging of universe. The Hindu eye and mind saw the universe in three fields of expression (*rupa*) and in their sum total. These three concurrent manifestations of universe are - '*desharupa*' (in the shape of earth), '*kalarupa*' (in the shape of time) and '*ubhayarupa*' (in the shape of the sky of heavenly bodies). The three expressions of this NATURE give rise to the three environments that support proper living in a dwelling. While '*deshrupa*' gives rise to the physical environment in association with the sun, '*kalarupa*' gives rise to the spiritual environment with the eclipses (of both sun and moon) and '*ubhayarupa*' makes the psychological environment with the moon moving in the field of constellations and other heavenly

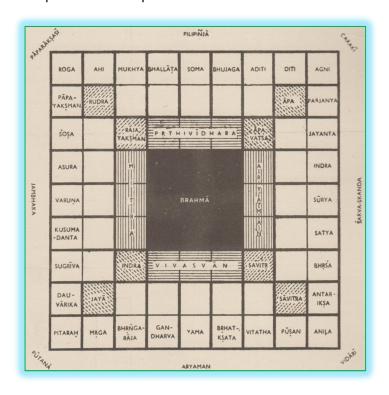
bodies in the sky. It also saw man as a biological being (with its body and five senses of sight, sound, smell, taste and touch), a psychological being (with its mind and its five sheaths of time, scale, knowledge, intent and attachment) and a spiritual being (with its amsa of the ultimate, the static and



the motive principals). As rule based architecture arising out of such understanding of both Man and Nature, house designed on Vāstushātra principles provides the resident a conscious interactive link with spirituality.

Figure 1: Vāstu-purusha-mandala, Manduka (left) and Paramasāyika (right)

Combining these understandings of the dweller and the dwelling environment, the compositional template of Vāstu-purusa-mandala sets the task of architectural design not only at the level of



performances responding to the biological man and the physical environment, but also responding to the psychological and spiritual man and the corresponding environments.

It has been said that architecture is measured in space and time and its body gets its form from the material, earth. The three environments of earth, time and space and their representation is made in the three concentric squares of the Vāstu-purusha-mandala, which is presented as a group of gods that occupy the various sub-squares (pada). Forty five different gods of the universe are worshipped in the Vāstu-purushamandala in these three circuits as shown in the figure 2.

Figure 2 Vāstu-purusha-mandala with the 45 Devatas

32 Pada Devatas in the outermost ring of squares - 28 of the 32 squares in the outermost ring of the Vāstu-purusha-mandala show the locations, directions and extents of the twenty eight asterisms, Naxyatra that populate the periphery of the ortho-centric universe in Hindu astronomy/astrology and

the gods/spirits/regents thereof are named accordingly. The four squares that close the 'cardinal' axes are places marking the east, west, north and south as defined by the daily movement of the Sun and are named after their corresponding regents (Surya, Yama, Varuna and Soma). These four outer sub-squares that lie in the cardinal directions and the other four sub-squares in corner directions represent directionality in terms of the innermost ring also and show overlapping multiple assignments. In general, this circuit appears to respond to psychological parameters in design and relates to happiness (mental peace and like condition of elation).

12 Adityas in the middle ring of squares - The spirits/gods named in the middle ring of sub-squares are Adityas, who represent the twelve points in time, when particular eclipses of utmost significance have occurred or will occur in the universe of cyclical time. The central circuit is therefore a spatial representation of the points of renewal in the Lunar-Solar time that make the universe of time. As the Sun and the Moon (the luminous bodies or *jyotish*) move in their particular rhythms in time and space, the conditions and possibilities of living in spiritual environment and attaining oneness with the essence of the universe wane and wax as ruled by the Adityas. In general, this circuit appears to respond to spiritual parameters in design and relates to joy (spiritual attainment and condition of ultimate elation).

1 Brahma (in the center or the group of central squares) - The very center of the Vāstu-purusha-mandala is Brahmasthan, the absolute, un-built point named after Brahma. This represents wholeness of Nature and the ultimate center of peace and silence. Although the extent of particular Vāstu may be shown by the sum of the designated sub-squares making the innermost bunch, it is the sum total of Universe, Earth, Site or what exists materially. It forms the physical base for architectural design and needs to be assessed in general as responding to the physical environmental parameters taking the Sun as the general causative of livability on Earth. To quote a Vāstu text, "the Earth becomes the abode of all beings because of the Sun" (Manasara 3.14). The central group of sub-squares also represents the material world of Earth (in the middle) and the other four elemental and environmental entities, the *tattwa* and the *bhuta* of Water (in the north-east), Fire (in the south-east), Sky (in the south-west) and Air (in the north-east). In general, this circuit appears to respond to physical parameters in design and relates to health and pleasure (bodily satiation and elated condition of senses).

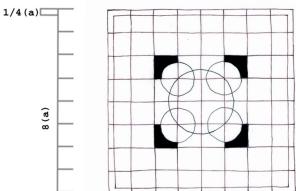
# How far does Vāstushāstra go in History of Nepal?

It is generally believed that the classical Hindu literature and the associated sciences of the state were brought to Nepal by the Lichchhavi rulers arriving from Vaisali in the closing quarter of the first century AD. Lichchhavi inscriptions appearing from as early as fifth century AD state emphatically that their management of state, economy and society was guided by the Hindu Classical knowledge system, which would have included the Vāstushāstra also. They are also accredited of importing, imposing and popularizing the division of the Nepalese society into a society with four *varna* or castes and thus may have used the standard house forms prescribed for each caste group. Traces of town planning surviving from towns undertaken by the Lichchhavis such as Daxinkoligram in Kathmandu, Maneswora in Hadigaun and Devapattana in Deupatan evidence the use of the Vāstu patterns prescribed in classical texts like Arthashāstra. The measure and proportioning of the Siva Linga Āvarana temple at Rājarājeswori, datable to sixth century, show clearly the use of Manduka Vāstu-purusha-mandala.

On top of all this, the measure and proportioning of plans of the oldest archeological layers and foundation and floor remains of a building exposed so far, potentially of the temple of Valashokshidevakula (Tiwari, 2001) and that goes as far back as second century BC, some three hundred years before the arrival of the Lichchhavis and more than eight hundred years before the Lichchhavi inscribed statements attesting use of the Hindu Classical knowledge systems, hint that a similar architectural knowledge base was already in use. The Kirat population of Kathmandu valley appear to have had practiced architecture like as in the Vāstushāstra and had access to a similar knowledge system. This period is close to Han period in China, when I Ching and Feng Sui practices are said to have been

ggavakshya

Guardians of space



canonized.

Vāstushāstra was orally transmitted in ancient times and its compilation in written text form is believed to have taken place only about sixth century AD. Earliest Nepalese manuscript copies of classical literature, rituals, practices prescriptions start appearing about tenth century AD. The earliest Vastu literature in the collection of National Archives is 'Pratisthatantra' that is dated to 1159 AD. Divided into 94 chapters, this Saiva Tantra document runs into 245 densely written folios and dealing with rituals of consecration, design, measurement, proportion and construction of linga, towns and villages, temples, pedestals, palaces, residences and associated topics such as site selection, soil study, orientation, positioning of gates, reconstruction etc. The document notes the auspicious nature of the Vāstu-purusha-mandalas of 81 and 64 squares (Folio 137 Recto). The key source document for this paper, "Griha Nirman Vidhi", dated to 1692 AD in late Malla period, appears related to Chapter 43 titled 'Grihavāstu patala' in 'Pratisthātantra'.

Figure 3: The Vāstu-purusha-mandala of Rājarājeswori

# Design of residential building in the Vastushastra of late Malla period

Of three circuits of earth, time and sky demanding consideration from the perspective of Vāstu, time has been the most complex to incorporate. The present document gives no detail of the application of time in architecture and almost avoids it by stating, 'the formula of Time is known to the Guru, seek application of such standard measures from them' (Folio 19 Recto). This absence of 'sadvarga', the rules of remainder that govern the orientation of a building in time and space, in 'Griha Nirman Vidhi' possibly indicate that such rules were not applied in the design of residential buildings and explains the organic alignment of streets and the carefree orientation of street side houses in that period. The narrative

texts (Folio 19 Recto Line 5 – Folio 20 Recto Line 1) and the 99 plans of houses (Folio 26 to 52) instead focus on the rules of locating entrance openings and building blocks in the site and its consequences on the Family, Health, Wealth, Learning, Peace and Religious Merit of the resident. Although the functional association of the spaces in any given direction has not been stated in this document, it appears to follow the 'rule of sixteen houses' as prescribed in Brihatsamhitā, which may be diagrammatically likened to the Upapitha ground plan of 25 plots and the Vāstu gods assigned to the outer periphery there in. The fortune or misfortune making consequences of the house type with chosen blocks, their orientation vis-a-vis cardinal and corner directions or location of entrance ways into the plot tallies to a large extent with of powers and character of Vāstu gods resident in those directions, time and spaces. This combination plot of functional association and Vāstu gods of fortune and opportunities are shown below:

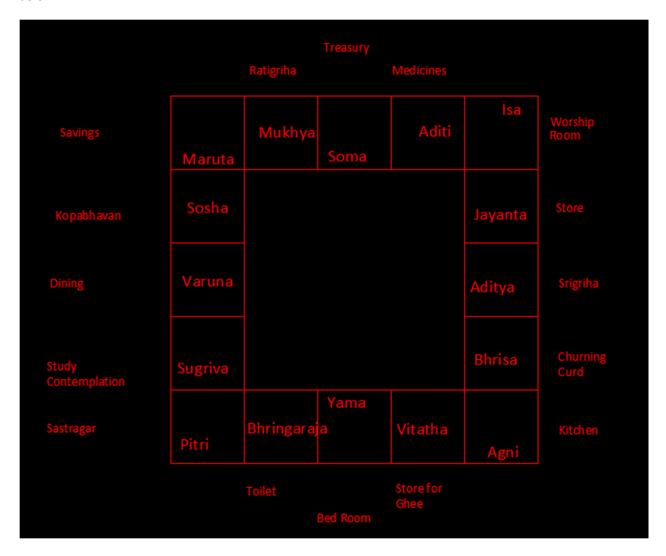


Figure 4: Residential Functions and Vāstu Gods of the Spaces and Time

Vāstushāstra prescribes fortune promoting houses based on appropriate combination of directionality, location, measure and proportion of spaces generated by the triple planes of consciousness i.e. of material, space and time making. Both time and space characteristics of architecture become complex

as both sun and moon have multiple motions e.g. while the sun has diurnal motion from east to west and half-yearly move between southern and northern skies, it annually travels through the dial of zodiac. Likewise, the moon has its phases generating moves, vacillating tilt and its annual travels through the dial of constellations. Vāstushāstra's recommendation on orientation of a house to such complex and changing force field of lighted bodies in the sky can seem confusing and contradictory at times again because of the prioritizing rules also. The following principles are specifically outlined in the document under study:

If there should be no block in the north-west corner, such a house will beget riches and property. Should there be the building there, the residents will be perennially afflicted by illnesses. If there is no building on the west, it will be afflicted by drying of wells. Residence with a west block will be cool, the resident being always studious and will amass riches and property. The east entrance increases the artistic qualities of men, whereas the north entrance begets riches. A passage from the west will cause loss of riches and south entrance will bring fear of death. The house with no building block on the south is called Yamadvāra and will reduce length of life, harm lineage and one should not stay even a night.

It is notable that not having the north-west block or not having the north block and taking entrance from there both result in gain of riches. This seems to follow the prescribed function of the north-west block (wealth store) and that of the north block (treasury). It would appear that not having a block and creating access in the space results in accretion of fortunes commensurate with the functions prescribed! At least this seems to be the case of NW and N blocks. In the third case of not having a west block (whose function is stated as a space for dining room), the consequences of dryness appears related to Varuna (also in other streams of thought, Bhrisa and Nāga) and loss of riches if the gap is used for entrance is perhaps related to its opposite square assigned to Āditya/Srigriha and thus wealth as well as learning. The north square is the abode of 'Kubera' in the *mandala* and thus explains the gain of riches, which Kubera amasses and symbolizes too. Similarly the east and south entrances stated to respectively augment artistic qualities or cause loss of life are spaces for the function of Srigriha and sleeping as per Brihatsamhita and assigned to the Sun and Yama respectively in Upapitha Vastu square of 25 sub-squares.

The above discussions would seem to suggest that the consequences of building as well as omitting house blocks in site layout can be read through considering the prescribed function of spaces (Brihatsamhitā) and the symbolism and characteristics of the 'pada devata' of the Vāstu-purushamandala as shown in figure 2.

It seems that the lack of building in the corners and the axes are full of consequences that are related to the prescribed functions or the character of the resident deity of the directions of space. Using the gap for the entrance heighten the consequences, whether good or bad. It is notable and the consequences of having or lack of blocks in only one corner position (NW) and all four axial positions and the use of the gap in these axes as passage has been considered in the main texts. The 99 pattern plans shown in Folio 26 to 52 however extend the permutation and combinations to all the sixteen blocks.

# **Patterns and House Design**

The manuscript gives 99 house design options and all the patterns have been provided with a statement of consequences of residing in such houses. This appears like elaboration of the theme of layout of housing block in the site and the consequences as briefly presented in Folio 19 Verso and discussed above. Here each of the combination is graphically shown and the illustrations span from Folio 26 to 52. It is notable that quite a few of the patterns are not recommended and are said to lead to deadly, harmful or unpleasant consequences on the life of the residents. The names given to many of the types also hint at the consequences, fortunate or otherwise. Since the names given for many key patterns are in Sanskrit or derived from Sanskrit, the origin of these patterns from earlier classical traditions is clearly indicated. The stanzas from Brihatsamhitā outlines the use of spaces as the "rule of the sixteen houses":

It is said that east house is Srigriha (house of Laxmi, treasure room?), South-east is Mahanasa (kitchen). South is sleeping house (*shayana griha*), Nairitya (southwest) is Sastrāgār or Ayudhasrayam, dining room on west, northwest house is for wealth store (*dhanāgār* or *dhanasanchayam*). In north house locate *dravyasamsthān* (treasure?), in northeast is *devatāgriha* (worship room), between east and south-east is *griha* for churning curd and house to store ghee between SE and S. Between S and SW is toilet (*purishatyāga mandira*) and between SW and west is svādhyāyagriha (study). Between west and NW is *kopabhavan/rodana* (crying room?), between NW and north is Ratigriha (*kāmopabhoga shamanam*). Between north and NE is treatment room (*chikitsā/aushad griha*), between NE and east is all purpose store.

First, considering the blocks in the cardinal axes, the east, south, west and north blocks, for which the appropriate functions as per Brihatsamhita is respectively Srigriha (house of Sri, riches, treasures and also fame), sleeping house, dining and 'dravyasamsthān' (the corporate place of riches, where riches are made). The 'pada devata' of the corresponding squares are respectively Surya (sun and fame), Yama (death), Varuna (rain) and Kubera (riches). Again considering the corner axes, the north-east, south-east, south-west and north-west blocks, for which the appropriate functions as per Brihatsamhita is respectively Devatāgriham (worship room), Mahanasa (kitchen), Sastragar (where arms are kept) and dhanagar (store for wealth). The pada devata of the corresponding squares are respectively Isa, Agni, Pitri and Roga.





Figure 5: Basic Patterns of House Design - Pattern 4 gives Health and Riches.

Of the four possibility of laying out a house in cardinal axes, only one with the block on south is auspicious and is named Hiranyamukha (golden orientation to the north). Clearly this blocks Yama and provides a good space for sleeping and the consequences are increases of family and riches. All the other three are not good as the house with west block leads to loss of riches (facing west and named

Paschimamukha), north house will cause death of owner (as it faces Yama and is called Yamamukha), east house will cause death of children (as it places its back to sun and is called Pretamukha).

Pattern number 5 has two blocks, on north and on west and is named Yamasurya and brings the consequence of death; in this case we can note the open south and infer that Yama is a strong actor and Surya can give no respite in matters of death! Likewise Pattern 6, with blocks on all three sides with





south vacant is named Churi and causes loss of riches and bereavement from wife. Likewise, Pattern 7 brings death of son.

Figure 6: Pattern 5 and 6 with Open South and Pattern 7 with U-shape open on West- Consequence of Death

Pattern number 8, which has three blocks with only the north vacant, this is named Hiranya and showers every property and happiness. U-shaped houses with openings in east (Sukstra) and north are auspicious but with openings in south and west, they bring severe consequences like death and loss of riches. Pattern 10, which is a fully built rectangular courtyard house, is named Chuchako and is most



auspicious of all the patterns so far with results of increment of long life, riches and family!

Figure 7: Courtyard plan gives Long Life, Riches and Children



Likewise, Pattern 11, which has two blocks with east and north open, is called Siddhartha and brings the fruit of riches and property. The reverse of this, Pattern 12, with south and west open is inauspicious and brings the wrath of state.

Figure 8: Keeping North and East open Brings Riches and Prosperity

Pattern 16, which has all the seven houses in the axes and corners except the North-east, the house named Rudrāksa, is auspicious and the owner becomes learned earning respects all round. Both the name Rudrāksa (meaning the eye of Siva) and the consequence of learning and fame is interesting. Leaving out the north-east corner, where the head of Vāstu/the Isa is located in the Vāstu-purushamandala, appears to be the cause of auspiciousness and also the prospect of being learned. Keeping the Isa square un-built is also believed to catch the energies from the heavens. All the other three, 'seven houses' configured with vacant SE, SW or NW are inauspicious. Vacated space for Agni, Pitri and Roga are obviously not rewarding for humans. Vacating the Pitri corner is said to cause loss of cosmic energies. Pattern 20, which has six houses and vacant axes blocks on north and south is inauspicious. With both the space for Yama and Kubera open, this leads to loss of wealth and unhappiness; this



suggests that the effect of Yama opening is moderated by leaving out the north axes block also as death appears avoided. Pattern 21, which has all the blocks except the four 'khava' (blocks left of axes) is inauspicious and results in tension and loss of riches, while Pattern 23, which has all the 'java' (blocks right of axes)vacant, brings long life, riches and wife. This goodness may be related to the deities of these spaces which are Jayanta, Vitatha, Sugriva and Mukhya.

Figure 9: Pattern 16 with only NE plot Vacant lets Cosmic Energies in.

If both the east and west sides have 'java' (blocks right of axes) blocks vacant and two blocks each ('khava' and axes), the resulting pattern 22, is auspicious with no sorrows, good behavior and possesses riches and sons!





Figure 10: Patterns 22 and 23 with 'Java' blocks Vacant are Auspicious, While all Blank 'Khava' makes #21 inauspicious.

Pattern 25 with a block in the center of the site is named Udako, it will bring the whole world under the power of the resident! This is kind of strange as it is built in the space of Brahma and so may refer to occult power of resident. Building of both north-east and south-west or just south-west along with four



axes block will make the house auspicious (Pattern 29 and 30). Pattern 31 with all the eight blocks in eight directions is named Sarvārtha and is auspicious for learning and knowledge. Pattern 32 with all the four corner blocks and a south axis block is named Suksyantu and is auspicious bringing happiness, property and qualifications.

Figure 11: Auspicious Patterns Sarvārtha and Sukshyantu.

Auspicious patterns appear to relate to building on south axes (closing Yama), NE left open for Isa or built for learning and knowledge. Closing SW brings good tidings, riches etc. If all the axes squares are vacant and all the corners built, Pattern 35, is most auspicious. Pattern 40 which has all the blocks built around the court except the north-west and the north-east is as auspicious. It will bring riches, sons and will be loved by the world. Pattern 39 with all the blocks built around the courtyard except central

square in east is named Udaya and is auspicious. Keeping east open, north-east and north-west open usher goodness into the house.

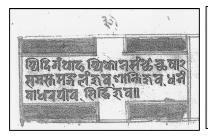




Figure 12: Auspicious patterns 37, 39 and 40.

Patterns 41, 42 and 43 are presented as special large houses with auspicious results. Pattern 43 has three houses in the east and three houses in the west tightly built with sides(joined together), there is one house each in north and south tightly built with sides and also the four corners built and joined together, it will bring blessings, prosperity, no pains, riches and will learn the sciences! Pattern 42 with just the two houses in the north and the south and east and west side similar to Pattern 43 is named



Bhadra and auspicious. Likewise, Pattern 41 with similar building all around but without the four corners built is also auspicious.

Pattern 49 with one block each in south and south-west, its very auspicious and is named Dharma. It brings long life, riches, sons and no diseases. Pattern 53 which is a courtyard house with all the sixteen blocks and is a welcome place for mother, bringing wealth, land, wheat and all wished for things!

Figure 13: Mother of all Houses #53.



Pattern 58 with 14 blocks in swastika pattern is auspicious. East entrance gives good results as in Pattern 70. Pattern 83, 85, 89 and 90 also make auspicious houses. Pattern 99, which has all the corners and the axes blocks built as and all the left blocks are also tightly built, is auspicious and will bring riches and family.

Figure 14: All Courtyard with other Symmetrical Combinations are Good.

Health, long life, begetting sons and family, wealth, learning, fame and peace of mind are some of the good consequences of appropriate use of Vāstu. Likewise, inappropriate combination of blocks (4 each of axial, corners, *java* and *khava* making a 16 block conceptual house), their location and orientation invites death, disease, prolonged ill health, anger, loss of peace, loss of riches and like conditions. Since no 'sadavarga' orientations have been detailed, it seems to have offered a option for dense development with no cardinally related patterns for street. It may also be that the Tantric practice of taking east as the direction in front was used in architecture too.

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