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# RELIGIOUS

RELIGIOUS

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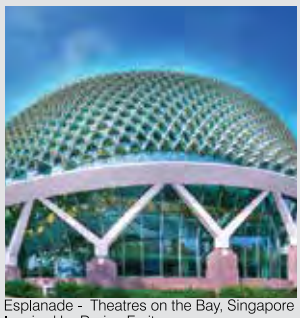
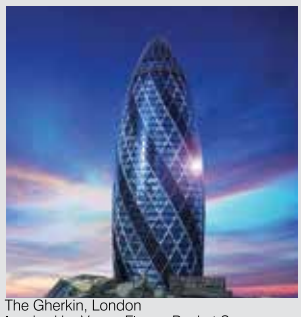
RELIGIOUS

# Biomimicry

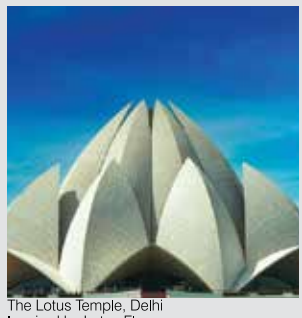
## Innovation inspired by nature



Esplanade - Theatres on the Bay, Singapore
Inspired by Durian Fruit.



The Gherkin, London
Inspired by Venus Flower Basket Sponge.



The Lotus Temple, Delhi
Inspired by Lotus Flower.

National Stadium, Beijing
Inspired by Bird's Nest.

Landscape of Gardens, Singapore
Inspired by Baobab Tree.

Eiffel Tower, Paris
Inspired by Femur Bone.

Turning Torso, Malmö, Sweden
Inspired by Human Spine.

International Airport, Mumbai
Inspired by Peacock Feathers.

Arc de Triomphe Spiral Staircase, Paris
Inspired by Conch Shell.

Taipei 101 Tower, Taiwan
Inspired by Bamboo Plant.

Eden Project, Cornwall, UK
Inspired by Soap Bubbles.

Helix Bridge, Singapore
Inspired by DNA Molecule.

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# EDITOR'S NOTE

Traditionally, Indian Architecture reflects its Culture, History and Religion. The history of architecture is based more on religious buildings, because in the past, sacred buildings like a temple, a church or a mosque were the most expressive, the most permanent and the most influential buildings in any community.

The theme for the December issue is Religion.

We are featuring an article on temple architecture by Ar. Vinod Kumar, a design feature of a church from Ar.Dean D'Cruz and a mosque restoration project by Ar. Benny Kuriakose.

Ar.Sarath is in Dialogue with Ar. Nils Fischer.

We continue to carry our regular columns/ features as well.

The Diminishing demand for Architectural Profession

A concern being felt is that demand for the field of architecture has been declining in the past few years. Many architectural schools/colleges have been shut down due to a lack of demand for the sector. Low pay scales for architects seeking employment appear to be one of the reasons for this diminishing demand. Another reason could be the fallout due to the lack of dedicated posts in government departments exclusively for Architects.

We think that IIA and COA should come forward with confidence-building measures for the promotion of the profession. We would like to hear from our members in this regard.

We wish all our readers a very Happy New Year.

Warm Regards
**Ar. Lalichan Zacharias**
Editor



## EDITORIAL TEAM

# PRESIDENT'S MESSAGE

Dear Members,

Greetings!

Wish you all a very Happy New Year 2023.

In the year that has gone by, we have witnessed and participated in a number of programs organized and hosted by the various Chapters and Centres. It is quite refreshing to see the passionate work put in by the concerned chairpersons, convenors and organizing teams in enhancing membership experience and service to IIA in team building with leadership skills.

The year 2022 was unique. We had all the National events of IIA NATCON, IIA Awards, IIAPL & YAF, Regional Conferences and many chapter conferences hosted by Chapters and Centres. Each one of these efforts is highly appreciated.

The recently concluded Eastern Regional Conference was very well organized, thanks to the efforts of Chairperson Ar. Rajkunwar Nayak, Vice Chairperson, Ar. Swapna Dutta Mohanty and the Convenor Ar. Bibhuti Bhusana Mohapatra. The programme, presentations, culturals and hospitality were very well appreciated by all those present.

As the new year dawns, it is pertinent that each one of us rededicates ourselves to practice our profession with diligence and utmost devotion to strengthen our commitment to service to be exemplary.

Some schools of Architecture have very interesting and innovative ways of sensitizing the students about the practical aspects of the curriculum giving them a better understanding of the subjects. This will go a long way in making the students confident about approaching the reality in future. Such efforts should be supported and encouraged by all of us.

We have to religiously follow the best practices which keep evolving and changing all the time keeping in mind the ecosystem, climate and resources.

With best wishes,

**Ar. C. R. Raju**
**President, IIA**

**Ar. C.R. Raju**
President, IIA

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HAPPY NEW YEAR
2023

THEME

# RELIGIOUS PLACES – THE MYSTIQUE OF BUILT STRUCTURES

As humans, we strive for Joy and Celebrations and the best way to express that Joy is to Celebrate it with your closest and most revered ones.

And the first building we think of, to express that Joy is a Religious place. Be it a wedding, birth or admission, or a business gain whatever the occasion, we consider it a duty to share our Joy with the divine housed in that enclosure.

So have you ever thought about what happens when we enter a holy place? Where so much Joy is left in abundance within its threshold. The only built structure through the process of Architecture to gain so much positivity.

Think about it, we have only positive thoughts when we enter, as we leave our hatred, jealousy, evil, conniving, selfish self at the doorstep at the threshold. It is that threshold to which we bow and touch our forehead and look up with great positivity with folded hands to the larger powers residing there. In doing so we also leave a part of our positive energy within the structure. This positive energy accumulates to such an extent that we can feel it when we sit quietly for a while. The reason why most religious places become famous for granting wishes and making you feel energetic and healthy.

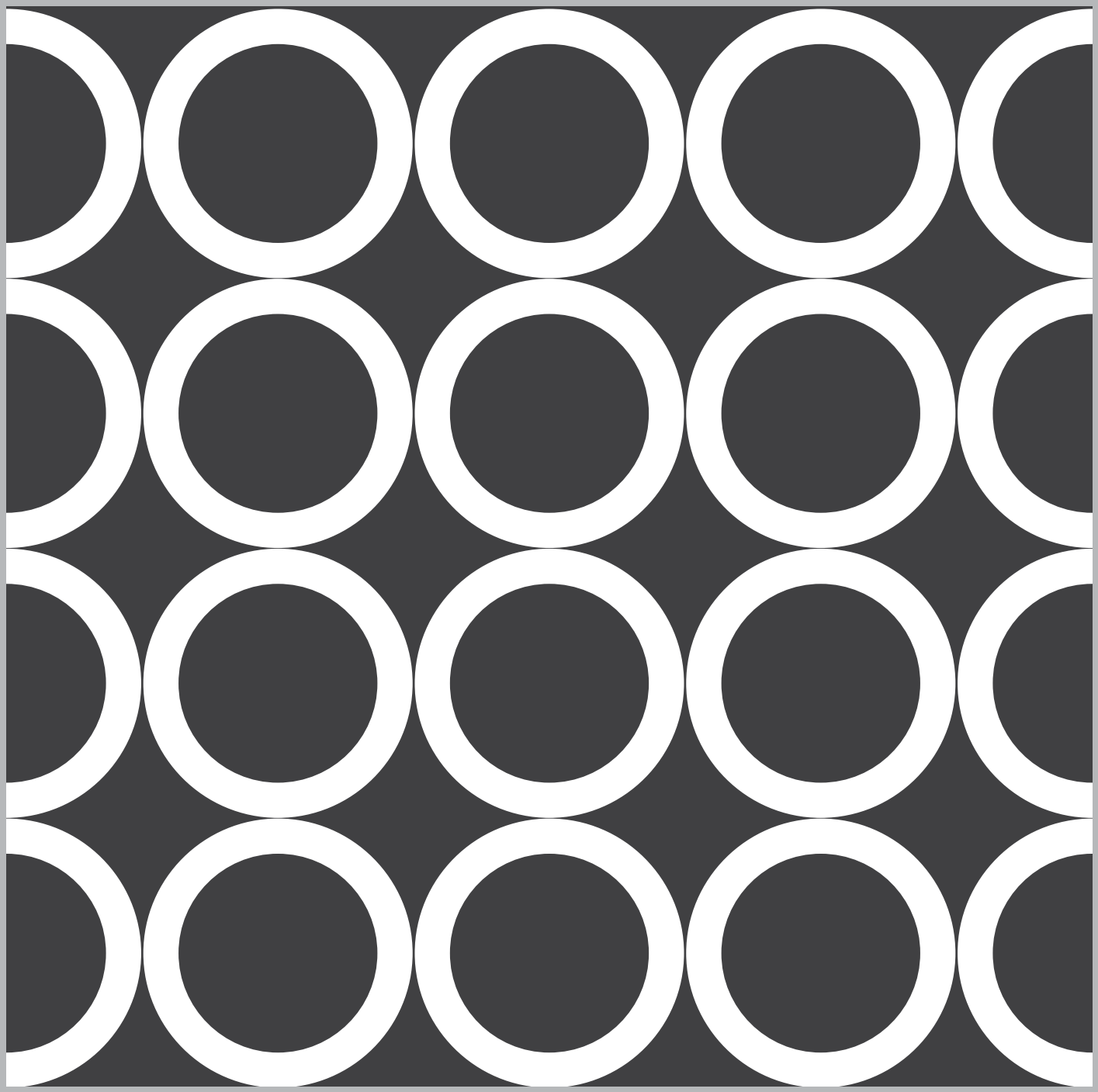
To understand this we must visualize ourselves as drained-out mobile batteries in the noise of this world and these religious places serve as wireless chargers which rejuvenate you silently from within the minute you cross the threshold. So when the less fortunate absorb that excess energy, it's equivalent to being granted a blessing. Those of my generation will remember that holidays meant traveling to a religious place for a few days. And believe me, it was fun.

But these are intangibles that work on pure faith. And it is faith that decides the Architectural design and proportions of the Religious place. Every religion has its unique Architectural vocabulary as building elements which helps us to identify it from afar. One can make out a Gurudwara from a Temple or a Mosque from a Church without having to read a signboard. For centuries these places have been developed based on worship style and ceremonies.

Temples, where idols are placed, would face either the morning sun or evening sun depending on the lifestyle of that village reflecting the criteria of orientation. A mosque will always be found with an East Entrance, so that the prayer wall can be on the west, towards the Kabba (house of Allah) in Mecca. The Gurudwara (Door to Guru) is the only religious building in the world where a book (Guru Granth Sahib) is placed on a throne and worshiped. After being recited from morning to evening it is placed to rest (Sukhasan) in a separate sacred place. The plan of the Church is based on a cross that Jesus Christ was made to carry before salvation. The older churches have been oriented with the head of the cross-facing Jerusalem which is to the west in India. Many faiths like Zoroastrian, Jainism and Buddhism faiths do not believe in a physical or static god therefore they have Monasteries signifying a different typology in religious structures in the world.

We as architects have to be equipped with the basic ethos of religion and religious beliefs before, we start the architectural design process of the evolution of the built form. It is sacred and encompasses a wide range of sentiments that we all revere. This issue will be featuring some interesting case studies and articles which will touch on the aspects mentioned above. Do understand that designing a religious place is not a one-man job as it involves the whole community and its significant characteristics linked to different eras and socio-cultural identities in religious fabric .in my view it's one of the toughest challenging design jobs you can get to do.

**Ar. Mukul Goyal**



# RESEARCH

**Genesis and Evolution of Architecture for Rituals in Jainism**
*Dhwani Wala, Dr. Shilpa Sharma*

●

**Significance and forms of Samadhi Mandirs in the Sacredscape of the Lord Vitthala, Pandharpur**
*Dr. Vaishali Prasad Latkar, Dr. Abhijit Natu*

# GENESIS AND EVOLUTION OF ARCHITECTURE FOR RITUALS IN JAINISM

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**Figure 1:** The twenty four tirthankars of Jainism
*(Source: Haraniya, 2017)*

***ABSTRACT :***
*Jainism is one of the most ancient religions in India proselytized by its prophets known as tirthankars. Mahavir was the last of the twenty-four tirthankars. The religious doctrines, principles and tenets of Jainism that were taught by him were not committed to writing during his lifetime, but memorized by his immediate successors and were handed down to consequent generations who eventually split into sects and resulted in varying forms of rituals and worship. The intention of this research paper was to study the evolution of the architectural program in correspondence with the growing rituals of Jainism upto contemporary times.*
*In order to do this, the history and evolution of Jain worship and the spaces required for it were studied through research papers. Interviews with sadhus and sadhvis, helped understand contemporary rituals and activities of the practice of Jainism. Spaces and functions within and around the Jain temples were analyzed with the help of case studies in India and elsewhere.*

*The analysis during this study shows the timeline of evolution of worship and rituals in Jainism along with the requirements of spaces for rituals and worship. The various activities, apart from those of worship rituals within the temple, have evolved from dining, sanitation, celebration, accommodation to several add-ons which adhere to the principles and dissemination of the principles of Jainism. Along with being a repository of knowledge, culture and craftsmanship, each architectural evolution represents a specific need of the culture and needs of its time. This reflects the resilience and adaptability of the religion to assimilate and progress with the passage of time.*

***Keywords:*** *Jainism, Jain rituals, evolution of worship, architectural program, temple architecture, evolution.*

## I. INTRODUCTION

Three branches of non-Vedic philosophy which existed and propagated non-theism were Buddhism, Jainism and Charvaak. They arose in contrast to the complexities of the growing Vedic religion. While the third dissipated over time, the first two, termed as 'heretic', continued and flourish till today (Fowler, 1996).

Jainism is one of the most ancient religions in India and is the sixth-largest religion practiced in the country. Jain prophets, known as *tirthankars* spread the teachings of Jainism. Lord Mahavir was the last of the 24 *tirthankarswho* helped in spreading the religion in India. *Rishabhanath,* the first *tirthankar,* was also its founder. Lord *Parshvanath* was the twenty-third tirthankar. The twenty-fourth and final tirthankar was Lord Mahavir who definitively shaped the ideas of Jainism. Vedic scriptures were written in Sanskrit which was the language of the intellectuals, but Mahavir preached his religion through the common dialect which helped in its spread (Mewada, 2016).

The religious doctrines, principles and tenets of Jainism, as they were enunciated and taught by Mahavir, were not committed to writing during the lifetime of Mahavir or evenimmediately following his death. Theywere memorized by his immediate successors and handed down thus fromone generation to the next untilthey were canonized at the council of Pataliputra in the early part of the third century BCE. As time passed, differences of opinion regarding the interpretation of many doctrines arose and gave rise to separate schoolsof thought and formed sub-sects, which was calledthe 'great schism' of Jainism (Kumar, 2018). The schism had a lasting effect on the dispute over proper monastic practices: the *shwetambaror* 'white-robed sect argued that monks and nuns should wear white robes and the *digambaror* 'sky-clad' (unclothed) sect claiming that a true monk (but not a nun) should be unclothed, symbolizing their non-attachment to all worldly aspects.

The earliest Jain rituals consisted of meditation and discourses by the senior monks who were the teachers. This activity required no formal enclosed space, but rather a place for congregation. The earliest temples, seen from about the third century CE are small single-celled shrines housing Jina images. Eventually, the Jain place of worship has evolved into a complex including not only the shrine, but also spaces outside it, which are used for several specific allied public activities and festivals.

Jainism is therefore seen to be an ancient religion with evolving rituals and places of worship. The aim of this paper is to study the evolution of the architectural program in correspondence with the growing rituals of Jainism. The objectives for this study are as follows:

1. To study the timeline of evolution of worship and rituals in Jainism.
2. To study the requirements of spaces for rituals and worship.
3. To form a correlation between the rituals of worship and the spatial requirements of Jainism.

## II. LITERATURE REVIEW

The evolution of the Jain temple architecture has been studied through the work of several experts. Thepaper, *Critical analysis of Jain Architecture in Bihar region and its influence on Regional Architecture*(Kumar, 2018) explains the evolution of Jain temple architecture over the period of time, from a single shrine to a large complex having *garbhagriha,* multiple *mandaps,* circumambulatory paths. Later, facilities for pilgrims were also added to the temple complex.

Simultaneous with the evolution of temple architecture was the evolution in rituals and worship. Mewada (2016) explains two types of worship prevalent in Jainism – with and without idols, and the various rituals accompanying their worship.He also talks about the great schism that happened after Mahavir attained nirvana which led to division of the Jain community into sects and sub-sects with different sets of beliefs and rituals. Also explained are the rules of conduct for sadhus and *sadhvis,* including their daily activities and space requirements. The above sources have helped to understand how the evolution of spaces in Jain temple complexes have evolved in correspondence with the progression of Jain rituals of worship.

## III. METHODOLOGY

The intention of this research paper was to study the evolution of the architectural program in correspondence with the growing rituals of Jainism. With the help of interviews of *sadhus and sadhvis,* the contemporary rituals and activities of the practice of Jainism were studied and understood. To examine the evolution of Jain worship and the spaces required for it from the inception of the religion till date, research papers have been referred to. The spaces of case studies of Jain templesare analyzed within and around the Jain temples which are used for various functions. These methods helped in understanding the timeline of evolution of worship and rituals in Jainism along with the requirements of spaces for rituals and worship.

## IV. RESULTS AND DISCUSSION

Jainism is an ancient, Indian heterodox religion teaching a path to spiritual purity and enlightenment through disciplined nonviolence or ahimsa (literally 'non-injury') towards all living creatures. It has been evolving and contemporizing itself not only through its philosophies, teachings and religious beliefs, but also externalizing these through its architecture which has also been seen to evolve correspondingly.

### *1. Evolution of Jainism.*

Jain Prophets, also known as *'tirthankars'* spread the teachings of Jainism. The first *tirthankar, Rishabhnath* (also known as *Adinath*) was the first to propound the religious principles of Jainism. Lord Mahavir, the 24th and last *tirthankar* passed away at Pavapuri at the age of 72 in 527 BCE. At this time there were known to be 14,000 monks and 36,000 nuns. Up to the time of Mahavirsects and sub-sets had not arisen, nor had the religious doctrines, principles and tenets of Jainism been were not committed to writing. Instead they were handed down, generation to generation to memory and rote. It is only at the council of Pataliputra in the early part of the third century BCE that teachings were canonized.

Differences of opinions at the time regarding the interpretation of doctrines caused the Great Schism of Jainism in the first century CE. The timeline upto this event can be seen in table 1.

The schism had a lasting effect of continued disputes over proper monastic practices between the two sects. While the *shvetambar* (white-robed) sect argued that monks and nuns should wear white robes, the *digambar* (sky-clad) sect claimed that a true monk should be unclothed, nuns were excluded from this regulation due to the controversy of whether or not a soul could attain liberation (nirvana) through a female body. This led to further division within the *digambar* sect (Roy,1984). As seen in Table 2, both sects eventually split up into further sub-sects due to several contentions.

### *2. Evolution of worship and its rituals in Jainism*

Meditation was assigned a higher value in the new scheme of philosophical development. Jainism and Buddhism, among others, reflected a powerful systematic and philosophical departure from the massive and elaborate Vedic sacrifices and ceremonies. Enlightenment (*jnanamarg*) through meditation (*dhyan*) instead of the traditional approach of sacrificial work (*karma marg*).

The religious philosophy of Jainism teaches that there are nine truths or realities called the nav-tattva(Tater, 2002): soul (*jiva*), non-soul (*ajiva*), merit (*punya*), sin or demerit (*paap*), influx of karma (*asrava*), stoppage of karmic matter (*samvara*), bondage (*bandha*), shedding of karmic matter (*nirjara*) and liberation (*moksha*).

The first *tirthankar,* Rishabhnath (also known as Adinath) was the first to propound the religious principles of Jainism, called *Arhat Dharma,* which

means spiritual enlightenment (Britannica, 2005). Not only the Jain *Agamas,* but also early Vedic literature- *Padma Puran, MatsyaPuran, Shiv Puran.* The term arhat continued to be used till the penultimate *tirthankar,* Lord *Parshvanath.* During the time of the final *tirthankar,* Lord Mahavir, also known as *ShramanBhagwan,*

The word *NirgranthPravachan* was used to denote the Jain religion, which remained the name of this religion for nearly two centuries after his death. It was only in the 3rd and 4th centuries that the name 'Jain' came into existence from the word *'jina',* which means 'the liberated soul'. At present, the word 'Jainism' is taken to mean the complete and combined tradition and teachings of all the *tirthankaras.* The contribution of the first Jain *tirthankar, Rishabhdev* was the incorporation of various non-religious aspects providing training in systematic agricultural work and cottage industry craft (Tater, 2002).

Before the schism, Jain worship did not consist of paying obeisance to idols. The main activity was discourses and meditation and propagation of Jain teachings to the laity. The archaeological evidence of initial use of idols for worship by Jains is found in Mathura dating from the early part of the first millennium(Dundas, 2002), simultaneous with the introduction of idols for worship in Buddhism and Hinduism. This led to the requirement of a built space, to house the idol and to conduct the rituals of worship. The earliest Jain temple is seen in Kulpakji Jain temple in Kolanupaka village in Telangana from around the 1stcentury CE (Shankar, 2018).The idol worshipped is that of the tirthankar or a representative symbol, as a personification of the ideal state which one should aim to attain (Jaini, 1979).

Jain worship is of two types:

a) Abstract worship or *bhavapuja* or - this needs neither idol nor ritual.
b) Idol worship- this involves daily rituals directed towards the idol, such *asdravyapuja* (ritual for idol worship), *jinabimbapratistha* (idol installation) and *samskaras* (chanting mantras). (see Table 3).

*Bhavapuja* does not require a physical space for worship whereas formal worship which consists of *dravya puja, jinabimbapratistha, samskarasrequire* a formal space such as a temple for conduction of worship rituals. Bhavapuja was the predominant mode of meditation and worship during the life of the *tirthankars.* It is seen that *dravya puja,* and hence, the need for a physical space was required.

*3. Evolution of spaces in Jain temple architecture*

It was a gradual evolution starting from rock cut caves temples to structural temples in Jain temple architecture as seen in Table 4. As the worship rituals evolved the spaces of the temple and its premises also increased. from a single shrine to having garbhagriha, multiple mandaps, circumamblatory paths. The spaces were planned along a symmetrical axis which led from the outermost brightly lit mandap upto the garbhagriha which was the darkest space that housed the idol. Over a period of time, complexes were constructed around the temple to provide appurtenant spaces for the growing rituals and residential and other facilities for the pilgrims.

## V. CONCLUSION

As seen in Table 4, Jain temple architecture has evolved from a single shrine, consisting of only the *garbhagriha.* Later, the *sabhamandap,* multiple shrines and other *mandaps* were added. Clusters of temples with compound walls are seen in the later centuries when pilgrimages became prevalent. These complexes were constructed around the temple to provide appurtenant spaces for the growing rituals and other facilities for the pilgrims, and for propagation of the Jain religion. In recent times, the religious complex is seen to grow and accommodate even non-religious and allied functions, such as spaces for community welfare, educational institutes, medical centres, *upashrays, dharamshalas* and *kriyamandaps.*

An example is the Jain Center of South California which formalises the architectural spaces for the study and propagation of the Jain religion. Another is the Chandraprabha Jain temple and other similar places in urban areas which incorporate charitable activities not only for people of the Jain community but for everyone.

Hence it is seen that the development of Jain temple architecture reflects not only the evolving rituals and beliefs of the Jain community, but has even adapted the architectural program for contemporary requirements.

Table 1: **Timeline from Mahavir's death (6 BCE) upto the Great Schism in 1 century CE**
*(Source : Adapted by Author from Mewada, 2016)*

| Date | Event |
|---|---|
| **Not known** | It originated in Northern India and spread from there to the south, but how it began is unclear. There were more 23 *tirthankarsbefore* Mahavir, they followed five vows, *Ahimsa* (non-violence), *Satya* (speaking the truth), *Asteya* (non-stealing), *Brahmacharya* (chastity or faithfulness to a spouse), *Aparigraha* (non-attachment). They also practiced meditation. |
| **6th century BCE** | Lord Mahavir attained nirvana |
| **309 BCE** | *SrutakevaliBhadraprabhu* passed away. *Bhadraprabhu Chandragupta Maurya,* who had left his kingom,took over the leadership of the *sangh* |
| | Returned monks did not accept the two things, introduced by the followers of *AcharyaSthulabhadra,* namely, the relaxation of the rule of nudity and the recension of the sacred texts, and proclaimed themselves as true Jains. |
| | Difference of opinions caused disputes among the two distinct sects, the *digambar* (sky-clad or stark naked) and the *shvetambar* (white-clad). |
| **1st century CE** | The great schism arose and finalized two sects: *digambars* and *shvetambars* |

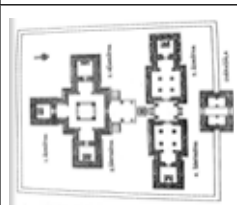
Table 2: **Sects and sub sects in the Jain community**
*(Source :adapted by Author from Mewada, 2016)*

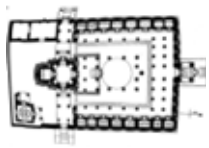
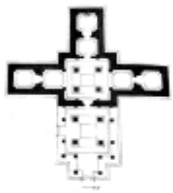
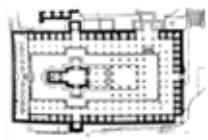
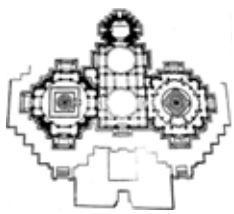
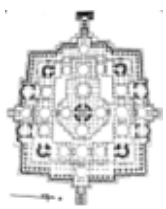
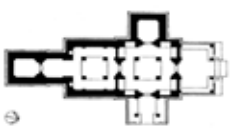
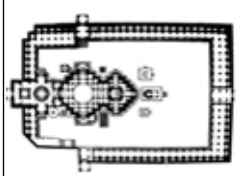
| **A) Shvetambar (white clad)** | | | ***B) Digambar (sky clad)*** | | |
|---|---|---|---|---|---|
| ***Deravasi (murtipujak)*** | ***Sthanakvasi*** | ***Terapanthi*** | ***Bisapantha*** | ***Taranpantha*** | *Terapantha* |
| The original stock of the *shvetambars* is known as *murtipu-jakshvetambars*since they are the thorough worshippers of idols. | The main principle of the *sthanakvasi-* was not to practice idol-worship. | The *terapanthis* are non-idolatrous and are very finely organized under the complete direction of one *Acharya,* that is, religious head. | They support religious authorities known as *bhattarakas* who are also the heads of religious *monasteries.*In temples they worship the idols of *tirthankars*and also the idols of *kshetrapal,* Padmavati and other deities. | This sub-sect is also called *Samaiyapantha* because its followers worship *Sarnaya,* i.e., sacred books and not the idols. | *Terapantha* arose as a revolt against the domination and conduct of the *Bhattarakas* they install the idols of *tirthankars*and not of *Kshetrapala, Padmavati* and other deities |

Table 3: **Activities allied with typologies of worships**
*(Source :Compiled by Author from Mewada, 2016)*

| Typology of worship :**(A) Abstract** | **Description** |
|---|---|
| *a) Bhavapuja* | Worship without an idol. |
| Typology of worship :**(B) Formal** | Description |
| *a) Dravyapuja*<br>(ritual offerings) | a) This is conducted in a temple<br>b) The *Namokaramantra* or *Mahamantra* is recited with devotional songs and hymns. The *Arihanta-Siddha* is repeated during pradakshina or circumambulation.<br>c) Asta-dravyapuja (eight-fold worship) is performed with a rosary of 108 beads, accompanying the following ritual actions with recitation of prayers: bathing the image with pure water; application of sandalwood paste, rice-grains and flowers; offering of saffron-colored astadravyas (rice, coconut, lamp, incense, fruits like cloves and almonds and mixed offerings or*arghya*).<br>d) Worship is concluded for universal peace. |
| *b) Jinabimbapratistha*<br>(idol installation) | This is installation of the idol in temples performed with a great ceremony with devotional songs and hymns, under the direction of a priest. |
| *c) Samskaras* | These are social ceremonies like connected with spiritual and physical purity conducted within the temple premises. They are of three types, viz. :<br>a) *Garbhanvayakriyas* - These are threekriyas or rites which cover the entire life of a person from conception to death<br>b.*Diksanvayakriyas* - 48 rites which are related to new converts and their spiritual development.<br>c. *Kartranvyayakriya* - 7 rites which are meant for personality development of meritorious souls. |

Table 4: **Activities allied with types of worships**
*(Source: Compiled by Author. Images fromSuresh, 2003 & 2011)*

| **Period** | **Temple** | **Plans** | **Components of the programme** |
|---|---|---|---|
| 7thcent. CE | Meguti temple, Hunugunda |  | Garbhagriha, Ardhamandap |
| 8thcentury CE | Changragupta Basadi, Shravanbelagola |  | Garbhagriha |
| 9thcentury CE | Jain temple, Badami |  | Garbhagriha, Sabhamandap, Ardhamandap |
| 995 CE | Ghantai temple, Khajuraho |  | Garbhagriha, Sabhamandap, Ardhamandap |
| 9thcentury CE | Panchkutabasti, Kambadahalli |  | Multiple Garbhagriha with common Sabhamandap, Ardhamandap |

| Period | Temple | Plans | Components of the programme |
|---|---|---|---|
| 1084 CE | Santinatha temple, Kumbharia |  | Complex with compound walls consisting of Multiple Garbhagriha with common Sabhamandap, Ardhamandap, circumambulatory paths |
| 11thcentury CE | Jainabasdi, Arasibedi, Hunugunda |  | Multiple Garbhagriha with common Sabhamandap, Ardhamandap |
| 1196 CE | Parshwanath temple, Halebid |  | Garbhagriha, Sabhamandap, Ardhamandap, Rangamandap |
| 1200 CE | Tejahpala temple, Mount Abu |  | Complex with compound walls consisting of Multiple Garbhagriha with common Sabhamandap, Ardhamandap, circumambulatory paths |
| 1232 CE | Vastupala temple, Girnar |  | Multiple Garbhagriha with common Sabhamandap, Ardhamandap, circumambulatory paths |
| 1439 CE | Adinath temple, Ranakpur |  | Multiple Garbhagriha in chaumukh arrangement with common Sabhamandap, Ardhamandap, circumambulatory paths |
| 14thcentury CE | KunthuJinathaJinalaya |  | ChaumukhGarbhagriha, Sabhamandap, Ardhamandap |
| 1618 CE | Chamukh Temple, Satrunjaya |  | Complex with compound walls consisting of Multiple Garbhagriha with common Sabhamandap, Ardhamandap, circumambulatory paths |
| 1840 CE | Nandisevara-dvipa temple, Satrunjaya |  | ChaumukhGarbhagriha, Sabhamandap, Ardhamandap, circumambulatory paths |

| Period | Temple | Plans | Components of the programme |
|---|---|---|---|
| 1979 | Jain center of South California |  | This consists of the garbhagrha and sabhamandap of the temple, as well an educational institute, with classrooms, assembly halls, library, teachers rooms, toilets, administration room, etc. |
| 11thcentury CE and 21stcentury | Jirawal Jain tirth, Sirohi |  | The temple was constructed first in the 11th century with the garbhagrha, ardhamandap and pradakshina paths.<br><br>The surrounding complex was added in the 21st century, i.e., the kriyamandap, bhojanshala, upashrays, dharamshalas and children's play area. |
| 15thcentury CE and 20th century | Chandraprabha Jain temple, Mumbai |  | The temple was constructed first in the 15th century and later allied functions for welfare of community, such as the kriyamandap, bhojanshala, dharamshala and a medical centre were added around the 20th century. |



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# SIGNIFICANCE AND FORMS OF SAMADHI MANDIRS IN THE SACREDSCAPE OF THE LORD VITTHALA, PANDHARPUR

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***ABSTRACT***

*The Varkari sect, a regional variation of the Bhakti movement in Maharashtra is known for its worship of Lord Vitthala, egalitarian approach, and literature by saints. The religious architecture of the Varkari sect includes celebrated typologies of temples, maths and phads. Samadhis or memorial shrines, that form an important typology of the religious architecture of the Varkari sect, are less studied and discussed. Memorial shrines have associational values, and they dominate the sacredscape of the Lord Vitthala along the River Bhima. There is a rich variation in the manifestation of samadhis in the built form.*

*The paper focuses on the development of architecture of memorial shrines in response to changes in the religious traditions of the Varkari sect. The study uses primary data collected through mapping, inventory and key informant interviews. Archival data helped in tracing the changes in the religious practices of Varkaris. Four types of samadhis are identified, viz, a samadhi temple, tulasi-vrindavan, samadhi platform and free-standing stone slab samadhis. The rich variety of memorial shrines discovered help in establishing samadhis as an important heritage typology of the Varkari sect, that needs to be given due importance in conservation of Lord Vitthala's sacredscape.*

***Key words-*** *Varkari sect, Bhakti movement, samadhi, memorial shrine, Pandharpur.*

## Introduction.

The sacredscape of Vitthala is defined by overlays of spatiality of religious practices of Puranic Hinduism[i], folk religion, reimagined landscapes from Krishna's life as well as the network of sacred places from the *Bhakt* (devotional) movement with spiritual practice of devotion to the God, which flourished in mediaeval times. Vitthala, also known as Panduranga, is the main deity of the *Varkari* sect that emerged as a regional variation of the devotional movement in Maharashtra. Vitthala, standing on the banks of the River Bhima at Pandharpur, is central to the *Varkari* faith, which is Vaishnava[ii] in nature. More than a million *Varkaris*[iii] walk to Pandharpur to meet Vitthala on *Ashadhi Ekadashi*[iv] every year as *Vari,* an annual pilgrimage to Pandharpur. The bank of the River Bhima is dotted with many memorial shrines of different forms. Historically, Pandharpur developed through various phases and is a rich repository of varied building typologies evolved along the way. The temple complex of Vitthala, along with numerous temples, *maths*[v] and *phads,*[vi] as well as *dharmashalas*[vii] form a rich variety of living heritage. A thorough study of the built heritage at Pandharpur reveals the existence of samadhi mandirs or memorial shrines in abundance, especially along the riverbank. *Samadhi* temples were built in the memory of the heads of *maths* and *phads,* religious institutions associated with *Varkari* sect. This paper focuses on the development of the architecture of memorial shrines in response to the changes in the religious traditions of the *Varkari* sect.

## Background and literature study

The sacredscape of Vitthala has developed through the Puranic times, the period of Bhakti, along with traces of folk religion in the region of Pandharpur. Pandharpur is a modest town having a population of approximately 99,000, according to the 2011 Census. It is located in the Solapur district of Maharashtra, on the banks of the River Bhima (Fig. 2). It is a Vaishnava sect worshipping Lord Vitthala, an incarnation of Lord Krishna. Though the earliest reference of Panduranga is seen in the 6th century CE, (Deleury, 1960), it evolved as a place of pilgrimage only after the 13th century CE, because of the spread of the Bhakti Movement in Maharashtra. The *Vari,* an annual pilgrimage to Pandharpur on occasion of *Ashadhi Ekadashi* fetches more than a million *Varkaris* to Pandharpur from various regions in Maharashtra and neighbouring

Fig 1. Samadhi temples in the sacredscape of Vitthala.
*(Image Credit: Omkar Aradhye, Pandharpur)*

areas. The tradition of carrying palanquins bearing the *paduka,* footwear of saints, to Pandharpur was started by Haibatbaba Arphalkar (Abhyankar, 2012) from 1832 CE. The saints belonging to varied backgrounds, preached *Bhakti* and contributed to the egalitarian spirit of the *Varkari* sect. They all preached devotion to Vitthala to attain the ultimate aim of liberation, *moksha.* Saint Dnyaneshwar, Saint Namdeo, Saint Eknath, Saint Tukaram, Saint Janabai, Saint Chokhoba and many more have contributed to *Bhakti* literature. Eminent scholar, Bahirat (1972), identifies five phases in the development of the *Varkari* sect as:

- Pundalik to Saint Dnyaneshwar (upto 1275 CE)
- Saint Dnyaneshwar and Saint Namdeo (1275 – 1350 CE)
- Saint Bhanudas and Saint Eknath (1448 – 1599 CE)
- Saint Tukaram (1598 - 1649 CE)
- Post Tukaram ( After 1649 CE)

After Saint Tukaram, two traditions were propagated in the *Varkari* sect (Mokashi, 1975). The first was the Tradition of disciples that progressed from Tukaram to Nilobaray, Shankarswami Shirurkar and then to Mallappa Vaskar. The second tradition is a hereditary one that moved on with two of Saint Tukaram's sons shifting to Pandharpur. Many *maths* were established after this transition in the early 17th century (Kadam, 2014) to facilitate *Varkari* rituals on *Dashami*[vii], *Ekadashi*[ix] *and Dwadashi*[x] that include *bhajans*[xi] and *kirtans*[xii] and also to provide accommodation. for *Varkaris.*

Pandharpur was located on the border of the Nizamshahi kingdom of Ahmednagar and the Adilshahi kingdom of Bijapur of mediaeval times and as such always faced the brunt of war-like situations. This did not deter the spirit of *Varkaris* throughout. Since the 12th century CE, Pandharpur grew into a pilgrimage place with many temples dedicated to various Hindu deities constructed over this period.


Fig 2. Location of Pandharpur (Map not as per scale).
*(Source : Author)*

Temples dedicated to Ekviradevi, Shiva, Maruti and Vitthala are testimony to this. The sacred text *Panduranga Mahatmya*[xii], probably written at the end of the 13th century CE, describes numerous *tirthas*[xiv] along the river. Very few of these are found today (Sand, 2011). The text also defines the boundaries of the sacred region of Panduranga. So the architectural heritage of this period mainly consisted of temples, tirthas and historic housing of Pandharpur.

Pandharpur truly witnessed an architectural renaissance during the 18th century, only after it came under Maratha rule. This period saw a resurgence in architectural activities. Pandharpur started growing along the river. With the end of the Saint-tradition, for propagating the sect and to provide accommodation facilities to *Varkaris,* many *maths* were established. *Varkari math* heads need not be ascetics. They belong to different places and usually come to Pandharpur during the times of the pilgrimages. Field studies revealed that in the absence of the head in *math,* there are attendants who reside in the *math* and follow the *math's* traditions. Many *maths* were established along the *Nagar Pradakshina path,* the circumambulation route around the town and the river bank. Prominent among these are Amalnerkar Math, Belapurkar Math, Kabir Math, Gunda Maharaj Math, Ausekar Math. The tradition of the *samadhi mandir* started with this transition, as memorial shrines of the heads of many *maths* and *phads* were built mainly from the 18th century onwards.

The *phad* is another unique tradition of *Varkaris. Phad* is a group of *Varkaris* who gather for *kirtan* performances on the days of *dashami, ekadashi* and *dwadashi* (Rananavre, 2006). Vaskar, Dehukar, Ajarekar, Shirvalkar and Thakurbuva are few of the important historic *phads* in Pandharpur. Today, one comes across many *phads* that have emerged from the branching of the founder of *phads.* The *phad* as a building type shows its variation from open space to *math*-like structures or a combination of both. The *phad* also has a chief for running its traditional activities. This tradition also flourished from the 18th century onwards, after the end of the saint tradition. Many historic *phads* are located along the riverbank as many have the rights of performing *kirtans* in the *valvant* or desert of the River Bhima basin on *Kartiki Ekadashi* day. Thus, we also see many memorial shrines dedicated to the heads of *phads* too.

In Hinduism, *samadhi* literary means 'a state of deep concentration resulting in the union with the Ultimate Reality'. The tradition of *samadhi* can be traced to the Vedic period (Bakker, 2007). One of the sacred texts of Vedic times, *Taittariya Aranyaka,* (6th -8th century BCE) mentions the practice of burying the body of the sages who have attained *Brahmaloka,* the heavenly abode (McLaughlin M., 2021) Ascetics attained *Brahman,* unity with the Ultimate Reality, through *samadhi.* In the *Vishnudharmottara Purana,* another Hindu scripture of the 7th century CE, mentions of the construction of three square platforms and a *linga*[xv] on it, termed as *aiduka.*

Mclaughin (2014) posits that post-1200 CE, we find *samadhis* of *yogins,* practitioners of *yoga* and of saints, though earlier it appears to be more of a Buddhist practice. Another school of scholars believe that the *samadhi* tradition in Hinduism is influenced by the Sufi tradition of *dargahs.*

In the history of *Varkari* sect, Saint Dnyaneshwar took *Sanjivan* (living) Samadhi in the 12th century CE. This is an important event for *Varkaris.* In Pandharpur, the *samadhi* temples are built over the remains of holy persons. The tradition of memorial building is also seen during the Sultanate period (13th to 16th century CE) in Maharashtra where numerous *samadhi* temples were built in honour of Maratha warriors.

**Theoretical framework**

While discussing axioms for reading Indian sacredscapes, Rana P.B. Singh (1995) posits that the 'sacredscape' refers to cultural unity and place equality. This emphasizes the equal importance given to all the aspects and items in the sacredscape for holistic understanding of the same. The sacredscape of Vitthala is also understood as a complete whole of ecological settings with sacred journeys for territorial extents, material culture manifested in different types of built heritage with Lord Vitthala at its centre. Various stakeholders attach different values to these manifestations and it is owed to individual perception of the landscape that 'not only of what lies before our eyes but what lies within our heads' (Meinig, 1979). Hence this qualitative inquiry takes a qualitative research paradigm to understand the multiple realities and values attached to the religious structures.

**Methodology**

Inductive approach was adopted to trace the history and evolution of the *Varkari* sect as well as the evolution of the built heritage of Pandharpur, which has evolved in response to the changes in religious traditions. Hence, it is essential to understand the changes in religious traditions that led to the development of the tradition of constructing memorial shrines. Field surveys were carried out to map the *samadhi mandirs* or memorial shrines in Pandharpur. An exploratory reconnaissance survey was carried out to understand the typology and its locational aspect. The study of the built heritage is a distinct field of research which has specific methods. These are classified under three categories by Carman (2009) as:
(a) Textual discourse analysis (b) Methods for understanding approaches by society (c) Methods for explaining material qualities. All three methods were used in the research for the holistic understanding of the built heritage typology of memorial shrines.

Archival study of religious texts helped in understanding the evolution of the sect. Other aspects of the study like associations, rituals, architecture were recorded by inventory filling. Semi-structured interviews of key informants like priests, heads of the religious institutions were conducted to understand the approaches by the society. While the building type was studied for its spatial configuration and its locational aspect. It also involved the study of architectural style, influences, construction materials and techniques.

**Findings**

The *Bhakti* movement flourished in Maharashtra from the 13th century CE. Many saints of varied social backgrounds contributed to the development of the sect. In due course of time, society started worshipping saints along with Lord Vitthala. Due to further change in religious tradition, religious institutions in the form of *maths* and *phads* flourished. Heads of these institutions also contributed to propagating the sect. Memorials of the heads of religious institutions bear high associational value, making them a heritage of significance. These also attract *Varkaris* on occasions. Hence memorial shrines become an important element of the sacredscape of Vitthala.

The field studies identified 29 historic *maths* and 9 historic *phads* in the historic town of Pandharpur. The *math* as well as phad as a building type, demonstrate a unique plan to accommodate space for *varkari* rituals of performing *bhajan* and *kirtan,* a shrine and accommodation for *Varkaris.* In many *maths* and *phads,* along with the Deity, we come across *samadhi* memorials.

It is found that many *maths* and *phads* were established in the 18th and 19th centuries. The 18th century was the golden period of architectural activities in Pandharpur due to emergence of Maratha rule in the region. The activities continued through the 19th century. The period of establishment of some of the maths and *phads* with *samadhi* temples existing in Pandharpur has been classified by Manjul (2016) as follows:

- Amalnerkar -Early 19th century
- Chopadekar – Late 18th century
- Belapurkar - Early 19th century
- Dhundamaharaj Deglurkar -18th century
- Gunda maharaj – 18th century
- Bhau maharaj Dehukar- Mid-18th century
- Kandharkar- Early 20th century
- Dehukar – late 18th century
- Kabir – 18th century

Thus, it is observed that the tradition of *maths* and *phads* flourished from the 18th century. Memorial shrines were built over the remains of the heads of the *math* and *phad.*

**Locations of memorial shrines**

Around 25 memorial shrines were mapped in the riverbed near Mahadwar Ghat. Many memorial shrines were constructed in the *Valvant* of the river Bhima. These *samadhi* temples today dominate the sacredscape along the riverbank (Fig. 1).

Memorial shrines were also constructed within the premises of *math* or *phad.* Kabir Math, Wadgaonkar Math, Belapurkar Math are some of the premises with separate memorial temples.

**Types of memorial shrines**

A large variety of memorial shrines is observed from a

simple platform to temple of large scale. These can be briefly categorised as :
1) Temple type
2) *Tulasi- vrindavan* type
3) Platform construction
4) Free standing stone slab

**1) Temple type**

In temple type, memorial shrines, three categories are observed from large temples to sheltered shrines.

*a) Samadhi memorial of large temple type* - Amalnerkar, Chopadekar and Belapurkar Memorial shrines are in the form of large temples. Since they were built during the Maratha period (18th and early 19th century), these temples follow the Maratha temple style. Amalnerkar and Belapurkar Samadhi temples have a cell in the centre with a verandah of three multifoiled arches on each side (Fig. 3). These multifoil arches are typical of Maratha architecture. The Chopadekar Samadhi temple has a *mandapa,* hall in the front. All three temples are built on stone plinth accessed by steps. The cell has masonry construction with a *linga* or *paduka* placed here in the memory of the person.

*b) Memorial of single cell temple type* - The memorial shrines are modest in scale, consisting of a single cell. It houses tiered masonry construction with a *linga* or *paduka* on it (Fig. 4). We come across a great variation in terms of architectural expression. The Gunda Maharaj shrine temple is built in the Malwa style, while Dehukar memorial temples are built in Maratha style.

*c) Memorials of sheltered shrine type* - These are small independent sheltered shrines of modest scale (Fig. 5). Dhundamaharaj Deglurkar, Kandharkar samadhis belong to this type.

**2) *Tulasi- Vrindavan* type memorial**

*Tulasi - Vrindavan* is a podium-like construction for the plantation of the sacred basil plant at its top. There are niches in its vertical faces for placing idols or lamps. The basil plant is very sacred to *Varkaris.* They wear *tulasi mala* (basil necklace). Every *Varkari* house has a *Tulsi Vrindavan* in front of it. This signifies the importance of *Tulsi Vrindavan* for *Varkaris.* We also come across memorial shrines in the form of Tulsi Vrindavans. The memorial shrine of the famous Marathi poet Shridhar Swami Nazarekar of the 17th century, belonged to this category (Fig. 6).

Fig. 3. Samadhi temple of Amalnerkar Maharaj
*(Source : Author)*

Fig. 4. Samadhi shrine of Gunda Maharaj
*(Source : Author)*

Fig. 5. Samadhi shrine of Kandharkar Maharaj
*(Source : Author)*

Fig. 6. Samadhi of Shreedhar Swami
*(Source : Author)*

Fig. 7. Samadhi of Prahladbuva Badave
*(Source : Author)*

Fig. 8. Unknown samadhi platforms located in the valvant (desert)
*(Source : Author)*



**3) Platform construction**

These types of memorial shrines consist of platform construction of varied scale and type. Prahladbuva Badave, Lakshmandas Maharaj and the Temburkar Maharaj memorials are built in this type (Fig. 7).

**4) Free-standing stone slab**

These are the simplest type of memorials we come across in the *valvant* or desert of Bhima. There are variations found in this category. It includes free standing stone slabs, stones lying in the riverbed with a *linga* or *paduka* on it, and pyramid-like construction consisting of stone slabs placed one above the other (Fig. 8).

The architecture of the *samadhi mandir* flourished from the 18th century and continued till early 20th century. Diversity in manifestation may be attributed to the period of construction as one can observe that large temple-type memorials were built in the early phase of the disciple tradition, while it went on reducing in later times.

The construction employed local basalt stone. Large temples employed brick for spire construction finished with lime stucco works of Maratha type.

**Conclusions**

The changes in religious practices of the *Varkari* sect from the saint tradition to the disciple tradition reflected in the emergence of new building typologies

of the *math* and *phad.* The tradition of *Nagar Pradakshina* was also started during the 18th century CE by the descendent of Saint Tukaram (Rananavre, 2006). Thus, development started along the path of circumambulation. Many *maths* and *phads* are located along the riverbank and path of circumambulation.
The tradition of memorial shrines flourished from the 18th century in honour of the heads of *maths* and *phads.* The memorial shrines are located along the riverbank or in *math* and *phad* premises. The tradition continued till the mid-20th century.

Rich diversity is found in the architectural manifestation of these memorial shrines, from freestanding stone slabs to full scale temples. That the manifestation of the sacredscape (P.B.Singh, 1995) at Pandharpur can be appreciated through the lens of multiple values (Meinig, 1978), is demonstrated through this qualitative study.

*Samadhi* shrines have high associational religious value. Temple type *samadhi mandirs* also possess architectural value. These are good examples of temple types of the Maratha tradition. Memorial shrines, thus, form an important built heritage typology that dominates the riverbank of Bhima. Memorial shrines of Pandharpur form an important part of Vitthala's sacredscape and needs proper attention for its conservation as the pressures of pilgrimage development are increasing day by day.

**End notes**

[i] Hinduism of the times of Puranas, the sacred text believed to be composed over centuries from 300 BCE to 1000 CE.
[ii] Devotees of Lord Vishnu
[iii] Devotee who undertakes *Vari,* a pilgrimage to the Lord Vitthala at Pandharpur
[iv] The eleventh day of the bright half of the Hindu calendar month of Ashadha (June-July)
[v] Building with temple dedicated to saints or Hindu religious schools along with lodging facility for *Varkaris*
[vi] Space for performing *Varkari* rituals like *bhajan, kirtan* and eventually evolved into a *math*-like building
[vii] Accommodation facility built for the free sojourn of devotees.
[viii] Tenth day of each fortnight of a Hindu month.
[ix] Eleventh day of each half of a Hindu month, a sacred day for ritual observances like fasts, worshipping to gain spiritual merits. It is also called as *Haridini,* a day dear to *Hari* or Vishnu
[x] Twelfth day of each fortnight of Hindu month
[xi] Devotional group singing, usually accompanied by instruments, also the song sung by such group.
[xii] A form of devotional enchanting also includes narration of mythological stories/ historical stories accompanied by singing.
[xiii] Sacred texts, part of Puranas to eulogize Gods and places associated with them.
[xiv] Holy water, holy place
[xv] The phallic symbol of Shiva

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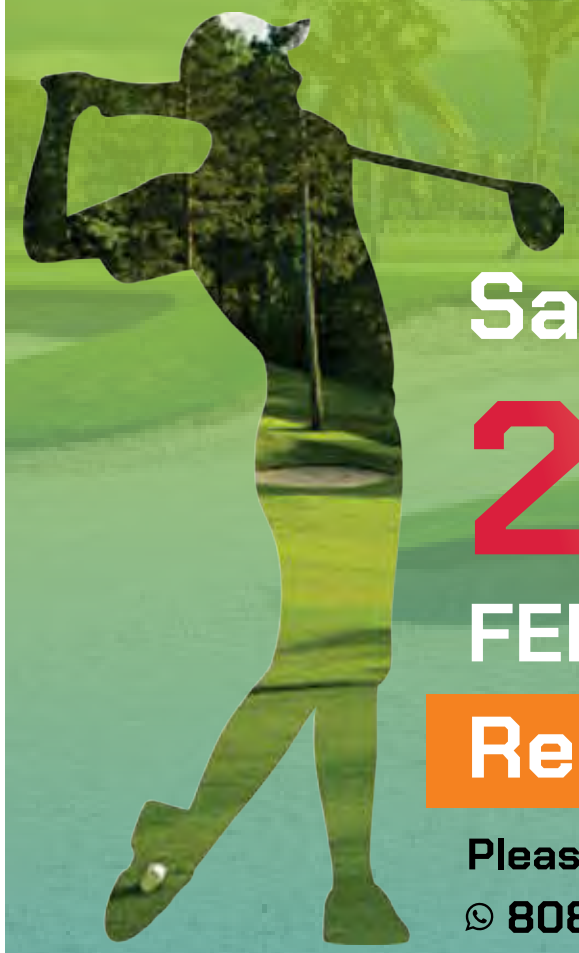

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STUDENT WORK

# COSMOLOGY AND ARCHITECTURE- REMINISCENCE OF THE MYSTERIOUS

**Siddhant Agrawal & Dr. G. Karteek**



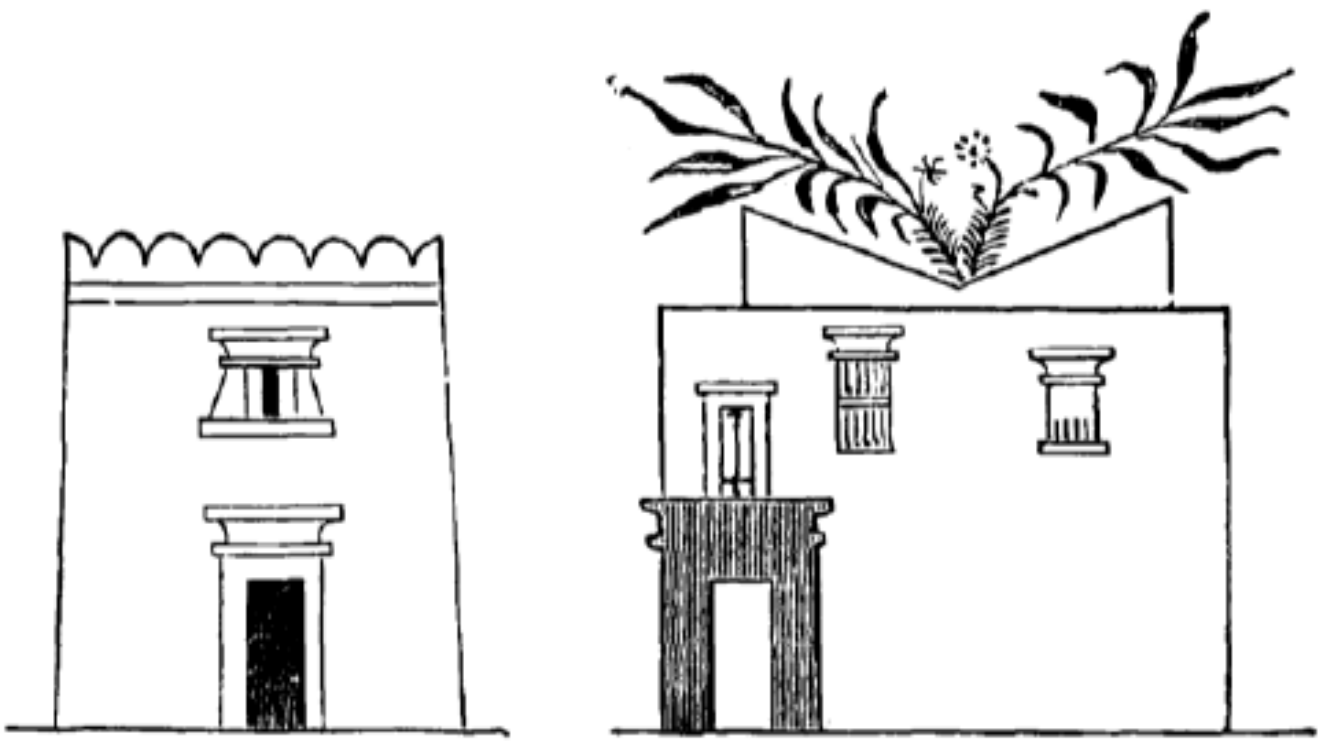

**Fig 1:** Dwelling unit in Ancient Egypt (1300 BCE)
*(Source: Elborombaly, Hossam & B. Luis. (2015). Adaptation of Vernacular-2292.)*

## Introduction

Historically, architecture throughout the world has had a deeper meaning embedded in it through cosmological symbolism, cultural beliefs of the locals, and context-driven designs. Buildings in the past were built around religious, cultural, and traditional beliefs, thus binding together the whole community and connecting them on a larger scale to a sublime and transcendental essence. The cosmos taught early civilizations a way to live in harmony with one another and nature. As civilizations grew, celestial observations provided the premise for bringing together people into commerce, science, and religion. Historically, architecture throughout the world has had a deeper meaning embedded in it through cosmological symbolism, cultural beliefs of the locals, and context-driven designs.

## Methodology

In order to carry out the study, case examples were undertaken from each civilization to understand the influence of night sky, exploring the cosmological beliefs, association with myth and its implication on architecture across these civilizations. As a result of the study, the generic parameters that are associated with cosmology and celestial world were derived. A comparative analysis across civilizations is drawn to analyse the consideration of these parameters to explore the variations and similarities across the civilizations about the influence of cosmology on their architecture. A comparative matrix is drawn finally across various civilizations to comprehensively understand their link to cosmological associations.

## Case studies to understand the influence of various Cosmological beliefs in shaping Architectural practices of Early Civilizations

*1. Egyptian Cosmology and Solar Architecture*

As the Egyptians were worshippers of the Sun god, the observations of sky and celestial bodies was crucial to them because that is where the Sun appeared from. The Egyptian civilization primarily depended on the Nile River for agricultural practices and that is where the Egyptians settled. It was because of their practice of observing the skies, they realized that the Nile River flooded every year around the Summer Solstice.

*Solar Architecture in Egyptian Society*

In Egyptian society, the construction of buildings was not unintentional or random; there were numerous buildings which were influenced by Astronomical relationships and local beliefs (Ezequiel, Joan Lluís, & José , 2015). The observations of the sky were then recorded in the form of a calendar for referencing. The calendars were based on solar observations, and allowed them to predict the arrival of seasons. This was important for Egyptians because they heavily relied on the water level of the Nile River for agriculture, thus it was a necessity for them to combine high levels of astronomical knowledge and prepare the calendar.

Courtyard housing, originally was developed for protection against external dangers, animal attacks, extensive solar radiations, and as a result, courtyard housing was adopted as a solid typology of construction in domestic use.



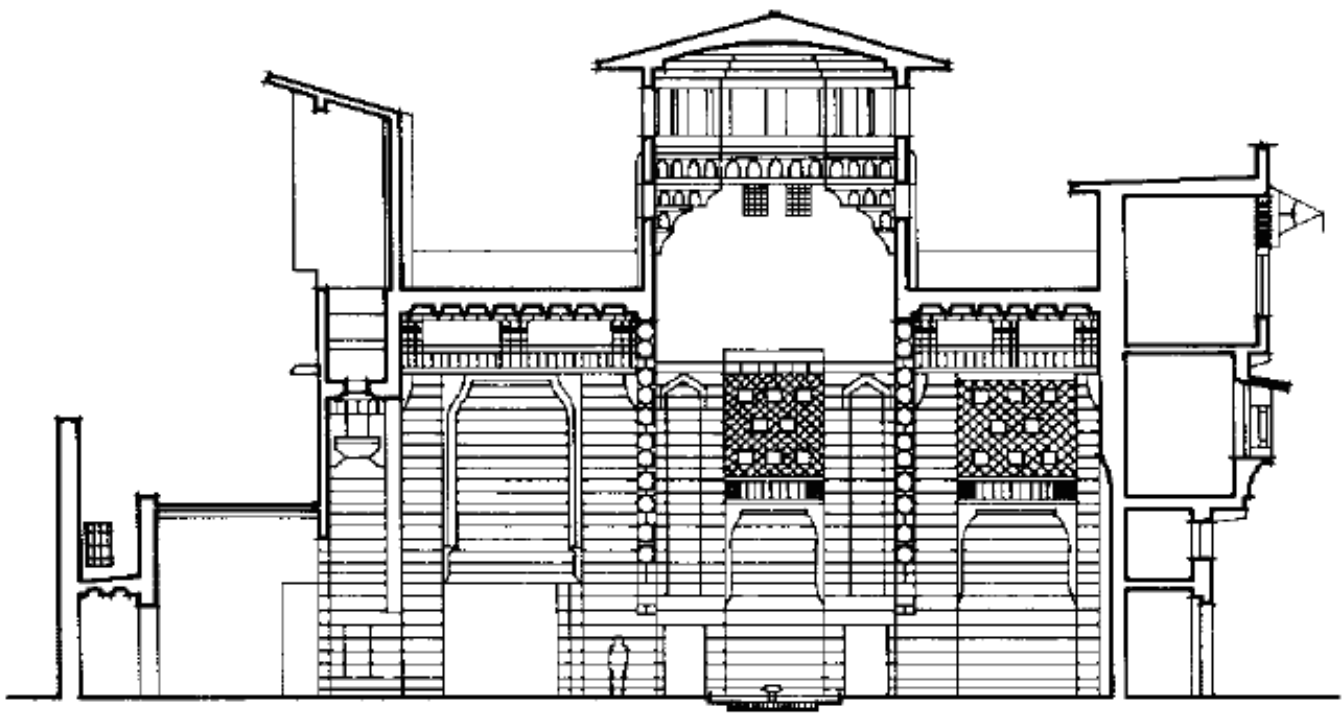

**Fig 2:** Section through a building, built in Cairo (1350 BCE)
*(Source: Elborombaly, Hossam & B. Luis. (2015). Adaptation of Vernacular-2292.)*

*2. Mayan Civilization and the ruins of El Castillo*

The spatial cosmology of the Maya is based on a layered model of the universe, somewhat reminiscent of the Mesopotamian universe, with a flat Earth surrounded by multiple "heavens" and multiple "underworlds" ruled by various gods and demons. Like the Native Americans, the Maya believed that the Earth was aligned at its edges with the four cardinal directions, with colour symbolism for each of the directions – red, white, black, and yellow for east, north, west, and south, respectively (Penprase, 2017).

*El Castillo, Chichen Itza*

Chichen Itza, now in ruins, was a Mayan city on the Yucatan Peninsula in Mexico. The city has one of the most famous Mayan step pyramids known as the El Castillo, a 79-foot stone pyramid - a symbol of Mayan myth and as a structure which embodied a natural astronomical cycle.

The architecture and alignment of El Castillo has one of the most dramatic building alignments amongst Mayan structures (Penprase, 2017). As the front steps of the pyramid are oriented such that the front steps of the pyramid face the sunrise of the summer solstice, on the day of Equinox it provides a fantastic show of light and shadow. As the sun sets, the north western corner of the terraces cast a shadow on the northern (front) stairway, creating a diamond pattern representing a snake's body (2017). The effect of shadows is enhanced by the huge snake heads carved at the bottom of the stairs. This diamond-backed snake is composed of seven or so triangular shadows, cast by the stepped terraces of the pyramid. The sinking sun seems to give life to the sinuous shadows, which make a decidedly snaky pattern on their way down the stairs. (Penprase 2011, 214). The pyramid was aligned on important astronomical axes, and the west side of the pyramid faced the zenith passage.

*3. Mesopotamian Cosmology and Ziggurats*

Mesopotamia, situated in the fertile valleys between the two rivers Tigris and Euphrates was one of the earliest known human civilizations on earth. Due to its geographical positioning, Mesopotamia was one of the first civilizations in the world to observe the night sky and practice rituals accordingly in their daily lives. The cities were located on lowland lacking any monumental natural terrain in the region, the only visible monuments were the raised temples, which could be seen from the settlement walls as well. Another reason for this could be to provide a vantage point for clearer observations of both the landscapes and the skies.

**Fig 3:** The Serpent Shadows at Chichen Itza *(Source: Thomas More Travel, https://www.thomasmoretravel.com/blog/wp-content/uploads/2020/02/Chichen-itza.png)*

**Fig 4:** Constellation Orion over Chichen Itza *(Source: APOD, NASA. https://apod.nasa.gov/apod/ap121221.html)*

*Ziggurats*

The structure, despite being considered simple, was perceived as the connection between the earth, the sky and the domains of the two gods Enlil and Anu. Ziggurats were often deemed as the "High temples of Mesopotamia". The architects of the time consciously embedded a "blueprint of the Cosmos" through careful selection of dimensions, numerical ratios, alignments with celestial bodies.

Ziggurat as a structure served multiple functions, as a temple and a funeral complex. As the ziggurats were built on a higher ground, the outer edge of the ziggurats were subterranean levels where the rulers were buried (Penprase, 2017). This was indeed symbolic as it reflected the structure and hierarchy of the Mesopotamian version of the universe, with many levels and layers above the earth, and many "underworlds" beneath the surface.

*4. Chinese Cosmology and Solar Alignment of the Forbidden City*

Chinese cosmology was a blend of the philosophies of Chinese Taoism, traditional folk philosophies and accurate celestial recordings and measurements of the night sky. They were very observant of nature and natural surroundings, thus interpreted the movements of celestial bodies in terms of natural forces and independent elements. The ancient Chinese urban planning was a union of planning principles, and symbolisms directly related to cosmology, numerology and astrology The traditional Chinese believed in the concept of "Qi", a concept of natural energy flow, and the North-South orientation of cities helped maintain the "Qi" which also flows in the same direction.

*Ming Beijing: The Forbidden City of China*

The city is enclosed by walls, and four gates on each of the cardinal directions. The most important entrances are the Meridian Gate or the South gate, and the Gate of the Divine Might or the North gate. The city is divided such that there is a public part in the south and a private part in the north reserved for the emperor. In the east-west direction, the city is divided into three sections, in which the central area is reserved for the emperor (Zhang, 2019).

*5. Greek Cosmology*

Ancient Greek civilization, which existed for 1000 years from 1200 BCE till the death of Alexander in 323 BCE, was undoubtedly one of the most advanced civilizations in the world. The Greeks were supposedly the first civilization to look at the sky with logical reasoning and had the ability to

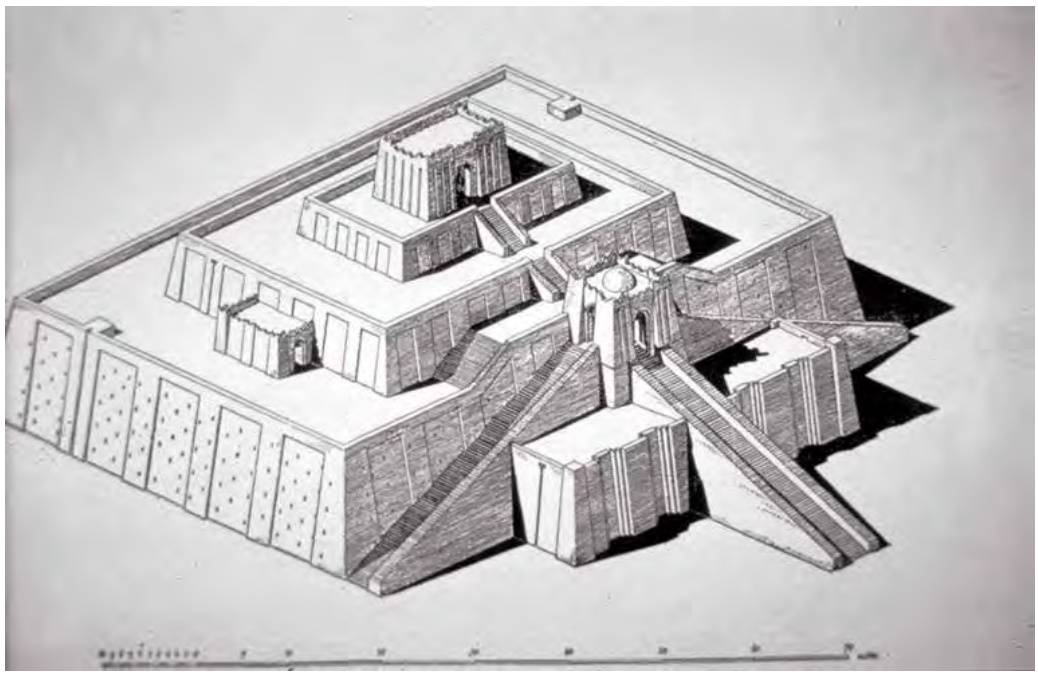

**Fig 5:** View of The Ziggurat of Ur *(Source: Dept. of Religious Education, Brigham Young University. Harold B. Lee Library, 2002. https://contentdm.lib.byu.edu/digital/collection/RelEd/id/3776/)*

**Fig 6:** View of The Ziggurat of Ur from the direction of the summer solstice sunrise *(Source: https://commons.wikimedia.org/wiki/File:Ziggarat_of_Ur_001.jpg)*


**Fig 7:** Star trails over the Forbidden City, Beijing, China
*(Source: EarthSky, Photo taken January 13, 2016 by Jeff Dai)*

separate mythological stories from the phenomenon of the universe. The concept of a primordial, non-divine element underlying all things was a common theme of Greek thought (Penprase, 2017).

*Alexandria and Astronomy*

The Greek civilization was considered to be at the peak during the reign of Alexander the Great. It was during his Persian campaign that he decided Alexandria to be the capital of his Egyptian ties and a naval base to control the Mediterranean. Alexander had envisioned Alexandria as the greatest city in the world to have ever existed. The city was planned on an orthogonal grid and the main longitudinal axis was oriented to the rising Sun. The axis was oriented to the rising sun on the day Alexander the Great was born thus demonstrating the intent behind the creation of this city (Magli & Ferro, 2012).


**Fig 8:** Plan of the city of Alexandria, depicting the orientation of the city.
*(Source: https://www.michaellivingston.com/wp-content/uploads/2008/02/alexandria.JPG)*

*6. Incan Cosmology*

The Inca civilization prospered in Ancient Peru in 1400 BC, and was the largest human settlement in the world at the time. The Inca civilization which was built upon other cultures such as Huari, Chavan and Nazca, was one of the most technologically advanced civilizations of the time and was unsurprisingly known for their adaptation to natural landscapes such as plains, mountains, deserts and tropical jungles. Similar to other civilizations of the world, Incas were also captivated by the night sky and thus attributed religious principles and ethics to the stars above.

*Solar orientations across the Inca Empire*

Machu Picchu was a royal establishment for the ruler of the Inca's, King Pachacuti. The remains of the retreat are living examples that the Incas had an advanced understanding of architecture, urban planning principles, construction

**Fig 9:** Sunlight as it falls through a window of the Sun temple, Machu Pichu, on the day of the June solstice.
*(Source: Killa Expeditions, https://killaexpeditions.com/wp-content/uploads/2016/06/IMG_0327-1080x675.jpg)*

techniques and drainage. The Incas believed they had a special relationship with the Sun (Gullberg, 2020). It was a fundamental belief of their religion. Along with the sun, the moon held equal importance in their culture. The Incas observed and recorded daily movements of these bodies.

The state purposely created numerous constructs with astral orientations, both to take advantage of the regulatory nature of recurring celestial events and also to create an aura of connectivity with the heavens in an effort to further establish power and legitimacy (Gullberg, 2020).

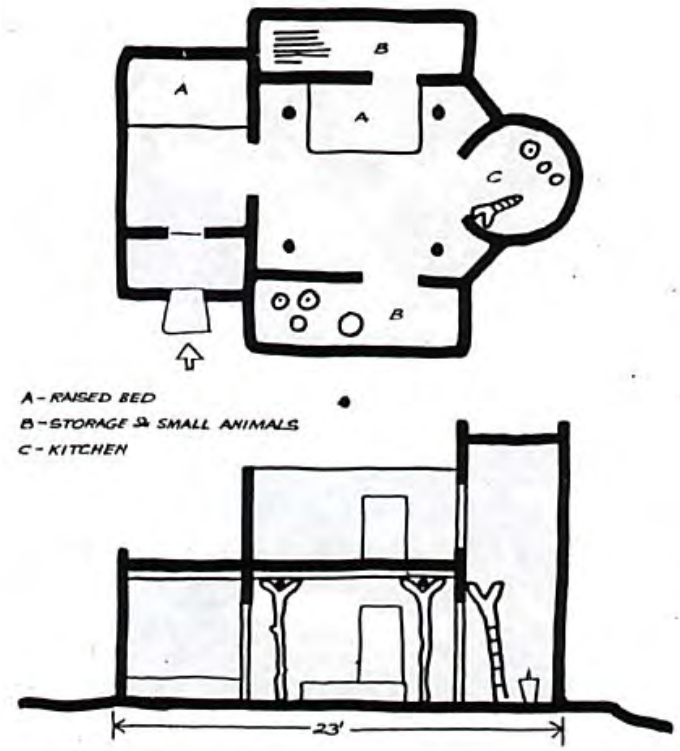


**Fig 10:** Plan and section of a typical Dogon house
*(Source: https://in.pinterest.com/pin/323133341985149554/)*

*7. Dogon Cosmology and Housing Architecture of the Dogon*

Dogon tribe, situated in the Bandiagara region of Mali, are a renowned tribe of Western Africa. The people from this civilization believe that the universe was created by "Amma", the creator god. Apart from believing in Gods, the people also had faith in souls, and afterlife. Most ritual beliefs of Dogons are based on their complicated cosmology.

*Housing Architecture of the Dogon*

The buildings were built in certain shapes and ways so as to mimic the cosmos. The circles represented the sun, orbits, the moon, planets and a symbol of the cyclic mechanism of time. Similarly, the square represented the four cardinal directions, and the equinoxes. In addition, the sacred places of Dogon tribe, which are places to respect the ancestors, are built with the same circular and square structures, and include rich symbols such as snake as the symbol of regeneration, the coffin and the eight square maps representing the cosmic design, movement and resurrection (Ghanbari, 2021).

The houses in the village followed a typical layout, and was inspired from the body of a sleeping woman. It is noteworthy of mentioning that along with symbolic plans, the number "eight" has a unique importance in Dogon cosmology and has been interpreted in various ways within the beliefs of these people.

*8. Harappan Cosmology*

*A Case of Dholavira, Harappa*

Dholavira had a unique layout consisting of three towns which was in correspondence with the Vedic ideas. In all three towns of Dholavira, the concept of self-replicating geometries or recursions, or the repetition of ratios at different scales was evident. The Bailey region of the city was a structure with a plan-form that was quite unique from other structures within the city indicating it was reconstructed over an existing structure. The overall structure was a 13-room rectangular structure with two circular rooms (Vahia & Menon, 2013).

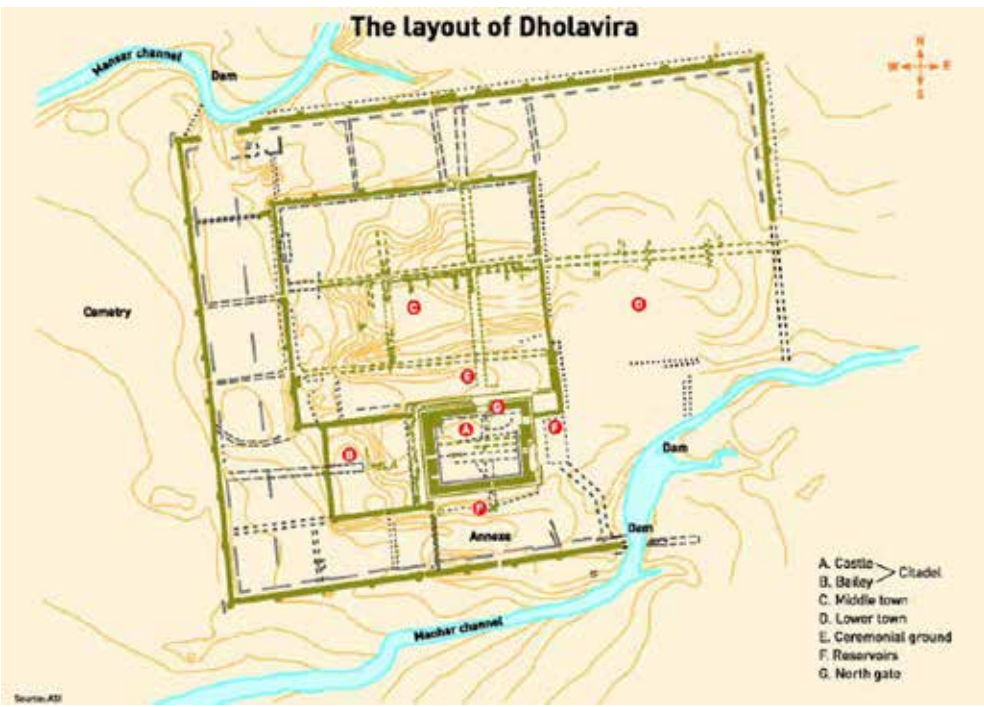


**Fig 11:** Site plan of the Harappan city, Dholavira
*(Source: The rise and fall of Dholavira (2010). Frontline Print Edition)*


**Fig 12:** A circular structure at the Harappan site
*(Source: Archaeological survey of India, ASI https://asi.nic.in/excavations-dholavira-gallery/)*



The structure was in accordance with the cardinal directions, with one of the circular rooms in the northern direction. The shadows of the structure would always fall on the northern end, apart from noon of summer solstice, where the Sun would be at Zenith, this was because the site was located on the Tropic of Cancer. The Bailey structure was one of the first structures built in accordance with celestial positions and it would be correct to assume that the circular rooms of the structure were used for astronomical observations.

## Findings and Discussion

*Important Aspects followed by various civilisations*

From the above study, some of the parameters have been drawn to derive a matrix for comparison of civilizations to comprehensively understand the cosmological associations these civilizations had. Location, Time period, predominant religion of the civilization, major cities in the civilizations where it was experimented, perception of the world, primary purpose of astronomy, architectural alignment as per solar position, as per lunar position, as per planetary positions, position of stars and buildings where these were demonstrated are the aspects which were used in the matrix.

*Comparative matrix and Analysis*

A comparative matrix across civilizations is drawn as shown in Table 1 below, to analyse the consideration of these parameters to explore the variations and similarities across the civilizations about the influence of cosmology on their architecture.

## Conclusion

The below matrix indicates that all the civilizations had a great regard to solar position as a reference to align the architecture of buildings. Mesopotamian and Chinese civilizations had association with the Lunar position and Egyptian and Mayan with Planetary positions. Greek, Egyptian and Chinese had alignment with respect to the position of stars. Egyptian and Chinese civilizations among others had greater association to the cosmic world in their architecture. The study is an indicator that various civilizations from around the world started as settlements with different ideas, beliefs, methods in various geographical locations, yet they are bound by a common factor, a necessity to observe, learn, and record the night skies. It can be concluded that even amongst all the differences, the stories of creation and the mysteries of the night sky had a huge impact in the evolution of settlements as well as civilizations, and clearly, the mysterious and distant celestial world had left a long-lasting impression on the history of humans.

Table 1: A matrix of comparison between the different civilisations from around the world based on the parameters identified above. *(Source: Author)*

| **CIVILIZATION & TIME PERIOD** | **Major Cities** (with Present-day Location) | **Religion** | **Perception of the world** | **Primary Purpose of Astronomy** | **Architectural Alignments** (acc. to solar position) | **Architectural Alignments** (acc. to lunar position) | **Architectural Alignments** (acc. to planetary positions) | **Architectural Alignments** (acc. to star position) | **Examples of Celestial Architecture** |
|---|---|---|---|---|---|---|---|---|---|
| **MESOPOTAMIAN** (3100-539 BCE) | Uruk, Akkad, Babylon in Western Asia | Polytheism (Ea, Anu, Enlil) | Layered disk shape model with an underworld, the earth, and the upper heaven | Predict the future by recording celestial events and astrological forecasting | Yes | Yes | - | - | Ziggurats (Ziggurat of Ur) |
| **EGYPTIAN** (3000 -300 BCE) | Memphis, Thebes, Aswan in North-Eastern Africa | Polytheism (Neith, Sekhmet, and Mut) | Underworld, Upperworld, and a disk shape world surrounded by the Great Ocean | Predict the occurrence of natural events and perform better agricultural practices | Yes | - | Yes | Yes | Egyptian Pyramids (Pyramids of Giza) |
| **HARAPPAN** (2500-1700 BCE) | Harappa, Dholavira, Mohenjo-Daro in Eastern Punjab Province, East Pakistan | Polytheism (Brahma, Vishnu, Shiva) | Layered model of the universe. Three main layers earth, sky, heavens, and a model of the multiverse | Predicting the seasons, navigation purposes and astrological beliefs | Yes | - | - | - | A single case of Observatory at Dholavira |
| **CHINESE** (2000-232 BCE) | Beijing, Xi'an, Nanjing in Yellow River Valley, China | Polytheism (Taoism) | The Earth sits atop a square base, around a watery sea, heavens enclose the Earth in a dome of atmosphere | Predict natural events, proper timekeeping, astrological beliefs | Yes | Yes | - | Yes | Ming Beijing (The Forbidden City) |
| **MAYAN** (1500-200 BCE) | Nakbe, Tikal, Copan in Southern Mexico, Guatemala | *Polytheism (Itzamná, Chaac, Ix Chel)* | Layered model of the universe, with a disk earth, layers of heaven above, and underworld below | Predict the will of God (upcoming natural events) and practice rituals accordingly | Yes | - | Yes | - | Stepped Pyramids (Chichen Itza) |
| **INCAN** (1200-1572 CE) | Cuzco, Machu Picchu in Peru | *Polytheism (Viracocha, Inti, Pacha Mama)* | Cuzco as the centre of the universe lying on a disk shaped earth with a dome like layer of atmosphere | Predict seasons for agricultural purposes, understand the will of God, perform rituals based on observations | Yes | - | - | - | Temples (Sun Temple at Machu Pichu) |
| **GREEK** (1200-323 BCE) | Athens, Thessalonika, Alexandria in Greece and parts of Turkey | Polytheism (Zeus, Poseidon, Hades) | Disk shape world with hemisphere of atmosphere (air, water ether) and an underworld | Derive mathematical calculations, benefitting the empire, development of philosophy | Yes | - | - | Yes | Alexandria City |
| **DOGON** (1000 CE-Present) | Bandiagara, Mali in Western Africa | Monotheism (Amma) | Multiple perceptions of the world - the earth is flat, sky is stone, water above and beneath the earth | Predicting the seasons, navigation, timekeeping, performing rituals according to celestial events | Yes | - | - | - | Dogon Settlements |



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**Dr. G. Karteek,** the guide of this study, is a graduate from Andhra University and post graduate in Urban Design from School of Planning and Architecture, New Delhi. At present, he is Assistant Professor in School of Planning and Architecture Vijayawada (SPAV). He was the recipient of the Erasmus Plus Global Mobility Scholarship to visit Norwegian University of Science and Technology (NTNU), Trondheim, Norway and was also part of the European Union funded project Building Resilient Urban Communities (BReUCom) in partnership with Krems University, Austria.
karteekg@gmail.com

# DIALOGUE WITH AR. NILS FISCHER

## DIRECTOR OF ZAHA HADID ARCHITECTS, LONDON

**Ar. Mu.SarathKumar**

Architect Nils Fischer
*(Source – Zaha Hadid Architects)*

The search for shelter has started in caves and is now reaching beyond our planet. Architecture has evolved along with mankind. And today, architecture is reaching new heights with new technologies being introduced in design and construction.

Zaha Hadid Architects is known for their post-modern buildings, particularly of deconstructivist style. The parametric form evolution, material evolution, and construction techniques that they have been working on for the last 25 years have set a benchmark for design and construction in the field of architecture.

Students and architects from all across Tamil Nadu have participated in the 'Namadu Vizha' organized collaboratively by the Indian Institute of Architects, Tamil Nadu Chapter, and Chennai Center.

Architect Nils Fischer, who is one of the directors on the board of ZHA, was a special guest and gave a presentation titled 'The Generic City: A Neglected Child' covering the evolution of architecture and architects in today's technology-driven world. He has put forward profound thoughts on the need for people-centric design in changing times, how identity and culture can be integrated with nature, and how architecture can be integrated with growing technology.

In our interview with architect Nils Fischer, following the presentation, he shared his early experiences of working with Zaha and Patrik and parametricism in the Indian context, which is presented below.

**How did you get into ZHA and can you share the experience of working there?**

I studied architecture in Germany, and for a while, I was working in Germany primarily on what we considered to be the breeding edge of computational design at the time. So, we would start to use movie-making software to create shapes for architecture. Then I was very lucky to work for a firm in Frankfurt, acquiring the first clients who are ready to invest in this. So, we did a few high-profile projects for BMW. This was very interesting because we could use a lot of their resources to turn our very kind of fluid ideas for architecture into the real-world building.

There was some unique translation from manufacturing techniques into architecture. So that was the technology that came from shipbuilding and automotive and we turned it into buildings and installations using a lot of advanced engineering.

About one and a half years after I started to work on these projects, I was introduced to Patrick and Zaha about these installations and projects that we are doing in Germany, which involve a lot of technology.

That's how I got invited to London, and then, very shortly after a week, I had my first computation to do, so I just kind of fell into it.

Zaha Hadid & Patrick Schumacher *(Source – Dezeen)*

**How do you think parametricism can be applied to the Indian context?**

I think interestingly, I believe that parametricism is a strategy for how to connect data and contextual influences and it's more of a method that you can apply to any given context. It doesn't compete with ideas like culture, tradition, or heritage. It's a strategy to bring things together, connect them, and make them part of a complex structure. Parametricism is a tangible form of expression and is culturally agnostic in that sense.

I haven't shown any Indian examples yesterday (referring to the presentation he had made the day before in IIA 'Namadu Vizha') but I have shown you examples of the structure of traditional Chinese buildings and then used its structural system and formed it with new components and what you get is distinctly contemporary, but that inhibits a lot of the underlying ideas that we found in the local context.

Rendered Images of Upcoming Navi Mumbai Airport *(Source – Dezeen)*

I think this is a strategy that you can also apply very well using architectural elements that you find in the local context in India and particularly in Tamil Nadu.

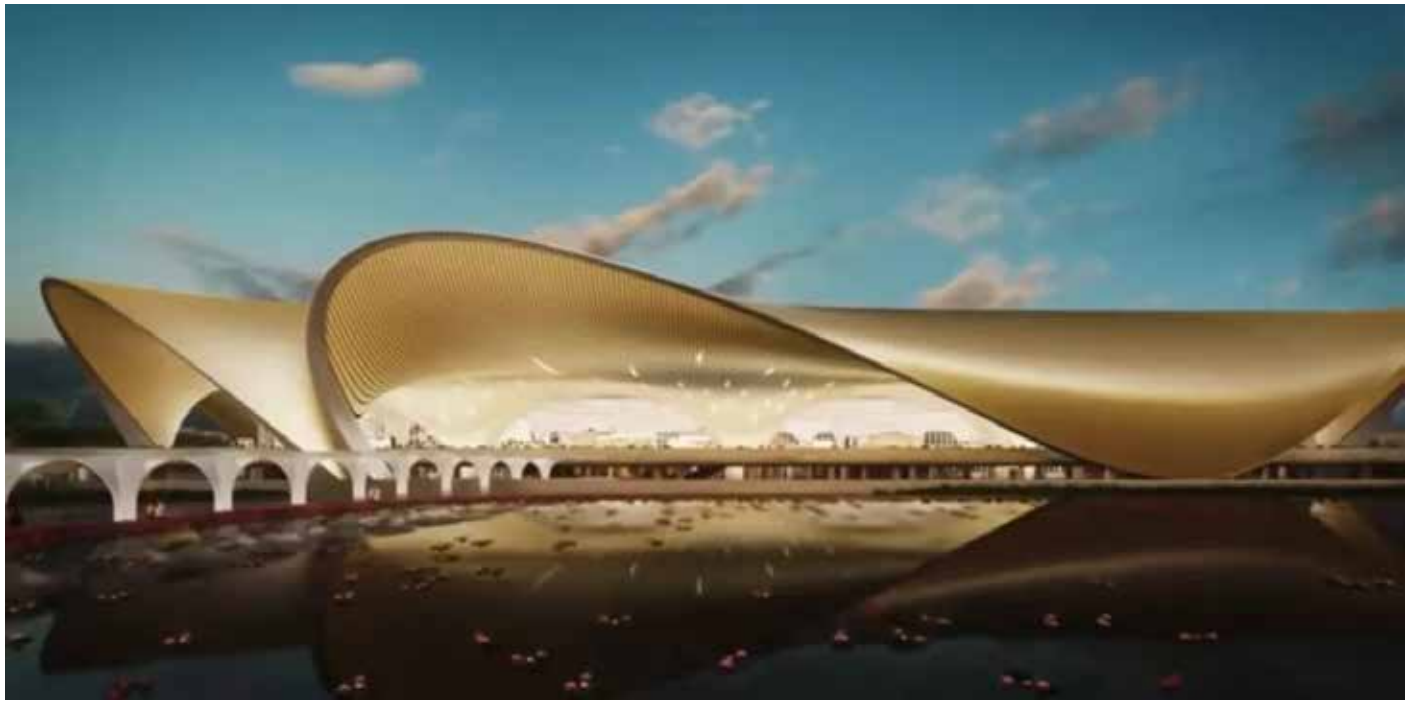
**How can parametricism be made to reach common people in countries like India?**

I would say it will work with all scales. That's what I tried to show in my presentation yesterday. I started with cities and ended with jewelry. We didn't start with big projects. Our office projects were comparatively small, and still today we do pavilions and small interventions in places that we find interesting.

One of the projects that may be worth looking at in this context is the extension of the Serpentine Gallery. Its structure is distinctly different from the existing building but at the same time, it kind of naturally attaches. I think the form and contrast between these structures could be bigger but if you see them as a composition, I believe it works together very well. I think it's a very good example of using parametricism in a very small context, also using the principle complementing the architecture and acting to the context, it's almost like a building in one piece.

**What would be the next digital U-turn, Generative Architecture or Discrete Architecture?**

I think Discrete Architecture is an intellectually interesting exercise. The digital U-turn will be how we can be finding our altitude with artificial intelligence. We have been using trained data models for correlations for many years, in that sense, AI is not new. But this year 2022 brought a real change for me when I saw some of the second-generation semantic image generation engines like DALL.E 2 and Mid journey AI. They create images based on text inputs and sentences that you type. They have been around for quite a while and now



Rendered Images of Upcoming Navi Mumbai Airport *(Source – Zaha Hadid Architects)*

you get photorealistic images of things that didn't exist yet they are also very good at producing ideas for architecture. They all have a slightly surreal element to them.

In my view, this is the first step to dream on a computer and the images are strikingly convincing. The interesting thing is that these are bitmaps. It is pure image processing and there is no real concept of space behind it.

But I think this puts a lot of very interesting questions around the originality of ideas and the concept of intellectual property. Because all these images can only be created based on a lot of data. So, there is an element of human creation in them; otherwise, there would be no data to train the model. I think repositioning the roles of the computer and the human creator in the design creation process is going to be a very interesting exercise. And I'm not afraid but embracing the change.

In traditional design, you directly control the geometry. In parametricism, we start to focus on the relationship of the elements and remove ourselves by one layer. And with AI, we remove ourselves again by one layer because the relationships are built by the neural networks.

Striatus bridge by Zaha Hadid Architects Computation and Design Group & Block Research Group (the first 3d printed concrete bridge) *(Source– Zaha Hadid Architects)*

So, I think, about 20 years ago, with the advent of parametricism, people thought computers were going to replace humans. It is just that humans have more meaningful work to do. We can expect a similar redefinition of the role of the designer through the introduction of AI in the creative process.

**How can technologies like metaverse and NFTs bring a change in architecture?**

NFTs are an interesting and necessary tool. You can't easily copy a building in the real world, because it costs a lot of money. In a real-world building, the main investment is in building the building, not in paying the designer. In the digital world, the IP generation process becomes the fundamental investment into an asset.

NFT is a necessary and valuable technology to make it worthwhile for good designers to go into the space to invest time and resources. Because obviously, if a design can be ubiquitously copied, there is little motivation for professionals to create meaningful artifacts for the digital space. In that sense, through blockchain contracts, you can introduce completely new use-case scenarios, you could say, for example, I create a building that can be used as a movie set and you just rent it for two weeks as a backdrop for a movie.

The movie industry is very interested in three-dimensional NFTs. It is much cheaper nowadays to build a set for a movie on a computer rather than going to a real-world location, but you still may want to have real-world architecture. This is where all of a sudden, the combination of NFTs and three-dimensional digital assets becomes very powerful. They are far beyond just trading status symbols. They have real-world use cases in all kinds of scenarios and industries creating unique digital assets.

The Serpentine Sackler Gallery, London. *(Source – Zaha Hadid Architects)*

About the Metaverse, it's good news for architects. There will ultimately be digital social spaces. And there's exactly one profession that knows how to design social spaces and that's architecture. So, I think very quickly, designing spaces for the metaverse will become a highly sought-after service where I believe no discipline is better placed to make a meaningful contribution than us, architects. It's all about learning new tools and adapting to technology, ultimately creating meaningful spaces for humans to communicate.

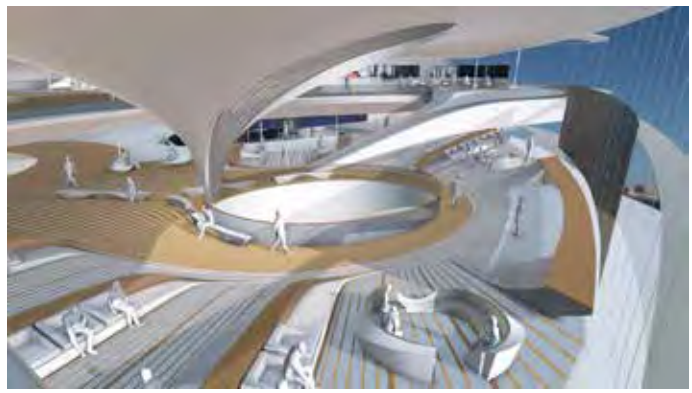
**As an architect, what are your views on issues like climate crisis and global warming?**

It's real and a huge responsibility for architects. My take on sustainability is a slightly broader one. I think it is not only about using the right materials and putting the building together. It's quite interesting to note that the construction sector is contributing globally to greenhouse gas emissions at a rate of about 40%, which is massive. About half of this is in building buildings and the other half in running buildings, in the northern hemisphere heating buildings and the southern hemisphere cooling buildings.

In my view, the most sustainable building is the one that you never need to replace. So there is one aspect, which is building buildings the right way, but the other aspect is designing them so that they do not need to be replaced. So, in my view, a very important factor in the conversation around sustainability is the relevance of a design. So, we not

Virtual Liberland Metaverse, "Cyber-Urban" *(Source – Zaha Hadid Architects)*

Virtual Liberland Metaverse, "Cyber-Urban"*(Source – Zaha Hadid Architects)*



Virtual Liberland Metaverse, "Cyber-Urban" *(Source – Zaha Hadid Architects)*

Virtual Liberland Metaverse, "Cyber-Urban" *(Source – Zaha Hadid Architects)*

Antwerp Port House, Belgium *(Source – Zaha Hadid Architects)*



only need to have better-engineered buildings and better materials, but we also need to consider the resilience of our design so that buildings can stay relevant for longer.

For example, I was looking at how we can reuse existing buildings and I found that warehouses that are 120 years old with large column grids and higher ceiling heights are suitable for use as office spaces. But after the war, buildings that were over-optimized in the 50s, didn't allow us to reuse them, and couldn't be converted into relevant spaces. This is an example of how buildings became too optimized and lost their relevance. In a way, the most sustainable building is the one that you don't need to build.

Considering how we can create better designs that can be reused even if the use of the building changes is a very important aspect that we as architects need to be aware of. About the growth of cities, we'll be building cities for almost 2 billion people in the next 20 years and we have to take into consideration how all these new cities can still be relevant in the future, which we may not even know yet.

*We believe that this interview article with architect Nils Fischer on topics such as parametricism, metaverse and non-fungible tokens (NFTs) would have deepened your understanding of the latest technologies. He has explained that parametricism is more of a design strategy than just a design tool.*

*The interview would have stressed the importance of architects embracing new technologies. And above all, our role as architects in the global challenges such as climate change and global warming by turning toward sustainable buildings. We strongly believe that this motivates architects and designers to take up innovative and sustainable designs for mankind.*

*We express sincere gratitude to the Indian Institute of Architects, Tamil Nadu Chapter and Chennai Center for organizing 'Namadu Vizhaa' without which this interview couldn't have happened*

Photo taken in the interview session (Photo credit: Prof. Ar.Vignesh Manikandan)

**Ar. Mu.SarathKumar** – Founder of Archmate Architectural Communications. He is passionately engaged in Architectural Research and Documentation. He also pursued his passion as an architectural writer more specifically writing in his native language (Tamil), not only about architecture but also writing many short stories, essays, and poetry.
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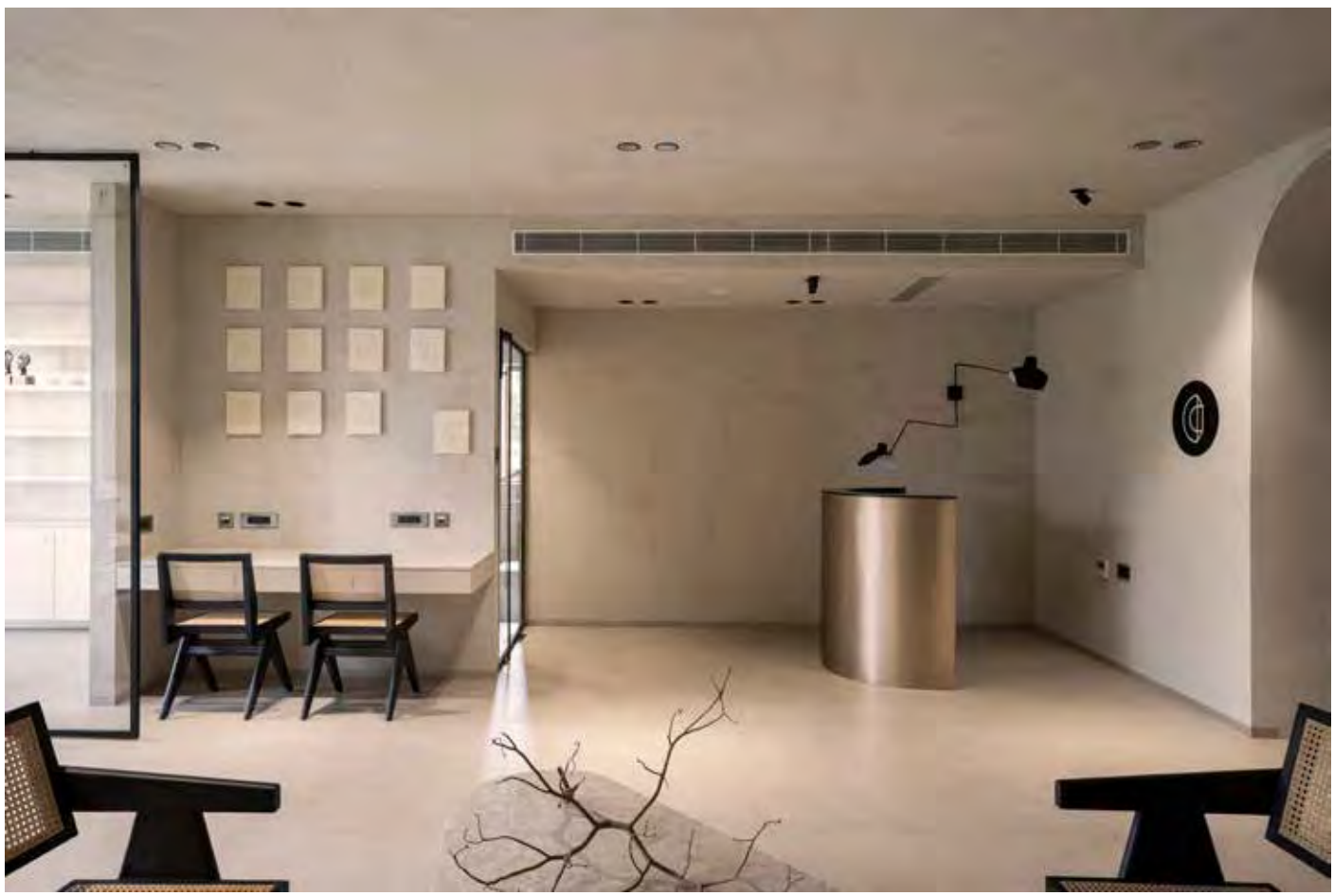
# CALICUT ARCHITECTS COLLECTIVE

**Ar. Mohammed Afnan &**
**Ar. Arun Shekar**

**Fact File**

| | |
|---|---|
| Project Name, Location | ▶ Indian Institute of Architects Calicut Centre, Calicut |
| Typology and Square Footage | ▶ Commercial, 4500 sq. ft. |
| Month and Year of Completion | ▶ September 2022 |
| Design Firm | ▶ Humming Tree |
| Principal Architects | ▶ Mohammed Afnan and Arun Shekar |
| Design Team | ▶ Nihal Mohammed, Nahala Noushad, Dhila Parveen, Arjun S Nambiar |
| Landscape Consultant | ▶ Thinking Hats Landscape Architecture Studio I Kripa K Baby |
| Lighting Consultant | ▶ Jithesh |
| Interior Contractors | ▶ Nobexe Interiors |
| Furniture | ▶ DTALE DECOR |
| HVAC | ▶ Kwiks Systems & Services |
| Lighting | ▶ AURA ELECTRIC |
| Automation | ▶ IGreenie Technologies LLP |
| Building Material | ▶ KL Abdul Sathar, Marble Gallery |
| Electrical Contractor | ▶ ELECTRICA |
| Photography credit | ▶ Syam Sreesylam |





Wall texture paint is used to create the Wabi Sabi experience

Architects Mohammed Afnan and Arun Shekar, co-founders of Humming Tree design studio, have designed a minimal yet subtle workspace, unlike a typical office, for the IIA Calicut Centre which is filled with art and subtle details.

"We drew inspiration from art galleries to create an ethos that encourages one to relax and enjoy work," explains the creative duo. For the 4500 sq ft workplace, they decided on an airy and uplifting layout, devoid of unnecessary clutter and decorated with statement lighting, earty decors curated by Humming Tree with beige textured walls.

The workspace is for creatives and architects in the city to come under one roof to celebrate design and have common dialogues.

The space is divided into three levels.

***Second floor: Dyuthi - The Art Gallery***

This level is the open-plan exhibition area cum multi-purpose hall intended to display a range of artworks and interventions by architects, artists & designers around. This level has walls finished in plaster, white paint, and a free-form layout that works perfectly for a gallery that can exhibit the works of unique young designers and artists. This space is also used to rehearse other forms of art, such as dance, music, etc, here in the picture, a series of visitor chairs sit opposite the musical instruments in a conversational layout.

***Third floor: IIA Calicut Centre Workspace***

The space is chic in detail, and exudes elegance with an arch, this interior design has all elements that make for stunning wabi sabi aesthetics.

As we enter the lofty common area longue, we're met with a juxtaposition of earthy, rustic design elements. Dark tinted pier Jeanneret accent furniture pieces dot a large area with interesting tones and texture with the larger-than-life bookshelves dark-tinted behind adorned with art pieces, sculptures & design books from different parts of the world. However, there is a twist. This wabi-sabi textured workspace design is also filled with characterful rustic art canvases in textured form. These pieces interlude and disrupt the formality of the typical workspace backdrop, creating a stylistic meld that is welcoming, warm, and earthy.

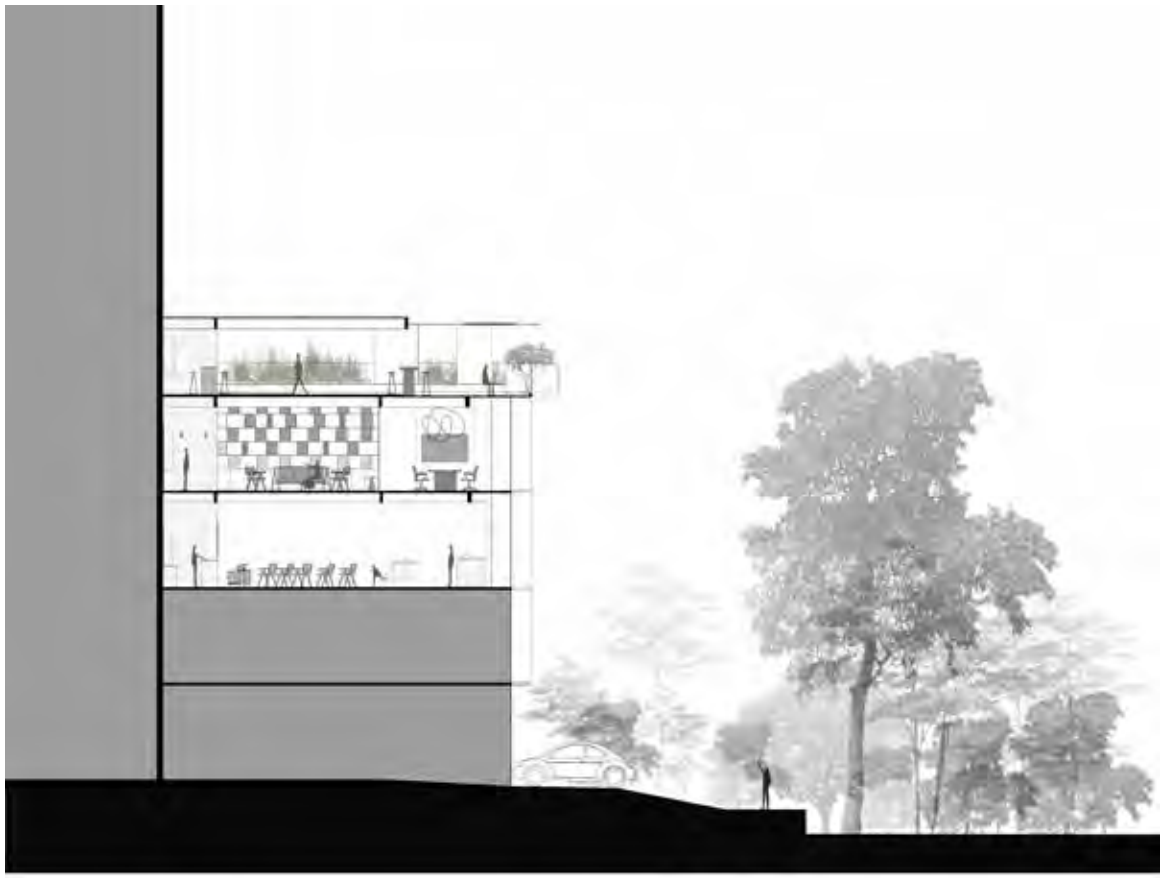
Visualised by Humming Tree, this space is a unique example of aesthetic amalgamation, where one approach does not outweigh the other. At the conference, there was a unique chessboard pattern arched backdrop for the sphere art, unusual lighting designs, a statement green planter, and a remarkable sliding door opening out to expand to a larger room.

The large, deep opening window here serves as an ideal spot for seasonal transitions and ample amounts of daylight. A live-edge marbled top coffee table fills the centre of the office space with a relaxed freeform silhouette. A unique pendant light in the conference room makes an eye-catching statement above it, whilst the theyam mask draws attention up front. Further to discover inspiration for the theyam mask as a feature wall decor.

The combination of dark tones, brass and beige prevent the room from appearing too formal. Three rustic dried canes are installed behind the sofa to create a focal point. An earthen vintage pot from the 1980s has been added as a stylistic element that complements the space.



Contrasting theyyam masks adorn the conference room



SECTION AA'

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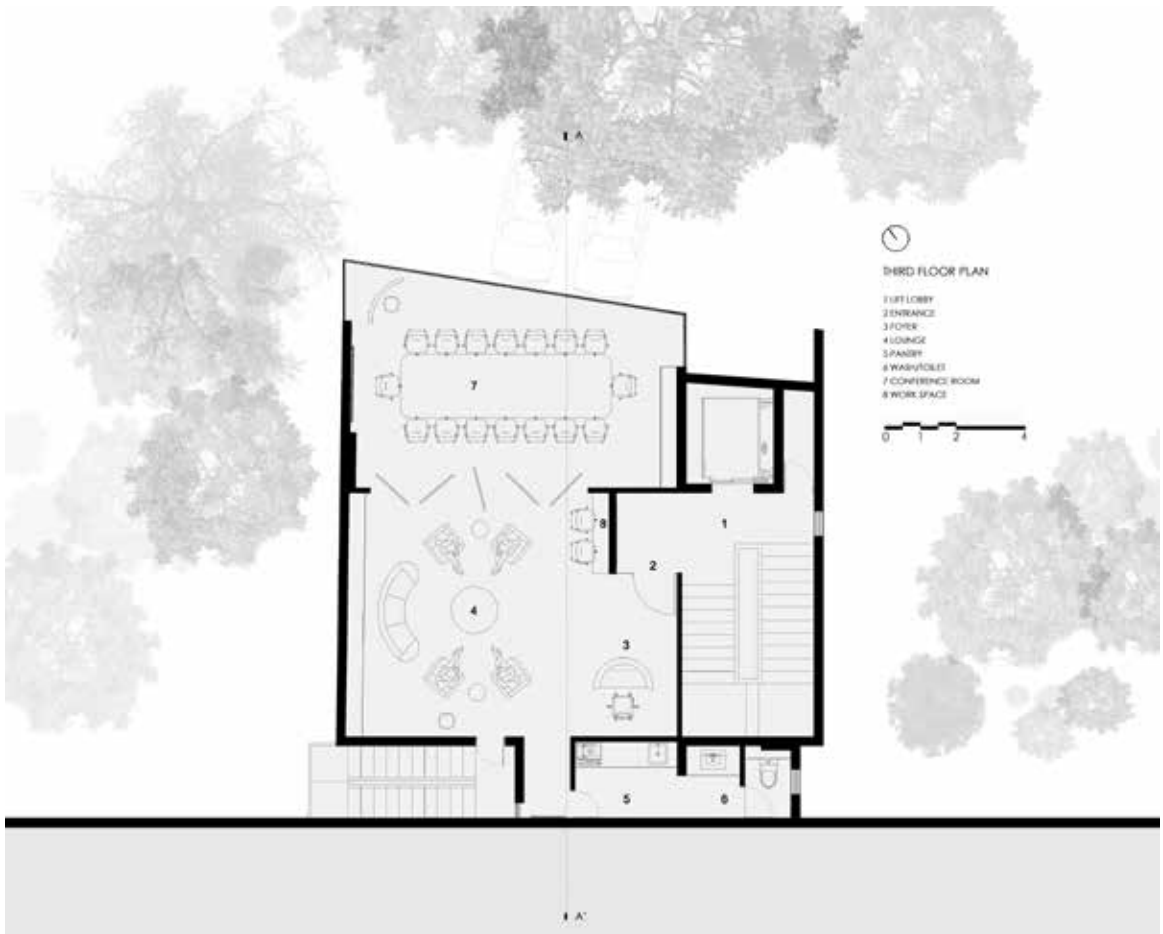


THIRD FLOOR PLAN

1 LIFT LOBBY
2 ENTRANCE
3 FOYER
4 LOUNGE
5 PANTRY
6 WASH/TOILET
7 CONFERENCE ROOM
8 WORK SPACE

0 1 2 4

A free-flowing Glass pivoted doors separate the conference from The lounge



Series of shelves, stacked with Art decor and books wrap the back of the lounge

Series of canvases by, Humming Tree backs up the workstation desk

Shelves were designed to display, art and books



Light oak finish flooring is used to bright in lightness to the interiors

Fluted panels add charm to the serving counter



Pergolas add in-depth to the terrace

The bench overlooks the lush green canopy



The brass-finished curved reception table complements the neo-light feature on the wall. The small art pieces allow the eye to wander unobstructed between open plan areas.

Large format floor tiles flow continuously from one room to the next to achieve calm cohesion, with the open bar counters overlooking the beautiful greens.

***Terrace floor: Ekta _ The Terrace***

A great addition to a stylish and unique space is a terrace, Much like the other conventional space a terrace gives you a chance to display some taste and creativity. This area allows one to spill out in the evening. Brown wooden deck flooring adds to the charm of the space. A unique circular leg bar table overlooking the green canopy makes it to open interesting conversation.

**Ar. Arun Shekar and Ar. Mohammed Afnan**

**Humming Tree**

Humming Tree was founded in Calicut, Kerala, in 2016 by Mohammed Afnan (Principal) & Arun Shekar (Artistic Director), Humming Tree examines modern and cultural designs through the lens of a contemporary context, which is more like pieces of art and these are considered holistically, which blurs the line between form and function to the point of it becoming almost indistinguishable.

The duo is renowned for approaching their work with creative gusto.

**Ar. Mohammed Afnan's** passion for design goes beyond the realm of Architecture, Interiors & product design. He heads Humming Tree, A Design Studio for Art, Architecture & Urbanism which enables hands-on experimentation on projects .

Alongside his decade long practice, he is also an artificer & a legatee of A'design Award, Milan in 2014, Igen Awards in 2017, IIID National Awards Young Practice of the year in 2020 & many more. Afnan is a force to reckon with in the architects community by serving as Secretary at IIA Calicut Center & The Country Representative of ARCASIA - Asian Committee of Young Architects.

His portfolio also includes features from various International & National platforms like VOGUE, GQ, Architectural Digest, Architects & Interiors, Elle Decor, Grazia & many more.
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**Ar. Arun Shekar,** Co-Founder & Artistic Director at Humming Tree, Arun is an avid traveler and artist, he wears his experiences on his sleeve. He stands by focusing on purposeful design aim, which heightens the user's understanding and connection with the space, believing that synergy of the two creates unique, timeless and truly experiential spaces. Arun continues with his research in conservative edge & dialogue between heritage and development. He's also been invited to deliver lectures at various design schools.

As an artificer, he is a legatee of - IIID young practice of the year -2019 & Young Designers Award 2016 at 361° design conference _Mumbai. His portfolio also includes features from various national & international platforms like VOGUE, Architecture Digest, FOAID & Elle Decor.
arun@hummingtree.in

# CATHEDRAL OF OUR LADY OF THE ASSUMPTION AT KARWAR

**Ar. Dean D'Cruz**



The eccentric entrance responding to the situation of an asymmetrical side road access

This building attempts to create a protective sky supported by tree-like structures (each tree representing an apostle) over a Roman Amphi-theatre-like space (where early Christian gatherings actually started).

One enters the building at an elevation and progressively moves down to a sky-lit alter close to the far end. This step nature also allows the parishioners a better view/ participation, where the steps can also be sat on, reducing the clutter of furniture. The higher platforms have Chapels and Meeting Halls below and the slightly lower ones were supposed to have an underground air cooling system.

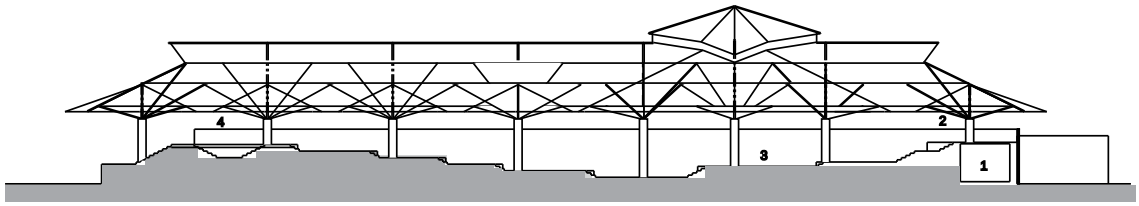
The roof is independent of the peripheral walls of the building with the gap between the two being protected by the deep overhangs.

The seating layout is flexible allowing for gatherings of different sizes from congregations of 50 beyond the Altar, 150 around the Altar, 1,000 in the tiered space and 2,000 in the open forecourt of the building, where the entrance platform becomes the Altar.

The Sacraments in Christianity are also represented in the transition through the building, starting with the Baptismal Font close to the entrance - From Birth to Death and New Life.



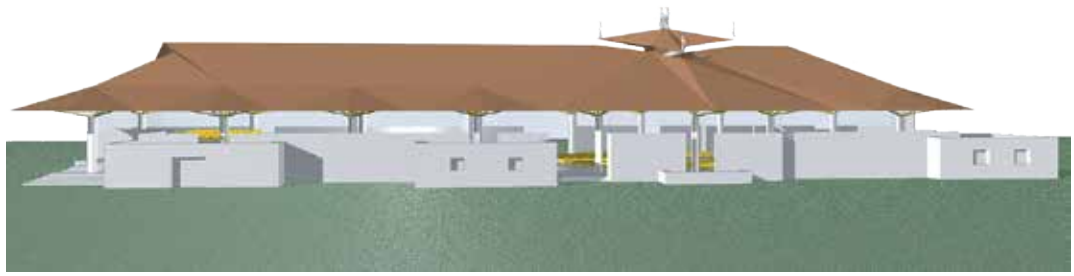
The skylight above the altar area



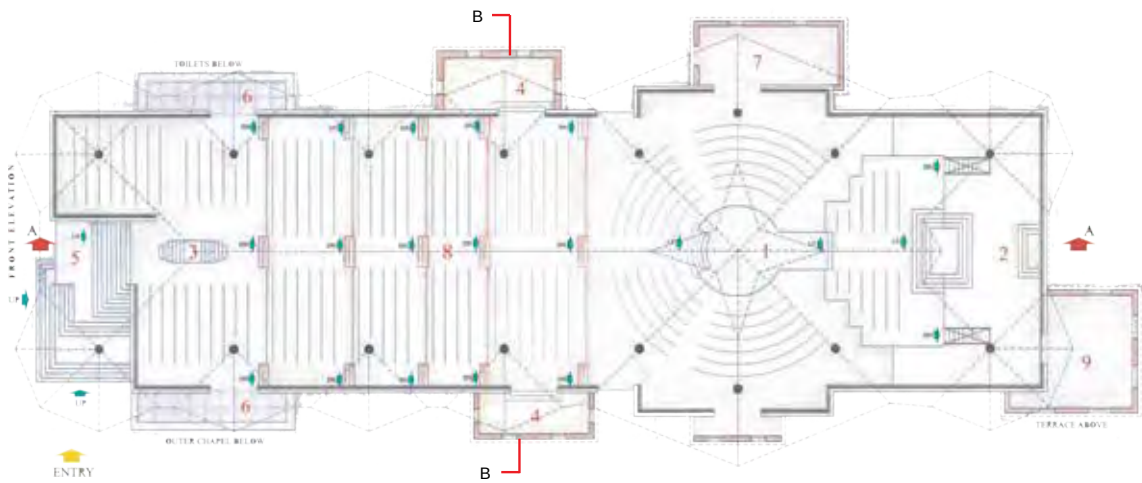

SECTION A-A

1. Sacristy
2. Blessed Sacrament
3. Altar
4. Baptismal Font

EAST ELEVATION

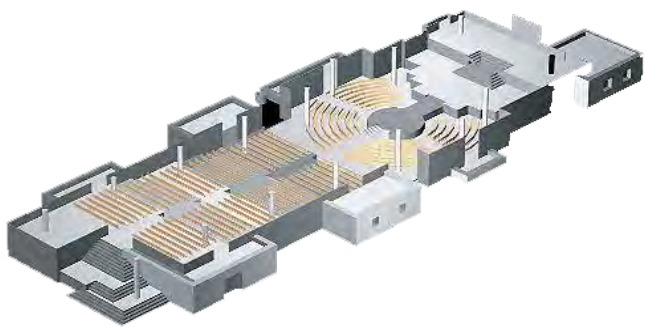


Project Elevations

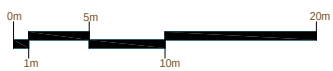



FLOOR PLAN

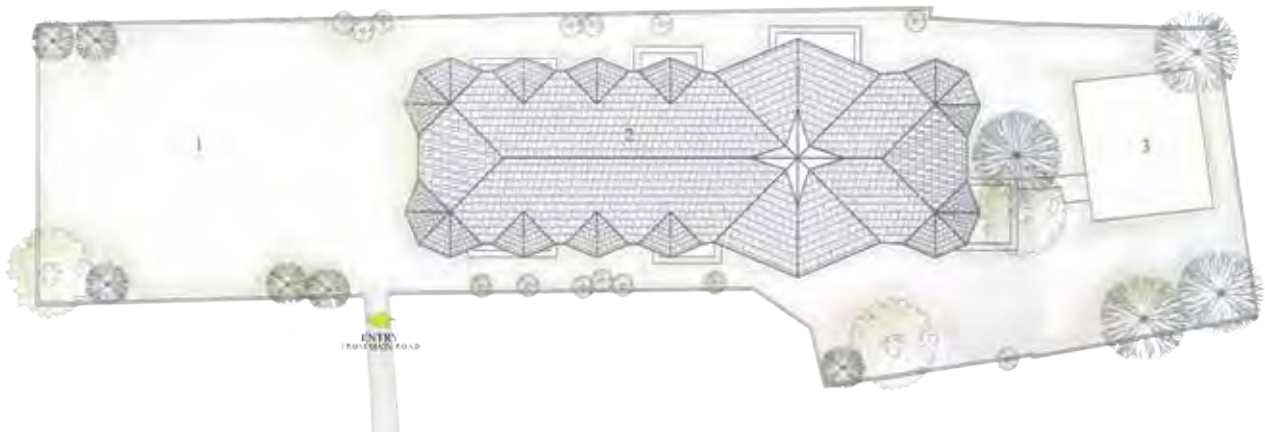
1. Altar
2. Blessed Sacrament
3. Baptismal Font
4. Chapel
5. Entrance
6. Balcony
7. Music Room
8. Central Hall
9. Vestry



SECTIONAL PLAN

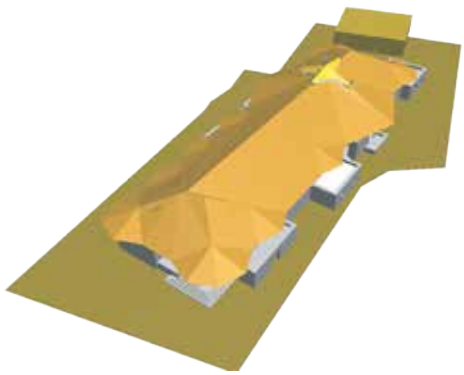



Project plans



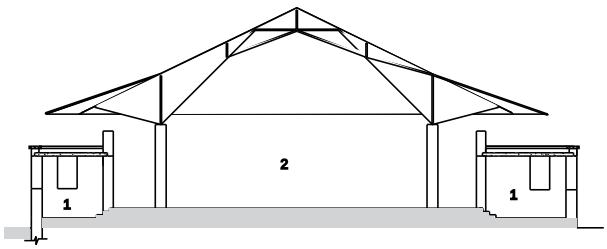

SITE PLAN

1. Open Forecourt
2. Cathedral
3. Presbytery

VIEW

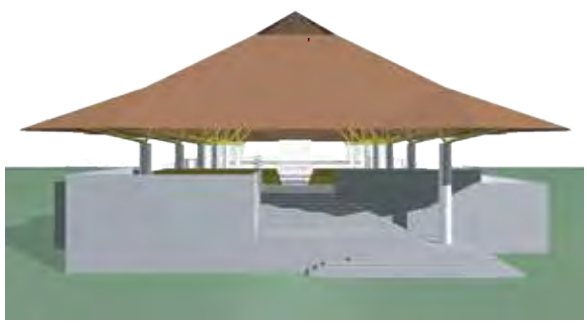
Project site




SECTION B-B

1. Chapels
2. Central Hall

SOUTH ELEVATION



Project views

The stepped altar area, designed for various rituals



Interior showing the free-standing roof on the columns where the walls are virtual screens

The generous roof also shades the Chapel's terraces



The side entrances and chapels of the Cathedral

The corner entrance, which also acts as an altar, overlooks a large ground for big feasts



Detail of the structural system, each column rests on a circular independent footing

The side view from the main road

The tiled roof and stone walls with the mesh and stained glass between

The entry to the community hall below the elevated entrance of the cathedral.

Photo Credits: **Mr Dinesh Mehta**

**Ar. Dean D'Cruz** is a Partner and Principal Architect in MOZAIC, a leading design firm based in Goa, involved in Urban Intervention, Architecture, Conservation, Product and Graphic Design. Mozaic strives to provide holistic solutions to its patrons. We explore prospects of symbiotic growth of our clients with nature and encourage sustainable practices in our design.
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# SURABHARATHI
## KK&GL PARTNERS

**Ar. Krishna Kumar**

**Fact File**

| | |
|---|---|
| Project Location | ▶ Bengaluru, India |
| Plot Area | ▶ 16,367 sqft |
| Built up Area | ▶ 22,300 sqft |
| Year | ▶ August, 2022 |
| Principal Designer | ▶ Ar. Krishna Kumar |
| Design Team | ▶ Ar. Santhosh GL, Ar. Nidhi S, Ar. Prajwal SM, Dhanush Kori, Ashwini, Ar. Sahas |
| Structural Consultants | ▶ Kalkura Associates |
| Author | ▶ Ar. Ashritha, Ar. Ketki S |
| Photographers | ▶ Ar. Vinay Shekar, Darshan B |


**Fig. 1:** Rendered view of Surabharathi Temple, Bengaluru.

As Arjuna states in the Gita, "The mind is very restless, turbulent, strong, and obstinate, O Krishna. It appears to me that it is more difficult to control than the wind." (Gita verse 34, Chapter 6).

In order to achieve a temple's crucial goal of allowing visitors to focus on God, it was challenging to create a design that would allow wandering and restless minds to find peace and sanctity, especially in a crowded metropolis like Bangalore. Since differing heights fit amazingly well to establish sanctity, the issue was thus addressed.

The site had to be divided into two zones (Fig 4) (Fig 5) in order to tackle the problem of the limited space available and the numerous criteria that needed to be fulfilled, one of which houses the temple and the other of which serves as a multifunctional area.

Each zone has its own access at different levels (Fig 5). The Yaga Shala, the Kalyani, and the temple shrine are all located in the temple zone (zone 1) In contrast, the multifunctional area includes an auditorium, a small hall, offices, and a board room (zone 2). The entrance to the temple zone is located on the ground floor, whereas the entrance to the multipurpose zone is located in the basement. The design of the temple complex has been developed in such a way that it successfully caters to a variety of user groups.

The biological context and dynamics of the land, as well as sociocultural aspirations for a temple, are all combined in this temple.

Fig. 2: Entrance to the temple shrine.

**Fig. 3:** Interior view of the temple.


**Fig. 4:** Aerial view of the Surabharathi.

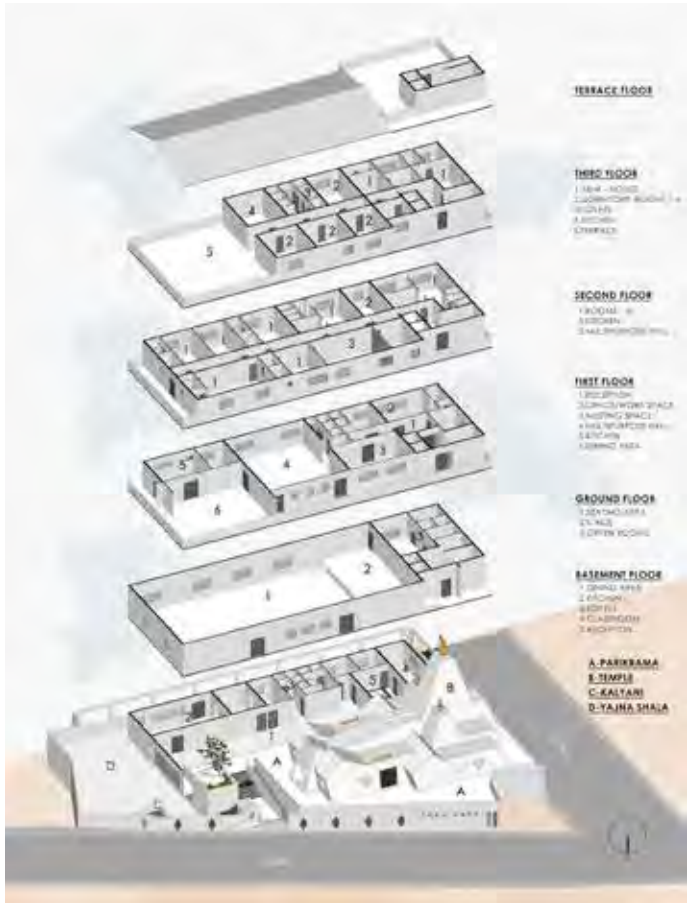


**Fig. 5:** Exploded view of the temple complex.

**Fig. 7:** The temple Kalyani.



**Fig. 6:** Temple view from the East direction.

A variety of materials were used to express the concept of the temple, which told the tale of Yashoda, who came to reprimand Lord Krishna for being caught eating soil. The exterior of the temple has pink sandstone, which was imported from the birthplace of stone and stone craftsmanship – Rajasthan (Fig 2), while the interiors are made of red granite (Fig 3). The sandstone pattern that was laid, creates a shadow that represents the temple concept with sanctity, which in turn creates a rhythm in the form that allows visitors to focus on the deity. (Fig 10)

When viewed from a distance, the way the sandstone is layered gives the impression that it is written in hieroglyphics, recalling images of the inscriptions on ancient temple monuments. It represents the passage of time and the connection to our roots. (Fig 2) (Fig 10)

Devi, the cosmic female power is the cause of the creation, upkeep, and annihilation of the universe. Goddess Sharada Devi is the main deity of the temple, hence the shri chakra is an important part of Devi worship. The shri chakra served as the inspiration for the shikara's design. (Fig 6). Blurring geometrical volumetric patterns show the flow from spiritual worlds that emanate from the temple and gracefully integrate into the interior areas.

The spatial hierarchy is in effect even before the visitor enters the temple (Fig 1). The site is positioned at a skew angle which benefits our design by allowing us to see the entire temple shrine from the edge of the road, at the North East corner of the site. The visitor's field of view switches a little distance later to Lord Venkatesh, who is within the main shrine to the right of the main deity, Goddess Sharada Devi. A short distance later, the main deity, Goddess Sharada Devi comes into focus. Even further away, Guru Shankaracharya, who is positioned to the left of the goddess Sharada Devi, enters the frame, after which the visitor reaches the entrance to the temple.

The best location for a temple, according to ancient Sanskrit writings, is a serene location near water and gardens, where lotus flowers blossom and animals can freely repose. Such areas are where gods congregate. The energy of Vedic chants and rituals resides in the sacred pond. As a result, Kalyani was introduced into the site in order to mimic the waterbody

**Fig. 8:** The main entrance to the temple.

found in ancient temples. (Fig 7) (Fig 13). A flight of steps leading down to the Kalyani is imagined as a social space in the manner of a traditional Indian ghat. It is also the site's lowest point. This is done to achieve historic significance in a holistic manner.

The design was thoughtfully created from ancient forms and combined to attain the appropriate scale in the temple. Hindu temple architecture and other historical details have been used as references, and they have been modernly interpreted. To tone down the monumentality of the structure, the temple elevation is designed in a stepwise progression. (Fig 12). As the visitor walks through the sequence of spaces, he transitions from a bright, chaotic outside to a calm interior that assures him of moving forward into the tranquil garbhagriha with the lighting and space tunnelling into the idol. This is where lighting plays a very crucial role. Light elicits emotions and balances the harmony between the indoors and the outdoors. It was used to evoke feelings of mysticism and to confer the blessedness of the space. The shrine's entrance is linked to the Garba Gudi's entrance by a

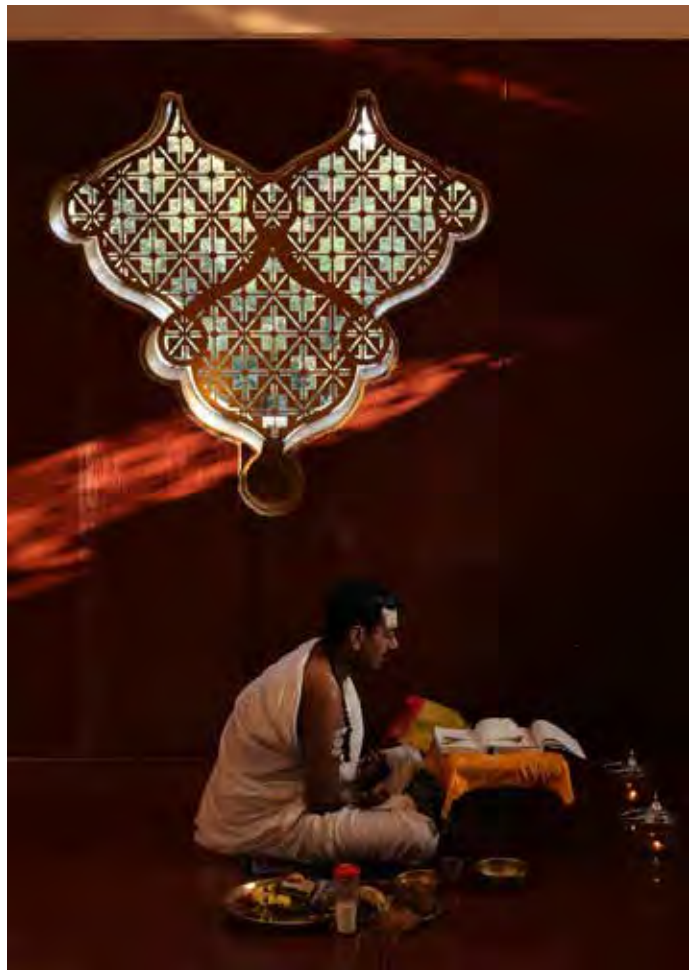

**Fig. 9:** Window with ornamental Padma Jali design depicting the play with light and shadow.

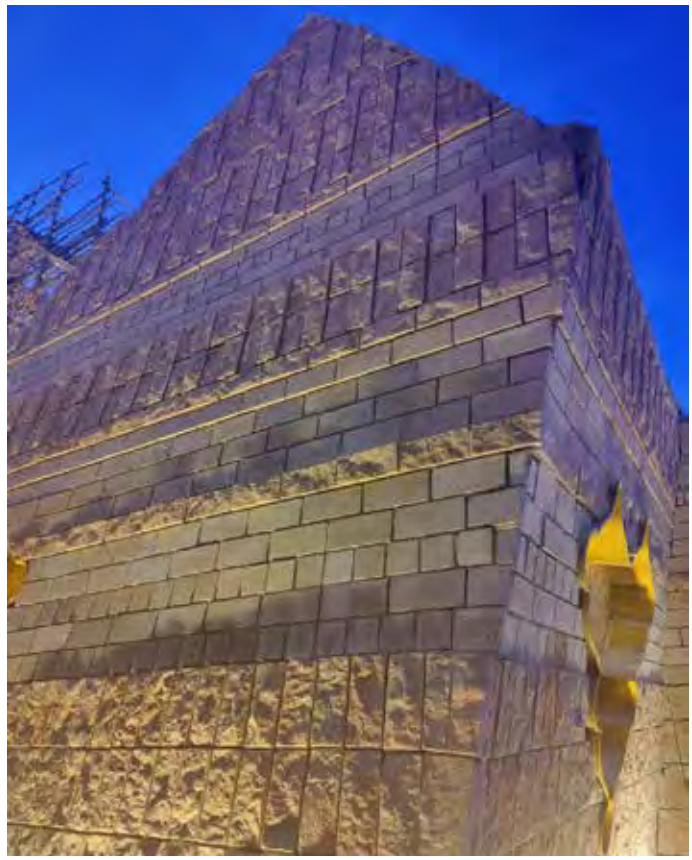

**Fig. 10:** Sandstone pattern which appears to be hieroglyphics.

**Fig.11:** Sunlight falling at the deity's feet through the skylight.



**Fig.12:** Hierarchy of the temple structure.

**Fig.13:** View of the temple Kalyani.

**Fig.14:** Skylight linking the main entrance to the Garba Gudi's entrance acting as a spotlight to the deity.



**Fig.15:** The view of the temple structure.

**Fig.16:** Interior view of the Auditorium.

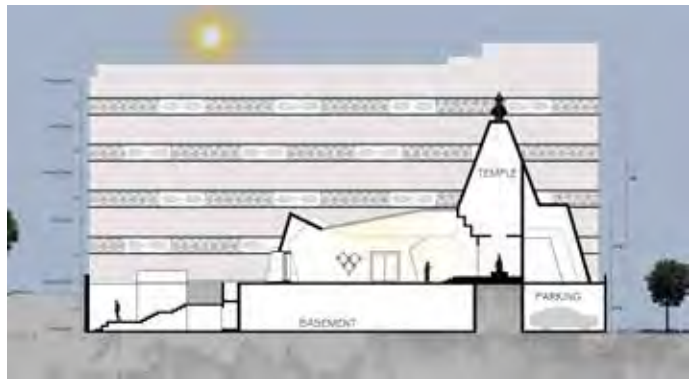


**Fig. 17:** Section 'A' cut through the temple.

skylight (Fig 14). This was created to provide the visitor with direct sunlight and a sense of sanctity Because the windows are small and have an ornamental Padma jali work (Fig 9), it also serves as a spotlight for the deity. According to Sanskrit texts, one prays to the kalasha that, at the end of his life, he will want to come and rest in peace in the presence of God. This skylight allows visitors to sit inside the temple and pray to the kalasha directly. The presence of sunlight is also a representation of nature inside the temple.

In order to achieve suitable form and function, a carefully chosen combination of elements in their proper scale and proportion have been installed, taking into account the social ties, interactions, motions, and spiritual demands of people.

The temple design connects to the energy axes from all four cardinal directions. The temple is oriented so that during the winter solstice, sunlight falls on the left side of the temple's axis through the skylight (Fig 14), whereas during the summer solstice, sunlight falls on the right side of the temple's axis. (Fig 11).

These design elements adhere to natural proportions as described in ancient treatises such as Sthapatya Veda - site analysis, Shilpa sastra - architectural and sculptural studies, and Vastu Purusha Mandala - planning that encompasses the journey of supernatural forces and heavenly bodies.

**Ar. Krishna Kumar,** a graduate of SIT Tumkur, is a founding partner of the Bengaluru-based firm KK&GL Partners. His work spans a spectrum of projects – educational institutions, resorts, offices, banks, shopping malls, showrooms, hospitals, residences and cafes among others. He enjoys taking on challenging projects of every scale, has a distinctive design philosophy, and is passionate about uplifting the community, which inspires him to broaden his horizons for a better ecosystem.
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# CHERAMAN JUMA MASJID: RESTORATION OF INDIA'S FIRST MOSQUE (2021)

**Dr. Benny Kuriakose**



Cheraman Juma Masjid, located in Kodungallur, in Kerala's Thrissur district is the first mosque in India. Although the Masjid is said to have been built in AD 629, historians attribute it to the 11th century. It is known by various other names also such as Cheraman Perumal Masjid, Cheraman Palli and Cheraman Mosque. The Masjid stood as a testament to Kerala's ability to assimilate different cultures, beliefs, and traditions under one roof. The restoration of this historic Juma Masjid is being carried out under the guidance of Dr. Benny Kuriakose as part of the Muziris Heritage Project.

## Cheraman Perumal Nayanar and the Story Behind India's First Mosque

Cheraman Juma Masjid history dates back to 6th century. There are numerous regional and tribal variations of the story of the last Chera king who abdicated his throne, converted to Islam, and his subsequent pilgrimage to Mecca. The gist of this legend known to almost all in the region of Kodungallur is as follows.

Cheraman Perumal, the reigning King of the Chera Empire, with Kodungallur as its capital, had experienced an unusual dream in his sleep. He dreamt of the moon being split into two halves. He consulted astrologers far and wide and none could give him a satisfactory explanation until a group of Arab traders passed by. They explained that the dream was the celebrated miracle of Prophet Mohammed. Because of this explanation, Cheraman Perumal decided to visit Mecca. He divided his Kingdom and handed over the different territories to local chieftains. He then left for Mecca. After meeting the prophet, he embraced Islam. While returning home, after spending a few years there, he fell ill and died in Oman.

Before his death, he wrote letters to the local chieftains. When Malik Bin Dinar and his followers reached Kodungallur, the letters were handed over to the local chieftains. They got permission to construct a mosque in Kodungallur and the first mosque in India built here. The mosque was constructed in Kerala's traditional style. Malik Bin Dinar was the first Ghazi of Cheraman Masjid. After a while, his relative Habib Bin Malik became the Ghazi at Cheraman Masjid. He established mosques in different parts of Kerala. Cheraman Juma Masjid also called as Cherman Perumal Masjid was the first in the series. The old tombs at Cheraman Masjid are believed to be that of Habib Bin Malik and his wife Khumarriah.


An Old Photo of the Cheraman Juma Masjid *(Archives)*

## The History and Legacy of Cheraman Juma Masjid

The mosque is very historic. E. Ismail, former Head of the Department of History at Sir Syed College, Kannur University, writes that "Kerala can be considered as the earliest Islamic frontier in India."

He explains that the legend about the construction of Cheraman Juma Masjid in 629 C.E. was that it happened during the last years of the life of Prophet Mohammed. He concludes that these mosques built along the coastal areas were originally meant for the Arab merchants who visited the coast often. (Taken From "Bringing back structural past of a religious monument" Article of The Hindu Newspaper)

Now, Cheraman Masjid has grown to be the place of prayer even for hundreds of people who were substantially from non-Muslim communities. The Masjid authorities have encouraged this and the secular credentials of the mosque are dearly preserved. During the month of Ramzan, Iftar offerings are being made by the non-Muslim communities. Many people from other religions are conducting "Vidhyarambham" of their children at the mosque. Another unique feature of this Masjid is an ancient Kerala-style oil lamp that is said to have been kept burning continuously since the inception of the Masjid.

An Old Photo of the Cheraman Juma Masjid
*(Image credit: Archives)*

## Through the Ages of Cheraman Mosque

It is believed that the Masjid was first reconstructed in the 11th CE and since then it has undergone a lot of renovations. During the earlier reconstruction works, the front part of the mosque was demolished to pave for the changes. Due to the social changes, concrete additions, domes, and minarets were added in the 60s. Fortunately, the ancient part, the core of the masjid made up of timber was retained, leaving us with a bit of the original glory.

The retained part of the Masjid over the years.
*(Image credit: Benny Kuriakose & Associates)*

The Cheraman Perumal mosque after the renovation in 1994.
*(Image credit: Benny Kuriakose & Associates)*

Over the years, the Masjid underwent a lot of additions that dishonored the historic aspect but were made to expand the space of the mosque. Another renovation was done in 1994 to accommodate the increasing population of devotees but then soon enough, the original structure of the mosque was planned to be revived owing to its history. Luckily, the core part of the old mosque is still intact.

**Significance of Cheraman Masjid in Muziris Heritage project**

To regain the historical and cultural glory of Muziris, the present-day Kodugalloor, The Government of Kerala launched the Muziris Heritage Project. Muziris Projects Ltd. is concerned with the restoration of a list of historic buildings that showcase the essence of an important period in the history of Kerala, known for its trade and cultural values, and the Cheraman Masjid restoration is its most hopeful conservation project involved.

Cheraman Juma Masjid, located in the Muziris Heritage Project area is the first Masjid built in India. The Masjid has unimaginable capacity for its expansion as a tourist attraction due to its location and the religious and cultural significance it owns. Due to the continued restoration efforts in a sustainable manner, the Muziris has regained its old glory of the old spice route that explores the multicultural character of the port city and has flourished to become a major tourist destination. The Cheraman Masjid validates this essence of the Muziris Project with its long history and tells an enchanting tale of the multicultural society of Kerala.

**Bringing a Religious Monument Back to Life**

As an ode to the legacy of the Masjid, the proposal to do the conservation of the oldest mosque in India as a part of the Muziris Project aimed to recreate its former architectural character through restoration. Conservation of the Masjid's original structure is vital, as it is a structure of heritage value having a long history associated with it.

The restoration work was inaugurated by Kerala Governor Arif Mohammed Khan on 10th November 2019. The unpleasant additions of Cheraman Masjid, the oldest mosque in India are being removed and restoration of the same is carried out. Although we started working on the project in 2012, the conservation works started in the year 2019 only. The demolition of the unsympathetic additions to the mosque has been completed and renovation works are progressing fast. Please see the images of the demolition of the unpleasant concrete additions.

Demolition of the later additions of the Cheraman Juma Masjid
*(Image credit: Benny Kuriakose & Associates)*

Demolition of the later additions of the mosque
*(Image credit: Benny Kuriakose & Associates)*

Demolition of the concrete additions of the Cheraman Mosque
*(Image credit: Benny Kuriakose & Associates)*

**Challenges Involved in the Conservation Project**

Our office had taken great pains to work out a solution to do this project which was done a few years ago. The main issue in removing the recent additions to the mosque was that the capacity of the people will come down from 2000 to 300. Since the members of the mosque realized that the additions were not suitable for the mosque, they decided to remove all the unpleasant additions. So we suggested having a canopy ie, a high light roof on the top of the historic building or a basement, as the second option. The mosque authorities went with the second option. The masjid members have a great connection to the Mosque, so they didn't prefer any new construction. The present mosque authorities agreed on the decision to restore the mosque on the condition that a newly built basement would provide sufficient space for an increasing number of believers to conduct worship, without affecting its architectural integrity. The basement can serve as a prayer hall leaving the original structure undisturbed. The main challenge was to convert the basement which might look like a car park into a sacred space.


*Figure 2: Plan showing the proposed layout of Masjid*

Plan showing the proposed layout of Cheraman Juma Masjid
*(Image credit: Benny Kuriakose & Associates)*

Since it is a historic building and although several modifications have been made, we have sought the help of historians and archaeologists. Former Director of Archaeology Dr. Hemachandran S has assisted in this regard.

**The Proposed Plan for the Restoration of Cheraman Juma Masjid**

As a part of infrastructure development for the Masjid, the following changes are proposed:

- **Addition of Cheraman Juma Masjid Interpretation Centre,** to educate visitors on the history surrounding the establishment of the Masjid. This would be an informative feature for all those visiting the place of worship. This addition would be made to the ground floor of the existing Islamic Museum already present on the premises.
- **Cleaning and revival of the pond,** to ensure that the serenity of the premises is maintained.
- **Paving the pathway and the front yard with stone,** due to the high footfall the Masjid receives.
- **Provision of a lift,** to make the building universally accessible.

Tourism-related services, such as water supply, waste disposal, communication, and electricity supply are required for the comfort of the tourists visiting the Masjid. Since the proposal aims at increasing the footfall and tourist activity in and around Cheraman Juma Masjid, the following public amenities are proposed for the same:

- Construction of an **Amenities Building:** This building will include toilet facilities and rest areas in addition to other tourism facilitation services like cloakrooms, ATMs/ money exchange, waiting for areas, cafeteria, drinking water outlets, etc.
- **Information Centre:** a service within the Masjid premises to help and inform visitors of timings, events, activities, etc which may also house a souvenir shop.
- **Information Signage** will be provided throughout the Masjid premises to supplement the visitors with useful information.

Proposed Site Layout *(Image credit: Benny Kuriakose & Associates)*

Addition of a basement to expand the bearing capacity of the Masjid, to be used as a Prayer hall *(Image credit: Benny Kuriakose & Associates)*

Proposed view of Cheraman Juma Masjid
*(Image credit: Benny Kuriakose & Associates)*

Proposal to restore the mosque to its original state
*(Image credit: Benny Kuriakose & Associates)*

3D View Showing the proposed stone paving on pathways
*(Image credit: Benny Kuriakose & Associates)*



- Additionally, **CCTV cameras** and other security equipment and installations to be provided in all public areas to ensure the security of the premises.
- **Firefighting equipment** such as hydrants and extinguishers are to be provided along with smoke detectors.
- Other necessary services such as water supply, sanitation, electrical conduits and wiring, lightning arrester, etc., would also be provided.

**The Proposed Architecture for the Restoration of Cheraman Juma Masjid**

To convert the basement to a spacious area, the idea is to use tiles of a different character and also to use the lighting in a different way to create the feeling of the mosque inside. Also, we decided to give a different traditional look to the mosque rather than the normal Persian character possessed by most of the Indian mosques. A new Islamic History Museum depicting the history of the mosque and Islam in Kerala is being set up in one of the buildings in the nearby compound. Following were the key features of the Conservation of Cheraman Masjid:

- Addition of a basement to expand the capacity of the Masjid, to be used as a Prayer hall.
- The sloped roof corridors were provided around the mosque similar to its original design.
- Windows have been introduced to give some natural light to the basement.
- Decorated niches will form the highlight on the wall.
- The interiors will be provided with dramatic lighting.

Different Stages of Cheraman Juma Masjid Restoration *(Image credit: Benny Kuriakose & Associates)*

Cheraman Juma Masjid Post Restoration *(Image credit: Benny Kuriakose & Associates)*





**Various Phases of Restoration and the Present Status Of Cheraman Juma Masjid**

The conservation works are going on very fast mode. The following photographs show the various phases of restoration works of Cheraman Masjid progressing on the site.

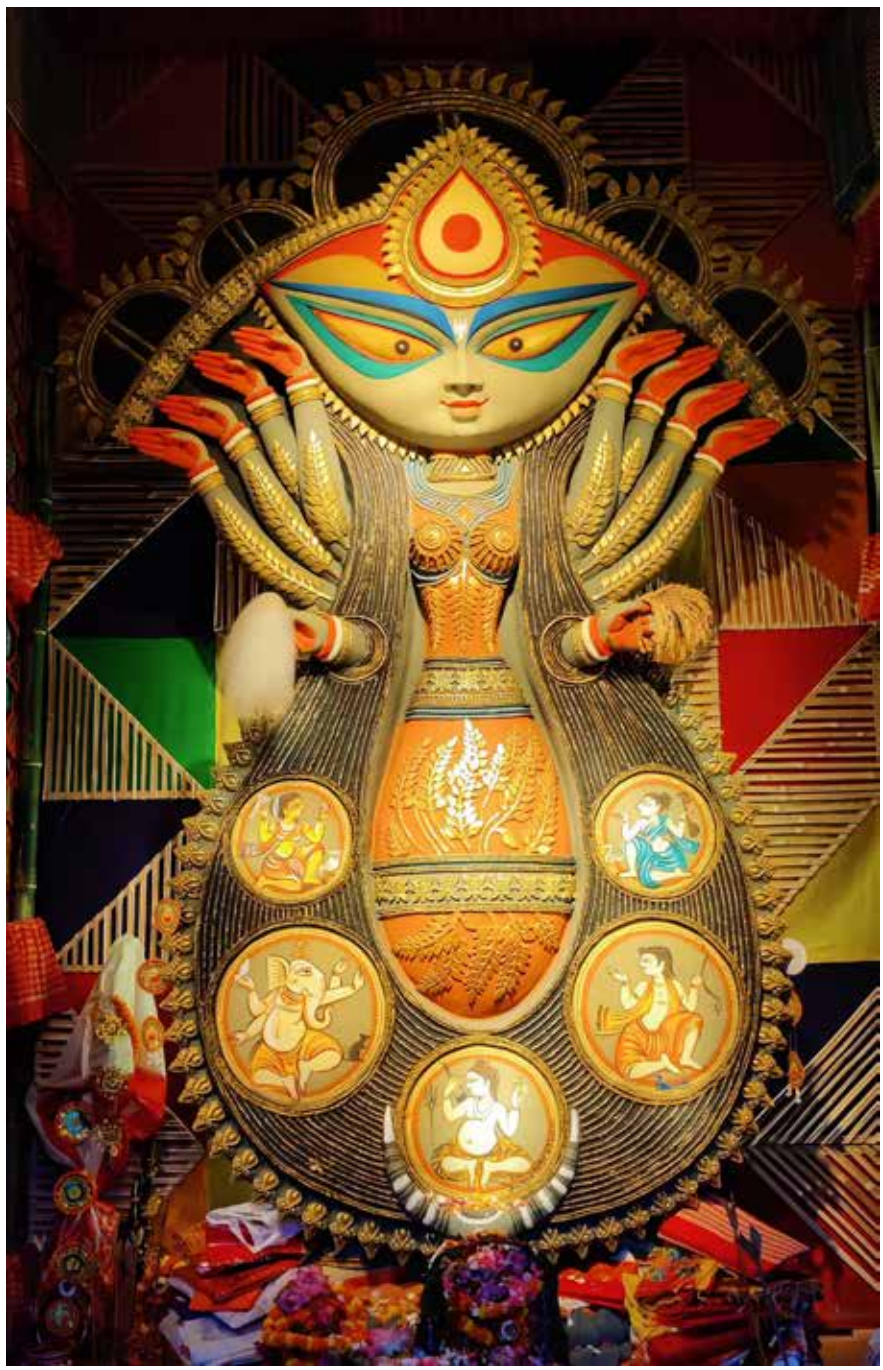
Restoring the authentic character of the historical Cheraman Juma Masjid that has survived more than a Millenium is not an easy task, especially when several renovations and reconstructions have been done over centuries which has affected its originality. But we hope that the Masjid regains its full glory in the near future. Its conservation and development will cherish the visitors to the Muziris Heritage Project in the area and contribute immensely to the local community by increasing employment opportunities and encouraging social unification and awareness.

Conservation of heritage and historic resources is a green solution, which helps in making economically and environmentally responsible decisions to give rise to sustainable development. Thus the conservation of the oldest mosque in India would ensure that the diverse cultural and architectural heritage associated with it, visible to future generations.

**Dr. Benny Kuriakose** started his career in 1984 and received basic lessons in architecture under the tutelage of Laurie Baker. He received the Charles Wallace India Trust Award for a Master's degree in Conservation Studies from the University of York, UK, and his Ph.D. from the IIT, Madras. Taking its roots in vernacular architecture, he has developed expertise in architectural conservation and design of new buildings and now runs a conservation and architectural design consulting firm in Chennai.
bennykuriakose@gmail.com

# THE COUNTLESS SILHOUETTES OF DIVINITY

**Ar. Chinnu S. Kumar**



**Picture 1:** The idol of Durga Devi at Hatibagan, North Kolkata

As the train pulled out of Jaipur, I reminisced about my previous trips to Kolkata. The City of Joy has never failed to surprise me. During my first visit to Kolkata, I had been just another visitor who had only dropped in at places of tourist interest. The grandeur and charm of the Colonial era definitely astonished me. But what stole my interest most profoundly was the city's streetscape in the backdrop, fossilized, as it were, in the Colonial era. The giant banyan trees with green foliage and thick brown roots gripping the crevices of red Colonial edifices were nothing less than a painting adorning the streets of Kolkata. On my second visit, I wasn't just a tourist: I was there to explore the quintessence of the city.

During my second visit, I landed in Kumortuli to witness the sculpting prowess of the precinct. The entire neighbourhood was occupied by potters who were busy creating figurines of gods and goddesses. The lanes of Kumortuli were a walking gallery of idol-making at various stages. The skeletal structure was made with bamboo stuffed with straw and husk to define the body parts. The effigy was then smeared with a smooth paste of clay reinforced with husk. The head of the effigy was moulded separately with more intricate details before being attached to the torso. The idol was dried in the sun, after which it was painted and decorated. Thousands of idols were taking shape in the lanes of Kumortuli as the city was prepping for festivals. It was on this day that I decided to return to Kolkata for the biggest festival of all time – the Durga Pooja.

According to the sacred text of *Devi Bhagavatam,* Mahishasura desired a blessing that would prevent both men and gods from being able to kill him. Lord Brahma granted him his boon for his impressive, long penance. Mahishasura then set forth to subjugate all three realms. Devastated by the defeat of Indra's army in Amravathi, the devas decided to consult with the trinity– Brahma, Vishnu and Maheshwara, to find a resolution. Legend has it that Durga Devi was rendered with the powers of the Trinity to kill the demon Mahishasura. The ten days of the pooja represent the ten days of battle in which the demon disguises himself in varied forms to confuse the Devi. On the first day of Mahalaya, the Devi transcends from heaven with God Ganesh, God Kartikeya, Goddess Lakshmi and Goddess Saraswathi to earth. It is on this day that the eyes of the idols are painted. The idol is then adorned with bright attire and heavy jewellery and colours. On the sixth day of Shashti, the Devi is brought in through a grand procession to the pandal, where she is awakened for the poojas of Saptami, Ashtami, Navami and Dashami. On the tenth day called Dashami, Durga Devi returns to her husband after beheading the demon in its original form as a buffalo. The city symbolises and celebrates this victory of good over evil with great pomp and show.

This year, I landed in Kolkata on Ashtami, the eighth day of Durga Pooja. Drenched in the rains, the city was comparatively deserted after the Saptami Pooja. The bamboo scaffoldings crept through the street façades to drape in hoardings of advertisements ranging from mouth fresheners to clothing. A thin strip of Colonial heritage peeped all along above the hoardings to make up the skyline. The bamboo scaffoldings paused at every other lane to grow into hefty gateways leading to a pandal within. Pandals are knockdown structures constructed during Durga Pooja made of bamboo and cloth drapings with decor. representing temple enclosures to house the deity. The idols of some pandals were visible from the road, whereas some were tucked in. Tin sheets, two storeys in height, grew on either side of the roads to mark the way for pandal-hoppers. By afternoon, I was all set for pandal-hopping myself, with a scooter and an entry pass, which I obtained through a friend's help. We rode through the lanes of Hatibagan in North Kolkata, not knowing where to stop. Every pandal has an entry pavilion with an information desk and podium for trophies. Finally, my friend stopped at a pavilion with numerous trophies, proclaiming it to be 'good'. Numerous organisations, from the state government to business corporations, award these trophies based on various criteria, including themes, inventiveness, aesthetics, the material used, and so forth. The queue for the public had crawled into eternity, so we hurried into our VIP entry lane, which was empty. A long tapestry of paintings dropped down over a colossal tower

**Picture 2:** The idol of Durga Devi at Dum Dum Park


**Picture 3:** Entry of the pandal at Hatibagan, North Kolkata

**Picture 4:** The pandal by Sreebhumi Sporting Club near Lake Town

of straw bale stood in front of me, masking the idol that demarcated the entry into the pandal. Beyond this tower was a mediatory space of bamboo scaffolding, colourful flags and painted pots leading to a beautiful idol of Durga Devi. Unlike the other idols of Durga Devi, this was an abstraction of the Goddess beholding her four children and slaying the buffalo head.

After attending a few pandals, I realised that this was quite similar to an art biennale. Here, a single event of *Mahishasura Mardhanam* is reinterpreted by each artist in a unique fashion. A meticulous curation of every décor and pandal is required to appreciate the artwork truly. To fully comprehend the concepts of each piece of art, guided tours are a fantastic option. Having inscribed on the UNESCO representative list of the intangible cultural heritage of humanity, the artist has drawn inspiration from a larger ambit, including the works of international artists like Van Gogh. The most awe-inspiring was the imposing replica of St. Peter's Basilica erected by Sreebhumi Sporting Club amid the densely populated neighbourhood of Lake Town. The entry was an incarnation of St. Peters' Square with its colossal statues and Corinthian columns. This led to the breath-taking interiors with biblical paintings and intricate plaster works to lodge the 13-feet-tall idol of Durga Devi with other deities in the altar, completely cloaked in 22-carat gold. The concept of pandals and idols is not just mere artwork but also comes with a story of associated values that sensitizes the public on various social issues. The looming pandal of Santoshpur Avenue South Club was a window into the struggling lives of survivors post-acid attack. The bright LEDs that lit up the acid bottles along the sides with posters were a strong statement to ban the sale of acid. With candid photographs of around 250 workers, the pandal of Tala Prattoy was a walk of fame dedicated to the service sector, from the diggers to carpenters for their skill and hard work that contributed to the pandal. While some pandals reflected self, some portrayed the journey of the mass. The motifs soared from the womb to the boundless expanses of cosmic space and its cyclical rhythms, all in harmony.

Once restricted to the palatial residences of the elite, the pandals have now come down to every lane and neighbourhood of the mundane. The ambience of the pandal environs during the night is an otherworldly experience. Like giant serpents, the crowd moved in search of the countless silhouettes of divinity, never-ending and never stopping. With friends and families, the streets were crowded with cheerful faces prepped for the grand festival. Every woman looked like an embodiment of the Goddess herself, donned in the heaviest jewellery and finest clothing, especially the *lal par sadaa* saree. The streets lined with vendors serving Bengal delicacies and curios direct the pandal hoppers to uncharted destinations. The endless avenues of LED-lined walkways lit up the city in the shapes of clouds and birds to welcome the hoppers with amazement. The bouquets of light from the avenues and aroma from the dhunuchi transports oneself into the celestial corridors of the festivity with great zeal and fervour. The festival calls a halt on the eve of Maha Dashami with the departing ceremony of the Goddess marked by the procession of idols of Durga and the other deities to the ghats near the River Ganga for immersion. We gathered along the Hooghly River near Prinsep ghat. Shortly after the *bhasan,* the immersion ceremony, the partly dissolved effigies were moved and taken to the banks of the river by the workers of the Kolkata Municipal Corporation. These effigies would later be collected to be upcycled and reused. After the celebration, when people return to their homes, the spirit of the festivity still lingers in every fallen décor of the city that sways in the breeze from the river where she was immersed.

All images courtesy: **Author**

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# THE EVOLUTION OF RELIGIOUS ARCHITECTURE OF GOA

**Ar. Ketak S. Nachinolkar**



For its size as one of the smallest states of the Indian Union, Goa, as a place, has quite a diversity in its cultural landscape. This is the result of centuries of a chequered historical evolution. This forms another feather in the cap of the vast cultural diversity and richness of the Indian subcontinent across its length and breadth.

One of the most visible facets is the religious architecture of the place considering the temples, churches and mosques which dominate the landscape of the place. Religious structures across the spectrum of the communities are a place of congregation for the community as a whole. Thus, these impart a sense of socio-cultural identity for the respective communities. These were therefore accorded the most prime places in the landscape and the best of resources were used, pooled by the community together. It is well documented that in historically pre-industrialized societies, socio-cultural and economic activities of the populace revolved around these institutional centres.

Notably the temple devotee members and the village cooperative community members were the same and controlled not just the temple but the civic affairs of the village and its agricultural activities and other allied civic works and societal welfare.

Go's long coastline offered a wide variety of building materials : wood from the lush forests, laterite stone from the spurs of the hillsides of the Western Ghats and lime from seashells on the coast, besides clay and sand. Climatic conditions of the tropics with heat and heavy monsoons proved a major challenge towards ensuring durability of the structures built. This was responsible for the evolution of building techniques to counter the challenges faced.

The territory of Goa as we know it at present was defined only about 200 years ago by the Portuguese who had colonised it since the 1500s, and expanded their territory over the period their occupation to its current outline. Geographically, the place formed part of the Konkan region and was, for a major part of its early history, a territory which formed part of the kingdom ruling from the Deccan plateau, governed by a local chieftain or a governor.

Its coastal location on the Arabian Sea and the deep inland navigable rivers changed the course of its history in the 11th century. This saw maritime trade from the Gulf converge at its shores till the Portuguese took over in 1510. This further affected its cultural ethos in much of the recent times.

The earliest evidence of settlements in Goa are found in the valleys up-river in the east, at the foot of the ghats. The freshwater rivers here led to the highly saline coastline downstream towards the sea. Besides, these areas were naturally sheltered from the vagaries of the harsh monsoons on the open coast. These were during the infancy of the building techniques and the natural choice for the most durable of structures, such as places of worship were the natural caves. The lateritic hillsides were relatively soft, with intermittent hard rock and soft soil which could be scooped out.

Monolithic rock-cut caves at Khandepar (8th - 9th century CE)

Mahadev Temple, Tambdi Surla, Sanguem, Goa (11th – 12th century CE)



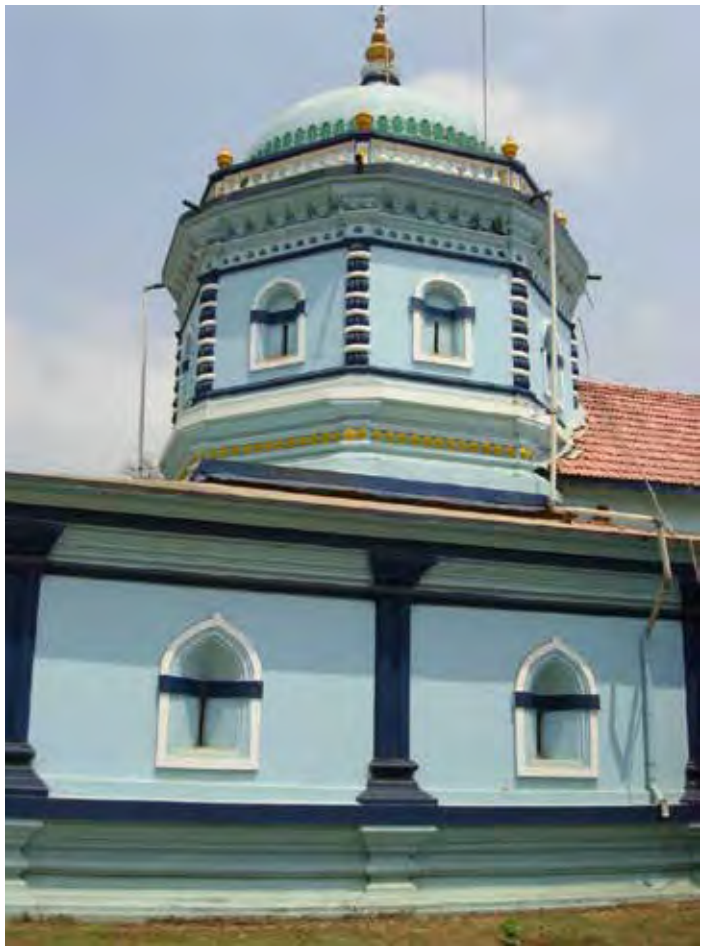
There are instances of natural caverns as well as rock-cut caves with orthogonal chiseling of the rocks. Examples are found at Arvalem in Sattari, Rivona in Sanguem, Priol in Ponda, Naroa and Lamgao in Bicholim, etc. Some of the caves are attributed to Buddhist influences of the 1st century BCE, based on archaeological finds. But there are overlaps over the long period of time. Nevertheless, these have an aura of mystery surrounding them due to their natural settings.
One of the earliest known built temple structures is the archaeological remains of the Shiva temple at Chandor dating to the 3rd - 4th century CE (Gune, 1978, p.59). This structure was built of mud bricks extensively.

With stone quarrying still in primitive stages for building of structural temples, instances of monolithic laterite rock-cut structures were seen at the place especially in Khandepar which are dated to 9th century CE (Mitterwallner, 1983, p.32). These structures were durable being made of natural rock. Some temples have pyramidal shikharas added on them at later stages. These were two-roomed structures with the inner space as the sanctum and the outer as the place of assembly.

With the development of stone quarrying techniques there are a number of structural temples built of laterite stone masonry. Significant among them are the Mahamaya Temple of Nundem (5th- 6th century), the Mahadev Temple of Kurdi (7th- 8th century), Nagesha and Keshava temples of Priol, Narayan Temple of Madkaim and Saptakoteshwar Temple at Opa (9th -10th century) which have survived. They followed the layout of the earlier examples and were two-roomed structures. Notably these structures used basalt or granitic stone in details like columns, door portals, etc. which required fine carvings with the limitation of the laterite stone.

As mentioned above, maritime trade changed the face of the place politically as well as socio-economically with the sudden prosperity it brought. The reign of the Kadamba dynasty (11th -14th centuries) was significant in this scenario. The capital city shifted downstream to the mouth of the Rriver Zuari with the sea, at present-day Goa Velha, which emerged as a port city. Among the glorious instances of the period is the Mahadev Temple of Tambdi Surla (12th- 13th Century A.D.) which stands apart being fully constructed of the grey basaltic stone (talc chlorite schist) and signifies a certain maturity in style. This structure followed influences from across the contiguous territory of, the most notable being the stepped pyramidal shikhara. Basalt was highly durable and not available locally in abundance, but had to be transported from across the Deccan plateau.

The period after the Kadambas during the 15th century was a tumultuous one with the invasions by various Muslim rulers including the Delhi Sultanates under Allaudin Khilji and then under Mohamad Bin Tughlaq, the Bahamanis, and the Adil Shahis of Bijapur. There was also a brief interim period under the Vijaynagar kings. Apart from some mosques which have survived from these times, not much from this period is available as far as religious architecture is concerned but nevertheless leaves its mark on the long history of Goa.



Pumpkin motif at the Shri Navdurga Temple at Borim and the Altar of the Weeping Cross at St. Monica, Old Goa



The various villages of Goa were all very organized under the institution of the gaunkari or a village cooperative. These outlined the various works involved as well as duties and responsibilities and traditional rights of the village clans, dating from several centuries earlier. The villages were dotted with a number of temples around which socio-cultural and economic activities of the populace revolved. These institutions were common and looked after all aspects of the respective villages. Means of revenue for sustenance and maintenance of the temple as well as the village as a whole were all organized.

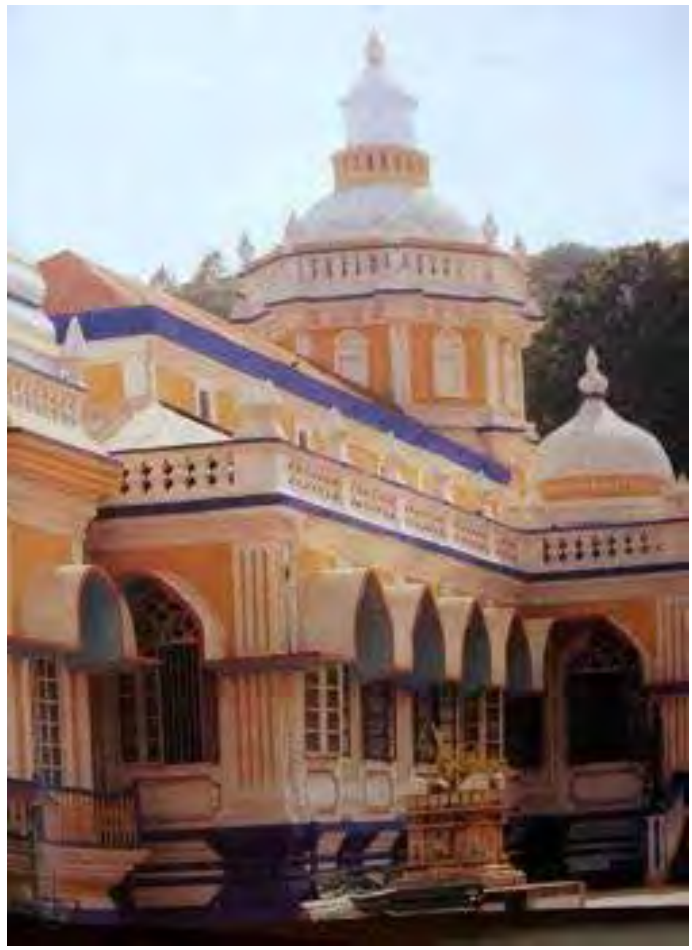
The Portuguese arrived in Goa with their capture of the capital city, than at Old Goa, in 1510. Besides their objective of trade, missionaries also arrived to spread their religion. What followed was a total upheaval for the local populace with forced mass conversions and religious persecutions during the 15th-18th centuries. The temple deities were displaced overnight and had to be carried to safer locations away from Portuguese-controlled territories where they were re-established.

This period also saw a new dawn and peak in the establishment and the erection of churches with the arrival and the consolidation of Portuguese rule. Churches, as a building typology, were new as there was no built precedents. The models were imported by the Portuguese colonizers from according to whatever was in vogue there.

Church building also got a major boost with the activities of the Christian missionary orders who settled in Goa and harboured among them inter-rivalries in building the best and the most opulent of structures to signify their presence. The churches, though conceived on European prototypes, had to be built using local materials, which required local technology and craftsmen adept at these techniques evolved over centuries.

Besides, the Portuguese builders of these structures, were many a times not professional architects or craftsmen, but rather priests or military men who were not too well-versed with the canons of the styles and the systems of proportions and others architectural principles. These were left to the discretion of the local artisans who introduced their age-old, time-tested sensibilities into the systems, thus hybridizing the European architectural models. At the same instance, many of the architectural forms and elements in the churches were alien to the local architectural vocabulary of the place. These provided the local craftsman new forms to work with and refresh their skills which were on the ebb due to the disruption in the cultural scenario with the social displacement of the population with persecutions, migrations, etc.

Church of O.L. of Divine Providence, Old Goa (1666 CE), modelled after St. Peters, Rome



Manguesh Temple, Mangueshi, Priol (18th century CE), showing dome with a lantern



As time went by, temple-building saw a resurgence during the later half of the 18th century once the religious fervour of the Portuguese receded. This was also a period of reformation in Portugal and its territories under the prime-ministership of Marquis De Pombal, who in 1775 declared social equality among the subjects of the Portuguese kingdom. This was seen to usher in a significantly new social order of security.

Thus many a temple deities which had been removed were now being relocated and re-installed in their original positions in all their glory. By now, temple-building in the territory had had a break of almost three centuries due to continual socio-political upheaval. With a resurgence at this stage and with new forms and elements to work with, this phase saw a re-interpretation of the European architectural elements seen in the churches. These cross-influences were aimed at achieving an eclectic aesthetic mix for the structures so constructed. These sported brackets, mouldings, domes with lanterns, etc. among many other features, which lent these sacred structures a unique architectural essence, unparalleled in the immediate region and the world over. This uniqueness sprung definitely springs from the sense of acceptability in those days without any reservations against these forms which were originally alien to the indigenous traditions.

The challenge in the current scenario remains the conservation of these structures. With liberalization and the development of the economy, there are funds available like never before. There is also the necessity to realize imminent threat of alterations and total replacements in several instances, along with the need to understand the principles of this architecture before intervening.

All images courtesy: **Author**

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# TEMPLES OF KERALA; AN APPROACH TO CONSERVING THE LEGACY -THE PHYSICAL AND THE METAPHYSICAL.



**Ar.Vinod Kumar M.M. and Ar. Gopika Jayasree**

## Introduction

The Temples of Kerala have a unique architectural vocabulary that is adapted from the Dravida tradition, strongly influenced by the geographical and climatic factors of the state. Several political, economic, and cultural factors too have come together to influence the evolution of Kerala temples which are classified as the early, middle, and late phases by scholars. Though we see a steady development in scale, complexity, and built form, there are certain values that have remained constant through all these phases. These spiritual abodes were considered living entities and the physical form had a deep relation and meaning that was enhanced by the metaphysical. They have always been an apogee of sustainable construction practices and centres of knowledge systems. The traditional conservation practices too respected these values. The paper examines the traditional concepts in the conservation practices followed in Kerala temples and why today an informed and meticulous conservation process becomes inevitable for the continuity of this legacy.

## Traditional concepts in today's scenario

### The ideology

Today, according to modern conservation principles, utmost importance is given to the authenticity and integrity of a structure and favours minimal intervention, preserving the built fabric and its patina. The Euro-centric philosophy perceives time as a linear progression that has a precise beginning and a consequential end, whereas Indian scholars have a different understanding of time and space which considers heritage to be a metaphysical being. The cyclic notion of time imbued in the Indian consciousness influences its conservation philosophy as well. It stresses the concept of continuity rather than preservation and respects the inseparable values of the material and its spirit. The traditional conservation process- *jeernodharanam* follows the basic concept that growth and decay are inevitable and every object has to undergo change. Thus, it never favoured an attempt to freeze a structure in a timeline instead it facilitated graceful ageing.

The timber mukhapu at Vadakunnathan temple under conservation a) before b) after *(Sourced by Authors)*

a) Craftsmen working with copper sheets b) lime plastering in progress. *(Sourced by Authors)*



**Building materials**

Kerala temples were constructed with sustainable materials like mud, lime, timber, laterite, and stone with minimum disturbance to the land and environment, creating a balance of strength and energy and possessing a unique aesthetic. Today, for repair works, and also for new additions, a lot of modern building materials like cement, concrete, and steel are widely used. These additions often distort the balance that existed structurally, spiritually, and aesthetically.

**Relationship with nature**

Many of our ancient temples were simply sacred groves, where worship was offered towards the spiritual space or land with all the living beings in it. Even with the evolution of structural temples, there existed a close relationship with nature in a multitude of forms. The temple ponds were effective systems of water management and the premise had a rich biodiversity. Construction was minimal and care was taken to leave the ecosystem undisturbed. Many practices today fail to recognize this relationship and in turn lead to severe damage to the subtle balance between nature and architecture.

**The Divine and the Devotees**

The Temples were conceived as the abode of God and never as a congregation space for devotees. The many frugal penances that the devotees had to undergo, like walking long distances barefoot to the temple, and performing different types of austerities and rituals, were all essentially intended to take the mind and body closer to the Divine. Today, we add new structures inside the temple complex for

Thiruvazhiyode temple, Palakkad. (1998) *(Sourced by Authors)*

Kalasamala Siva Vishnu temple, Kunnamkulam, Thrissur has a collection of critically endangered tree species known as Kulavetti (Syzygium travancorium) included in the IUCN Red list. *(Sourced by Authors)*

Rituals during the kalasa ceremony *(Sourced by Authors)*



the convenience of devotees, and very often they are done insensitively to the existing fabric. Thus, it is important to have controls and a set of guidelines for carrying out any sort of construction work in temples.

**The spaces and rituals.**

The temple architecture contained and facilitated a complex system of rituals which is inevitable in maintaining sacredness. Today, while carrying out construction works in temples, we often fail to understand the mutual dependency of space and rituals, the primary activity that should be prioritized. While attempting to change the architecture that existed for centuries, we are causing irreplaceable damage to the system.

**The Centres of knowledge**

Temples existed as a holistic space, containing and connecting many streams of traditional knowledge systems in Kerala. There were traditional guilds who were trained rigorously for each area of work like carpentry, metal work, sculpting, mural painting, etc. and the Kerala temples are the result of years of hard work by these skilled craftsmen. This exquisite art and architecture should be researched, and discussed, as it helps us to understand our history and identity. When we disturb them for development, we lose a primary source of knowledge about our past.

**Conserving temples of Kerala - Case studies**

Two case studies, *jeernodharanam* of Sri Vadakkunnathan temple complex and that of Koothambalam at Guruvayoor

The ritual of utharapooja. *(Sourced by Authors)*

Staging of Koodiyattom inside a koothambalam *(Sourced by Authors)*

Mural painting at Vadakkunnathan temple *(Sourced by Authors)*

Vadakkunnathan temple complex after conservation *(Sourced by Authors)*



temple are discussed as a successful attempt in carrying out an informed process in today's time. Both projects had been recognized by the UNESCO Asia Pacific Award of Excellence and Award of Distinction in the years 2015 and 2020 respectively.

**Conservation of Vadakkunnathan temple**

Sree Vadakkunnathan Temple, Thrissur has an important place among the traditional Kerala temples. A structural assessment of Sree Vadakkunnathan Temple conducted in the 1990s showed that no major repair works have been recorded for more than 100 years. Though the Archaeological Survey of India had initiated several minor repair works, the need of the hour was a 'planned restoration' of the temple complex in its entirety. After a detailed condition assessment that examined the structural and peripheral conditions of the temple, it was decided that a *Jeernodharana* was indispensable for restoring the temple. The first step of the restoration process was to identify and involve craftsmen skilled in the use of traditional materials using traditional tools and methods. More than 500 craftsmen covering different areas of expertise have been a part of the restoration program.

The temple conservation process itself is incomplete without the elaborate traditions and rituals which are performed with the same respect and vigour as they were hundreds of years ago. *Ashtamangalya prashnam* - a practice where the astrologer declares the actions that need to be taken for satisfying the deity, followed by *anujna* which is a ritual to seek permission from the deity for the initiation of work, was conducted. Each member of the temple building was revered for the role they played in the structure and various rituals were in place to honour them. *Uttarapooja* is one such ritual that is conducted before placing a new uttaram or beam after repair. The culmination of *jeernodharana* of a particular shrine was marked by the fitting of *thazhikakudam* (finial). It involves fixing the *kudams (finial) after* filling them with *navratnas,* paddy grains, gold, and copper coins.

The significant materials used for the temple construction were timber, lime, stone, and copper. A traditional herbal preservative, ashtakootu was applied to the wooden members used in the temple construction for protecting them from termites and other weathering issues.

Conservation of Sree Rama shrine a) work in progress and b) after. *(Sourced by Authors)*





**Conservation of Guruvayoor Koothambalam**

*Koothambalam* at Guruvayoor is one of the fourteen surviving temple theatres that are used for the ritualistic performance of Sanskrit dramas. Drastic changes in the sociocultural conditions led to diminishing patronage of the art form and thus the theatre fell into negligence. In 2020, a meticulous conservation process was carried out by a multi-disciplinary team to restore the structure and maintain it with sanctity. Thorough research helped to understand the structure and its cultural, architectural, and spiritual values. An extensive documentation and condition assessment was done and a detailed conservation plan was developed. Identification of skilled craftsmen with expertise in timber, stone, and copper was done. The process was planned and phased through an integrated approach involving all stakeholders and the craftsmen.

The thick layer of paint on the copper roofing was cleaned to reveal the original texture. The deteriorated portion of the stone plinth was removed and mended using a similar stone and was cleaned and pointed. The repair and replacement of wooden members were done for the existing roof of *Rangamandapa* (the stage). The entire electrical system was re-designed by electrical and lighting specialists. Old murals on the ceilings and wall plates of the *rangamandapa* were preserved. New rough granite stone flooring compatible with the structure was laid on the interiors as the original flooring was not found.

a) Guruvayoor koothambalam exterior after conservation. b) Koothambalam before and after conservation *(Sourced by Authors)*



The conservation works carried out involved many complicated procedures, which optimally combined the age-old systems and new technologies together paying due respect to the historic built fabric. Thus, the whole conservation project was successful in capacity building and upgrading the traditional skills of craftsmen. The *Koothambalam* will remain to be in use for staging *koothu,* thus helping to improve longevity.

## Conclusion

Our temples were built by great masters and it would be ideal if the original structures are kept intact. They were designed as the central node of our towns and villages, intending to add identity and positivity to the entire area. When the work of creating or conserving a temple comes down from a very refined philosophy to the mere notion of 'construction, it needs to be checked. It is important for the temple boards, to develop guidelines for the holistic conservation of the temples. This would also help in preserving the age-old building disciplines of our land which needs informed patronage.

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# VISHWAKARMA

## THE DIVINE DESIGNER

**Ar. Tushar Sogani**

*"Vishwakarma, the Lord of the arts, master of a thousand handicrafts, carpenter of the gods and builder of their palaces divine, the fashioner of every jewel, first of craftsmen, by whose art men live, and whom, a great and deathless god, they continually worship."*

Vishvakarma is a craftsman deity and the divine architect of the devtas in contemporary Hinduism. Son of the God Brahma, Vishwakarma is said to have designed the entire universe. In Hindu mythology, Lord Vishvakarma is regarded as the "God of Architecture". He is considered the divine engineer and the principal architect of the universe and the chief deity of all architects and engineers.

Ancient Hindu texts have many references to Vishwakarma as the architect of the Gods. Images of the God Vishwakarma represent him with four hands, wearing a crown and gold jewellery. He holds a water-pot, a book, a noose and craftsman's tools in his hands.

The Mahabharata describes him as "The lord of the arts, executor of a thousand handicrafts, the carpenter of the gods, the most eminent of artisans, the fashioner of all ornaments and a great and immortal god.

Hindus widely regard Vishwakarma as the god of architecture and engineering, and around in September every year is celebrated as Vishwakarma Puja—a resolution time for workers and craftsmen to increase productivity and gain divine inspiration for creating novel products. The Vishwakarma Puja Festival is perhaps the only festival celebrated in honor of the architect god Vishwakarma. The literal meaning of this day is the Day of Solidarity of the Five Rishis (wise men). This day is celebrated by devotees who believe that it is not Lord Vishwakarma's birthday as they think that God is immortal and cannot die or be born. According to mythology, this is the day when his five sons of Lord Vishwakarma gathered and called his father. This day is celebrated in memory of this event. This ritual usually takes place within the factory premises or shop floor, and the otherwise mundane workshops come alive with a fiesta. It is celebrated with a lot of fervour and zest in factories and Offices.

Hindu mythology is full of Vishwakarma's many architectural wonders. Through the four yugas, he had built several towns and palaces for the gods.

In Satya-yuga, he built the Swarg Lok, or heaven, the abode of the gods and demigods where Lord Indra rules. Vishwakarma then built the Sone ki Lanka in the Treta Yuga, the city of Dwarka in the Dwapar Yuga, and Hastinapur and Indraprastha in the Kali Yuga.

The Mahabharata has it that King Dhritrashtra offered a piece of land called Khaandavprastha to the Pandavas to live on. Later, Lord Krishna invited Vishwakarma to build a capital for the Pandavas on this land, which he renamed Indraprastha. Legends tell us about the architectural marvel and beauty of Indraprastha. The floors of the palace were so well done that they had a reflection like that of water, and the pools and ponds inside the palace gave the illusion of a flat surface with no water in them. Apart from these mythological buildings & cities, he is also credited with designing Vajra, Sudarshan Chakra & Pushpak Vimanas.

So what we can take out from all this is the fact that as a designer, architect or engineer whatever the formal modern world may call us, our endeavour should be towards the creation of such work which not only meets the requirements but leads to delight of the user, are practically timeless, & contextual. Lord Vishwakarma is considered immortal & any architect could also become such with his / her work being remembered throughout the ages.

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# THE ZERO DECADE

**Ar. Eunice Sara Jojee**

Zero Studio is a creative design studio formed in 2013, at Manjeri, Kerala by architect duo, Hamid MM & Hafeef PK. Known for the renowned Art created, the founding partners have carved a beneficent niche that stands for simplicity and minimalism, while principally paying respect to its locales. The simple ideology of creating only what is wanted, within the perimeters of its vernacular designs, was their Masterstroke. They always hesitated to contain their thoughts and process into a certain ideology or philosophy, as they felt they were too young to own one, and feared it would limit free thinking, and thus experimenting. To try, test, navigate; To converse, appreciate, create; while graciously leaving a signature of their own, can be defined as their style.

The Studio was joined by Ar. Shabna K by late 2013 and has since then been the tranquil voice of the atelier. From their foremost year, the team has been winking awards. Their primary one being *'The Temple of Knowledge – A tribute to the father of Malayalam* – Thunjath Ramanujan Ezhuthachan', at Tirur. It won Commendation award at the 'IIA Kerala State Awards for Excellence in Architecture' in 2014, and was later shortlisted in 2016 again, under the Architecture Unbuilt category at National Level. The design spoke of the need to create spaces for the upliftment of the Malayalam Language, where the building and environment were articulated to create a dramatic scenery; When the user plays the role of an actor, the built form transforms into the character, and the surrounding dense foliage with the background vocals of birds, set the story; a poem translated through the art of architecture.

Of all their accolades, the most recent and finest contribution to the guild is 'The Farm Village – Centre for Organic Living' project named aptly as *'Reviving the spirit of a place – Story of An Abandoned Laterite Quarry',* where their comprehensive vision for Landscape design is expressed. Shortlisted for the esteemed 'IIA National Awards for Excellence' in 2020, and later bagging the 'Golden Leaf at IIA Kerala State Awards in the Landscape category', 'The Silver Leaf for Responsible Architecture' in 2021, and the most recent, 'Kohler Bold Design Awards' in December 2022, are a validation of the vision and wisdom the studio embraces.

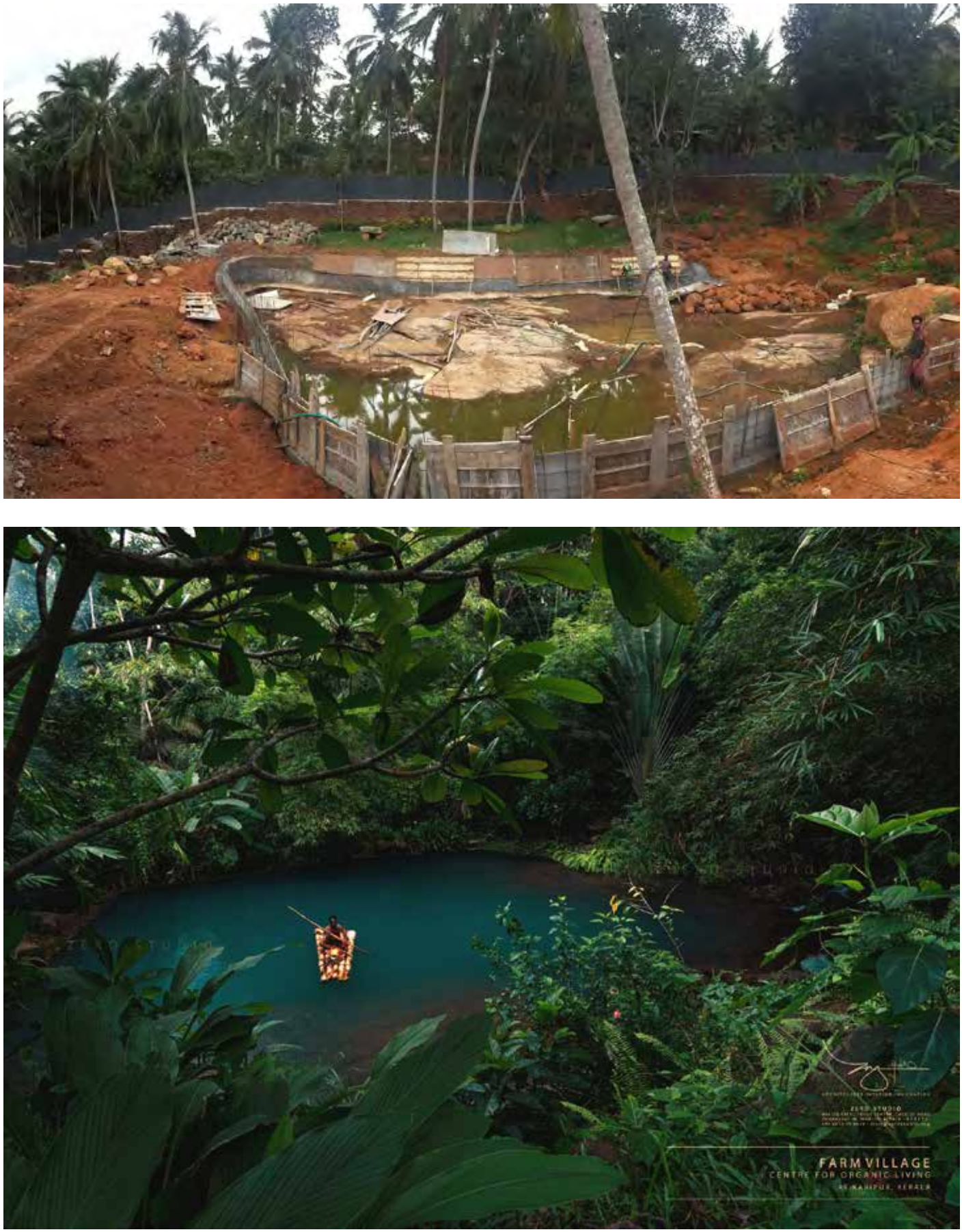
**Ar. Hamid MM**

**Ar. Hafeef PK.**

**Ar. Shabna K**

The proposal was to create, rather recreate a cover of greenery to an abandoned laterite quarry, which the client, strikingly reminiscences the change from serene green (the initial foliage-filled land) to harsh red over his growing years. The client who was an entrepreneur and agriculturalist was an appropriate fit to the quest that followed.

The methodology involved unlearning the typical exercise of choosing exotic plant varieties in landscape design. The team extensively studied on local vegetation, for the best growth possibilities, to induce organic growth curated from an innately picked palette of indigenous flora and fauna; with the backup of expertise from ecologists and professionals from the agriculture department. A constructive pointer in this stage was finding out that the deep excavation for extracting laterite rocks had actually brought the water table closer, which helped the soil be fit for planting with the help of some preparatory treatments. What followed next, was an exciting and enlivening experience of replicating the appeal of a forest; from waiting for the natural growth of ordinary weeds to infiltrating the soil to prevent erosive and drainage problems, to identifying springs beneath the laterite bed in the soil where two major ponds were dug, which would later become the lifeline of the microcosm. A careful selection of plant varieties was advocated to curate the perfect palette with local, resilient varieties of plants. It is commendable to note and publicise, that all of the plants had shown tremendous growth and maturity in just around five years from the initial planning stage. The environment now invites, birds, pollinators, insects, etc and thus is a contributor towards enriching native biodiversity.

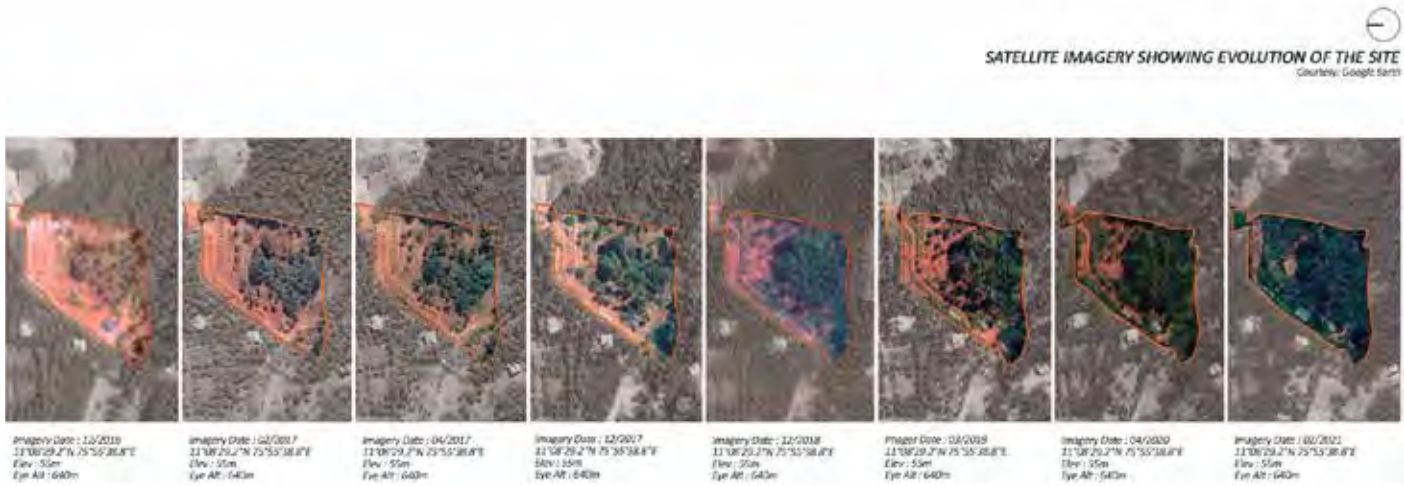



The Farm Village, Before/ After imagery *(Courtesy – Zero Studio)*


The farm Village, before/after imagery *(Courtesy – Zero Studio)*




The Farm Village, How the canvas changed to form an Interesting Vista *(Courtesy – Zero Studio)*




The Farm Village, Satellite imagery of Evolution of Site from 2016 - 2021 *(Courtesy – Zero Studio)*


Edavani, Master Plan developed for the Hamlet *(Courtesy – Zero Studio)*

Edavani, The visualised view of the settlement *(Courtesy – Zero Studio)*

Edavani, The settlement *(Courtesy – Zero Studio)*

The patient and organic plan, enabled a multisensory landscape, which was perceived through the senses of sight, hearing, smell and touch. Their design split the visual canvas into vistas, which aided the 3-acre plot to look bigger than it actually is, suggesting that the baton was rightly given to a bunch of hardworking and bonafide team of individuals. Their expertise has envisioned the *genius loci,* which will instill outsiders' excitement and surprise at every hike of this site. This project, a highly experimental one, was a thesis of its own and a specimen in formulating a prototype that could inspire designers globally.

Their notable other multi-disciplinary interest lies in building homes for the user, keeping the context in mind.

*'Edavani – Redefining a Tribal Hamlet at Attapadi',* Kerala, is a socially driven noteworthy project up their sleeves, where the approach intimate's a policy of Inclusive Architecture. Here the prime concept was to build delicately, using indigenous materials through a participatory approach. The studio took immense care, to not get held up in a one-size-fits-all solution, but instead intends to bring back materials like bamboo, reed, mud, etc to the forefront; materials that the tribal settlement felt most comfortable with, as opposed to concrete jungles, respecting their ideology. The built form would mimic only a better technology of their existing setups, keeping in mind their skills, to refurbish or renovate as and when needed without depending on an agency or government.

Apart from houses/units, the master plan also accommodated a primary school, a health centre, and accommodation facilities for the teachers, doctors, and other service personnel who come to the village.

The basic module contains three major spaces, the hall, bedroom and kitchen surrounded by verandah (thinna); very similar to their earlier homes, except that the structure will be raised on wooden poles. The notable quality of this design was the ability to expand the structure, based on combinations as and when the family grows.

Edavani won 'IIA National Awards for Excellence in Architecture' in 2020 under Architecture Unbuilt category, and was shortlisted at the State level in 2021.

Coming to Residential Architecture, Zero's vision for Housing is inspiring because it reminds us to be undoubtedly clear about the approach; one which state that architecture should not be indicative of the financial status but instead of the context it sits on. As opposed to the commercial viewpoint of categorising the same for a specific income group, the mentors focused on details and apt selection of local materials, which bring about the proposed character and quality to a space. Hence, they do not just become structures, but a home, with spatial quality irrespective of the cost involved. The notion of wanting its architecture to be discussed and debated ranked higher in their minds than equating a project to its cost. *'Mausam – the house of seasons',* is a prototype in this regard and also an attempt to provide affordable housing to the user, where functionality and need play the key role.

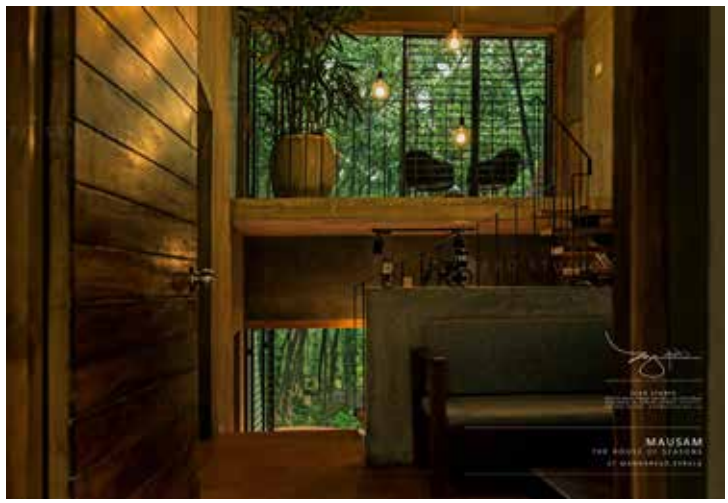
Set in the backdrop of existing rubber plantations in Mannarkad, Palakkad, Mausam was designed along the contours, as a part of the site rather than an object in focus. The use of laterite bricks, terracotta tiles for roofing and flooring, natural timber, remodelled furniture, and jalis built a vernacular palette that converses harmoniously with nature. The beauty in simplicity and bare finishes, keep the charm alive revealing the wishful wait of the seasons, and how architecture communicates with its visual tales and narratives.

Mausam won 'The Ace Architect – Ace Alpha Awards' under the Residential-Affordable category in 2017, made it to the 'Merit List of 2018-19', and was nominated for the 'NDTV Design and Architecture Awards' in the same year.

Unlike Mausam which was set in a serenade of locale tableau, Halaman - The Courtyard House, was located within the dense fabric town of Aluva, contained in a rather small plot of 10 cents, abutting streets and neighbouring houses on either side. The design strategy customed here was thought–provoking; To build on maximum ground cover, while opening the house inward towards an internal courtyard, hence the name – The Courtyard House. The introduction of the large waterbody, with a floating deck to sit on transforms the ambience and quality of space within.

The delights in the course of development, like the extended bridge in the stair landing, the private balcony overlooking the mango trees, the terrace planters, the bay windows and the fore room have created a pleasant scene to partake in activities like reading, meditating, dreaming, or simply doing nothing.


Mausam - The House of seasons, during Season 1 *(Courtesy – Zero Studio)*




Mausam, The Interior Levels *(Courtesy – Zero Studio)*


Mausam, The Rear Elevation during Season 2 *(Courtesy – Zero Studio)*


Mausam, The Front Elevation during Season 3 *(Courtesy – Zero Studio)*

Halaman - The Courtyard House, Front Elevation *(Courtesy – Zero Studio)*

Halaman - The Courtyard House, View from the Courtyard *(Courtesy – Zero Studio)*


Halaman - The Courtyard House, The Open Kitchen, Living and Dining *(Courtesy – Zero Studio)*


Kadalas - The Sea View Cafe, Exterior Facade *(Courtesy – Zero Studio)*

Kadalas, View of the Setting Beach *(Courtesy – Zero Studio)*

Kadalas, The Design of Furniture Line *(Courtesy – Zero Studio)*

From these two residential projects discussed it is clear that both Mausam, and Halaman were not built for the opinions of the public, but rather only for what the client needed. If in one, the brief was to build an optimum space for the owner and his wife that accommodated their children once in a while, the other was built considering the luxurious space they intended to have, but nothing in display for the public to watch, rather only for the users to enjoy. Also, both houses, though recently built, don't charade or seek attention, rather seem like a building that has been there for a very long time thus illustrating the art of merging in quite finely.

Alternatively, *'Kadalas – The Sea View Café* rendered in the milieu of Kozhikode beach is an example of a uniquely treated public building. The café curates an exceptional space for 'experience dining' which has started a new ripple within commercial architecture.

The studio consciously limited details and ornamentation within the structure, to accommodate the focal design plug – the beach. The colour palette, borrowed from the sea, has shades of blue and yellow along with plain cement finishes in interiors and exteriors. The corrugated sheet front façade, adds texture to the bare concrete finish with contracting glass windows. The furniture line was consciously designed humbly, to avoid feeling overwhelming. The other selected accents in the space were handpicked to resonate with the history of a bygone era, it sat on.

Kadalas was shortlisted for 'IIA National Awards for Excellence in Architecture' in 2018, under the Interior (Non-Residential) category, won a Special Commendation for 'Forbes India design Awards 2019: - Best Retail & Hospitality Interiors', 'The Merit List of 2018-19', 'IIID Design Excellence Winner for Zone 1' and Runner Up for Nationals under Leisure & Entertainment category and most recently 'IIA Kerala State Awards for Excellence in Architecture', Hospitality category, in 2021.

Some other accolades the team received are the esteemed 'Golden Leaf for IIA Royale State Award in 2013', and shortlist in 2016 at a notional level for *'A Reminiscing Walk through Valiyangadi: History that is retained and revived, Malapuram'. 'The Green Lattice – Tower of Remembrance',* also won the Best Unbuilt Design in 2014 at 'Foundation for Architectural & Environmental Awareness', Winner at 'Archi Design Awards for Excellence in Architecture 2015', Commendation at 'National IIA for Architecture Unbuilt category 2015' and shortlist for 'IIA Kerala State Awards in 2014.'

They were also listed as the Most promising top '50 Gen-Next Architects' by Architect and Interior Magazine in 2016, won the 'Best Young Architect award', by Vanitha Veedu in 2017, selected as one among the '20 under 35' in the 8th edition of Design X Design Annual Exhibition 2018, and named the promising 'Start-Up of the Year Award 2018' by Saint-Gobain & economic times.

In this fast-changing urban scenario, being ethically aware of how you contribute to the fraternity and the world of architecture is important. Zero Studio being contextually driven, respects the user, its setting, and the art they propose. For a young practice, achieving the aforementioned accolades, in a period of just ten years, is simply awe-inspiring. The decade of achievement can rightfully be labelled as the 'Zero Decade'. Their strong vision, attention to detail and preparedness to experiment in every field, will continue to model the success they have achieved till now.

**Ar. Eunice Sara Jojee** is an Urban planner and a trained residential designer of intimate spaces and layouts, with a keen interest in Architectural Journalism. Her experience in designing healthcare proposals for the government has exposed her awareness and familiarity with large-scale projects. She has been a close associate with the studio and also shares the same alma mater as the founders.
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# ARCHITECTURE FOR WELL BEING

## 9 PRECEPTS OF BIO-ENERGETIC ARCHITECTURE

Author: **Ar. Raman Vig**
Reviewed by: **Ar. Suneet Paul**

| | |
|---|---|
| Author | ▶ Ar.Raman Vig |
| Year of Publication | ▶ 2021 |
| Publisher | ▶ Adhyyan Books |
| ISBN | ▶ 978-93-91374-35-8 |
| No. of pages | ▶ 300 ( 63 coloured ) |
| Available at | ▶ www.bioenergetic-architecture.com<br>www.amazon.com |


The prism of architecture in the 21st century shows a fast-paced growth with radical transformations in the world order. Mankind today has critical challenges such as climate change, carbon footprint, waste management/pollution, clean energy crisis, emerging disorderly lifestyle patterns in urban hotspots, unplanned urbanisation and such other issues. In architecture, globalisation has shifted the focus more to the glitz and iconic imagery/chatter than to rational knowledge orientations. In such a scenario, when I got the opportunity to dwell upon the book *"Architecture for WellBeing",* it was indeed refreshing and metamorphosing to get exposed purposefully, to the precepts of bio-energetic architecture. The author architect Raman Vig has no doubt, holistically and with spiritual indulgence, addressed the art and science of developing our built environment for the present and future. The book is a reminder of the relevance of the Vedic wisdom to relate to nature to achieve the ultimate goal of architecture – to create environs for humans that are healthy, cheerful and evoke positive mental and physical reflexes.

The best part of architectures' evolution is the creative diversity in approach. The conflicts between the modern-day criteria to design and construction to those of the time-tested tenets of the bygone days have been, and will always be there. It is the context that, as we all understand, has to be understood and catered to. Author architect Raman Vig, through in-depth research and his honest beliefs, lays down a methodology for design/architecture that is conducive to a healthy and sustainable living and which mobilises the energy forces in the cosmos for human happiness and comfort. A point that struck me was the clarity and strong conviction of the author in delving into a difficult and complex theme of striving to achieve design salvation. The narrative though profound attempts to connect with the reader with the apt articulation of thought in a simple conversational style.

Having gone through this book, nobody would deny that the contents have been structured very thoughtfully and intelligently- relating to the professional, the ordinary man, a casual reader or then a researcher. The different sections as one progresses reading them, do arouse curiosity and a yearn to probe more into the subject. The reader is, step by step, exposed to the intricacies and delicacies of the subject. The textual rendering is always a discourse in the realm of the physical and meta-physical. A point to be appreciated is that the hovering focus is always on the design impact of our buildings affecting an individual's physical wellness and mental state of mind, the connection he/she has with the outer layers of the universe. The chapters deal with the tangible and intangible physical and meta-physical elements that govern human behavioural responses.

To be honest, bio-energetic architecture has been written about quite a bit globally, but I would say, its nuances and practice are pursued and understood better in the Asia-Pacific belt. I pick a quote by Robert Greenberg from the many in the book by stalwarts and scholars in the profession, "The challenge is about taking things that are infinitely complex and making them simpler and more understandable." It sums it all up how the author has very deftly and logically added a newer contemporary vocabulary to the understanding of this subject. VastuShastris normally do not elaborate extensively on the science/rational of the design dictates in Vastu Shastra which is as we all know, the ultimate knowledge essence of this ancient wisdom in architecture and based on hundreds of years of experience in the realm of architecture and design. The chapter in this book on this theme, with a modern interface, responds to many a query of the chiselled/not-so-chiselled human mind. The geomantic science so closely related to the human body, is meaningfully explained in the context of design and human well-being. The text pointedly relates to its positive relevance in the diverse functions that we all participate in everyday life.

For a better understanding and a relatedness to the text, appropriate and explanatory diagrams/illustrations make this book exemplary to bring forth to the reader, a complete holistic package that embodies and unfolds certain mystic aspects so closely enshrined in design development to make human habitat cheerful and environment friendly. Due acknowledgement surely gets warrantied for the publishers for having produced a clean, stylised and voluminous document that would be a wealthy source, nationally and internationally, in deciphering many un-talked concepts and dimensions in architecture that are responsive and conducive for an energetic and dynamic evolution of our built environment.

The book is a feather-in-the-cap for the comparatively short list of writings in architecture by Indian authors meeting global standards in thought and texture.


**Author**

**Ar. Raman Vig** specializes in designing Architecture for Well Being. Based in New Delhi, he is a certified Building Biology consultant from IBN Germany and specializes in Aayadi Vaastu – a little know arm of Sthapatya Veda which deals with the design of harmonious spaces. He is also a visiting professor at his Alma Mater - SPA, New Delhi. After more than 25 years of domain experience in designing and executing more than 20 million sq ft. of a diverse range of architectural and master-planning projects as a Design principal at Studio Lotus and Associate Director at RSP Design Consultants, he decided to deep dive into his passion of designing the architecture for holistic well being. In 2018 he founded the domain of 'Bio-energetic Architecture': a unique domain that *integrates the knowledge of 'subtle energies of space and human bio-fields' as a 'layer of architectural design' with the objective to facilitate Health, Happiness and Harmony in the lives of people through Space Design.*
ramanvig@hotmail.com
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**Reviewer**

**Architect/author Suneet Paul** is the former editor-in-chief of Architecture+Design with over forty years of experience in the field of architecture and design. He has written extensively on diverse themes in the profession. He is a recipient of two Lifetime achievement awards for architectural writing and journalism: the A3 Foundation Pinnacle Award 2022 and Smart Habitat Foundation Lifetime Achievement Award 2022
He is also the Ukiyoto Author of the Year 2022.
paulsuneet703@gmail.com

# DRAWING PARALLELS

## Unnimaya Prasad

Unnimaya Prasad made her debut film, 'Anchu Sundarikal', three years after graduating with a bachelor's degree in Architecture from the College of Engineering Trivandrum in 2010. Having been interested in product design and set design throughout college, she wanted to explore the possible verticals of those streams stemming from architecture which led her to the opportunity to work as an assistant director in the film industry. This marked the beginning of her career as an actor, assistant director, and producer. As an architect, she was drawn to the charm of the movie industry and says her biggest achievement so far has been winning the Best Character Actress award at the 52nd Kerala State Film Awards. She has been fortunate enough to be a part of various movies such as Anjaam paathira, Parava, and Maheshnte prathikaram as an actor and has worked as an assistant director in a few films, including Thondimuthalum Driksakshiyum, Mayanadhi & Kumbalangi Nights and executive producer of Joji, co-producer of upcoming movie Thankam, while also acting in it and plenty other cameos that have captured hearts. From being the empathetic teacher in 'Parava' to the opportunistic accomplice sister-in-law in 'Joji' and the headstrong police commissioner in 'Anjaam Paathira', the big screen has seen original performances of Unnimaya Prasad donning a multitude of roles seamlessly, and creating a niche for herself in the industry.

In her view, if the process of making movies can be compared to architecture, contrary to popular belief, she believes that the screenwriter, rather than the director, plays the role of an architect. However, she says her education in architecture has allowed her to approach each movie as a design problem and find creative solutions to problems, manage crises, and make confident and correct decisions. Unnimaya further goes on to explain how, just like an architect visualizes the final design and structures the workflow into stages, she sees the making of a movie as having similar layers that need to be considered. From framing views through the camera to selecting locations and people, both fields go through similar phases in their creation. The concept development ties together the scenes and the whole process of layouts and flowcharts gives direction to its course, which she finds more interesting than the end product. Through her architectural education and experience, she has learned that content creation is a vital and creative part and it is just as important to structure things. Just like in architecture, the constraints of time, budget, and context play a significant role in shaping the final product.

Unnimaya recalls her time at Sankalp Architects under Pramod Parthan, where she worked on projects of various scales and typologies. However, she now focuses on around 2-3 residential projects at a time, one of which was fellow actor Dileesh Pothans' residence. She has realized that the art in everything, and particularly the flexibility in architecture, has helped her balance both of her career industries. She advises young people to choose their path with confidence and learn from their failures, and especially own up to them.

From her experience as an Assistant Director and as part of the wider audience, she has noticed that the Malayalam movie industry has broken down stereotypes and has cast actors in roles that represent the context, rather than just based on looks; redefining actors by the previously idolized looks, and has taken huge leaps to cast them as characters who judiciously represent the context and are suited perfectly for the role that could be perceived, to be seen and felt.

A glimpse into her personal lifestyle, she says, that a systematic approach to life, which she has always followed had been a challenge, but one that has helped her succeed. She believes that the movie industry could benefit from the endless possibilities that architecture offers for creative thinking and development and that this could be further encouraged through education that helps students tap into their potential and explore the various facets that could stem from architecture.

Although she modestly says that she doesn't have specific plans for the future, she hopes to continue living happily and taking on new challenges as they come. Whilst being someone who has definitely not let go of her dreams and is always open to new opportunities, she emphasizes that hard work and dedication will always pay off and encourages others to never give up on their dreams.

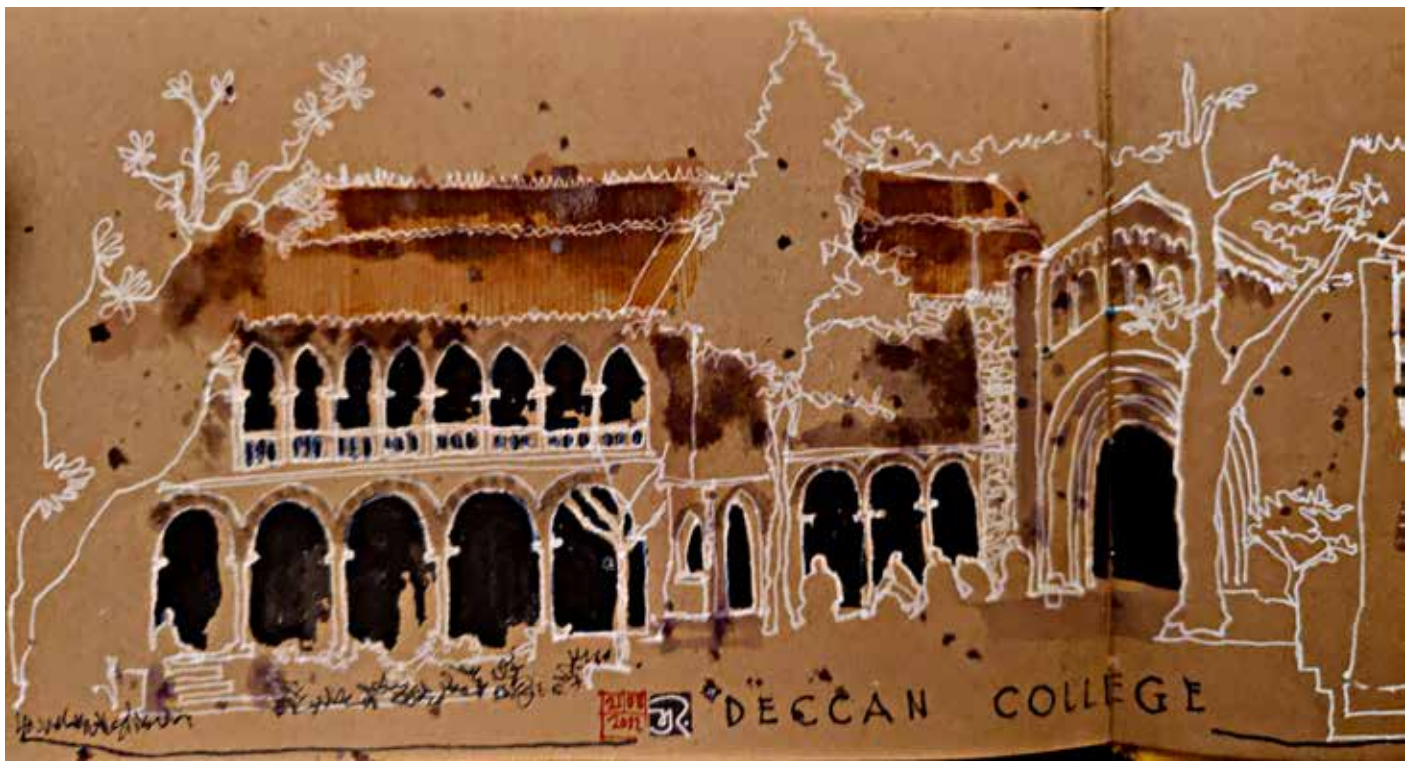
# TRANSITIONS

## Ar. Mayuresh Shirolkar

I love on-location sketching in general and more so with Urban Sketchers Pune. EVERY SUNDAY 8-10 am for the past 7½ years I'm out on location, sensing my surroundings be it smell, chatter or the elements as they come together through watercolours, bringing my paper to life. I also love traveling and rather than clicking photos I prefer sketching. So generally every Sunday morning will find me putting down impressions of life around my city - Pune (or wherever I am for that matter), showing it to the world - one sketch at a time. I strongly believe that this sketching for me ends up being totally meditative and an exploratory joy. I am a passionate theatre guy who is always in constant flux to push boundaries, be it urban or interior Architecture, confined stage or any sized paper. It is my IKIGAI.

**Usmaniya Mosque Babajan chowk:**
Historical junctions, house of prayer
Forever at peace, preserved with care
Line goes for a walk, I sit and stare


**Pune Airport waiting lounge:**
Start to finish, in a singular line
Here's a quick perspective of mine
I Sketch as I wait to pass the time

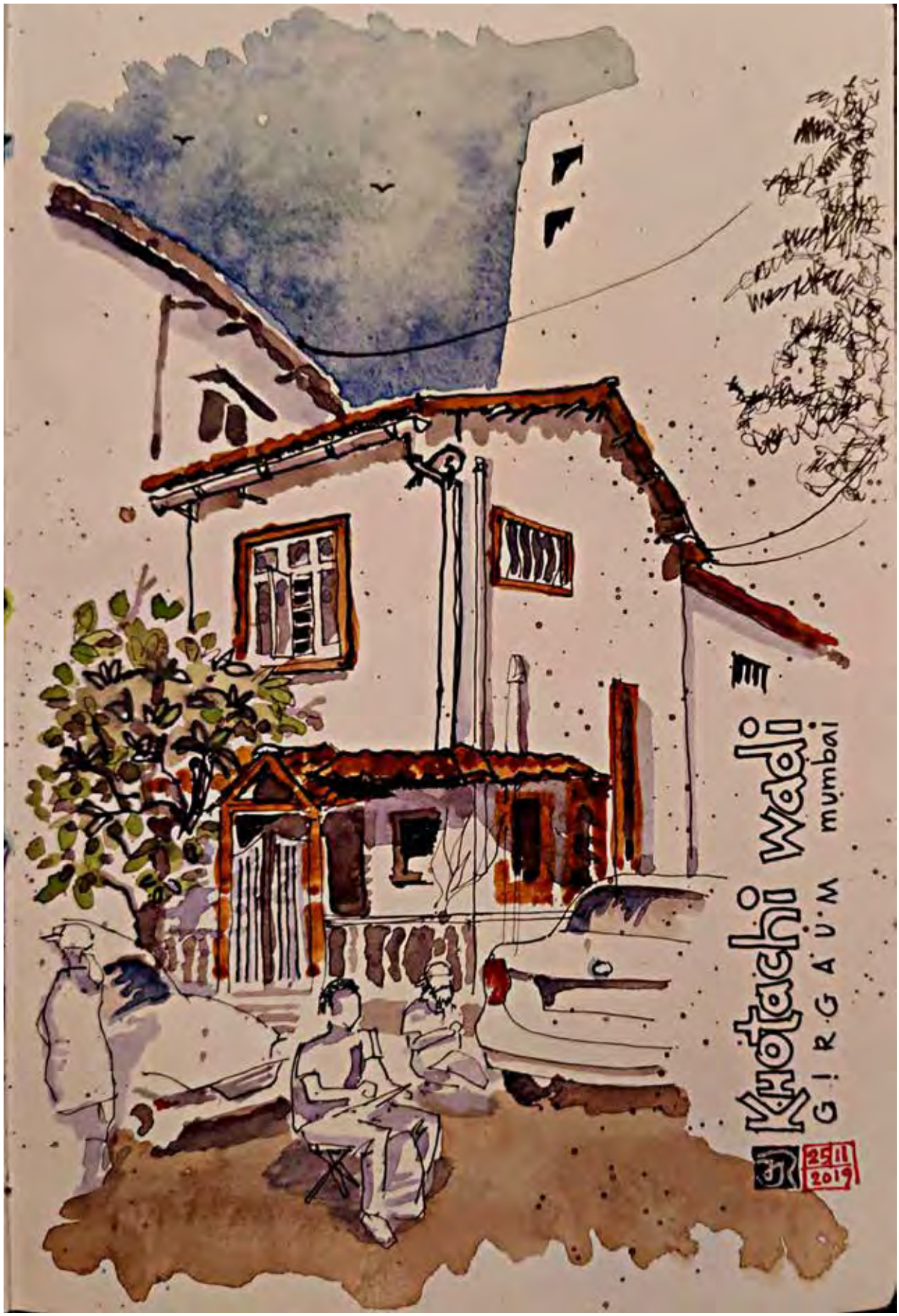



**Deccan college Pune:**
Negative spaces with a sepia background
Show some of that which is to be found
White lines shine, continuous unbound

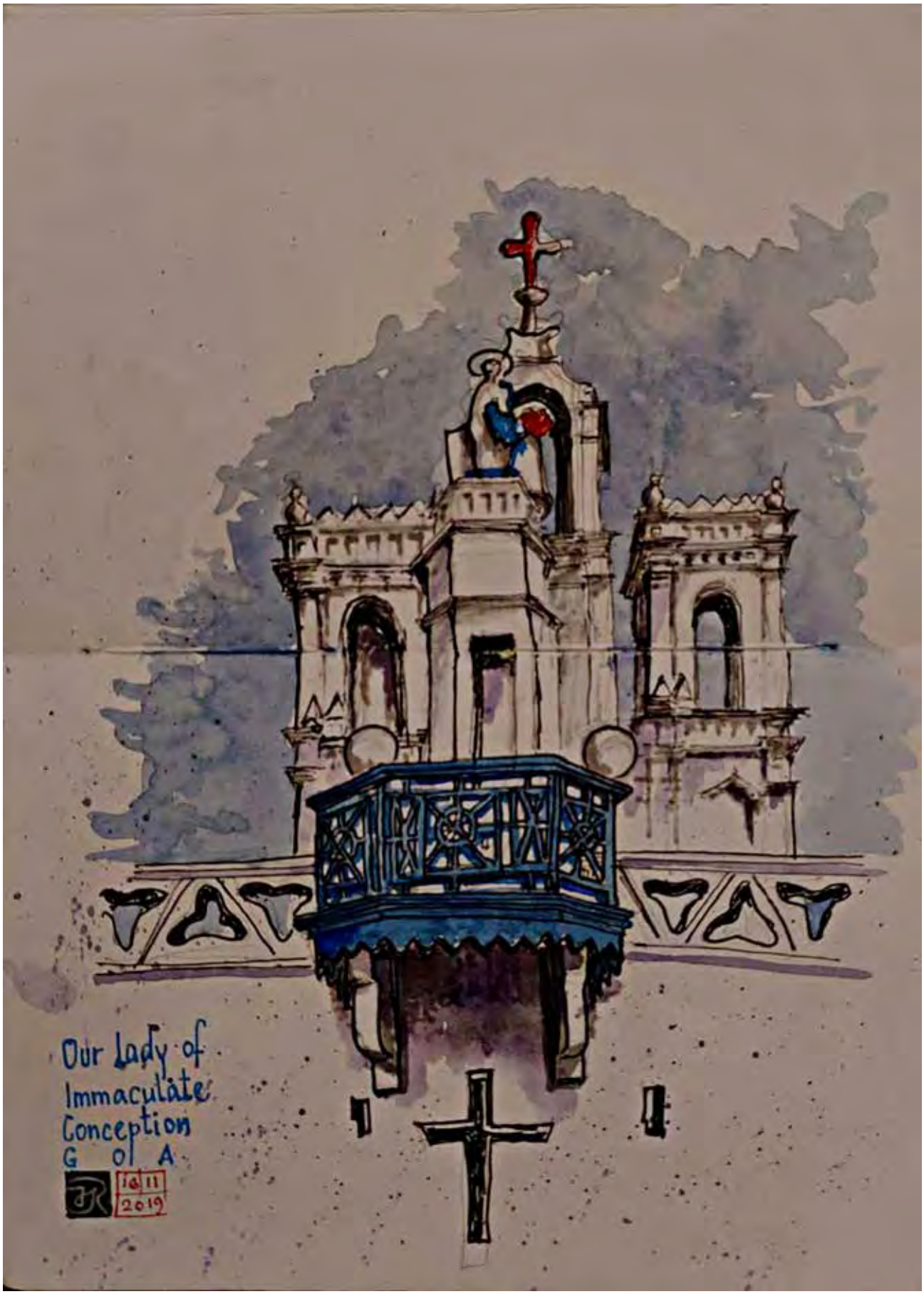

**Savitri Bhavan, Auroville:**
A snippet of the famous City of Dawn
With a blue sky and a sprawling lawn
The Mother's vision  Aurobindo's halcyon




**Kala Academy Goa:**
Burnt sienna and cobalt blue,
Correa celebrates a passion true
Completed with lines passing through




**Khotachiwadi Mumbai:**
A pocket of peace in the city of bustle
Idyllic & silent you hear a gentle rustle
Draw it, quick! We have to hustle!




**Goa Church:**
Our Lady of immaculate conception
Of etched steeples and stippled crosses
A blue pulpit of divine intervention


**Boisar ST stand:**
Interconnected paths of city folk
The jams are just a joke
In pen, in colour - intersecting stroke


**Local Train people:**
Ponderous lives in a still frame
Checking messages while playing a game
Art copies life, completely the same


**Bhuvaneshwar:**
Lilac shadows show golden light
On a temple since ages - touching sight
Stained paper reflects whites so bright

I am **Mayuresh Shirolkar,** an Architect, interior designer and educator in Pune. I head the Interior Design department at SMEF's Brick School of Architecture. I am an alumnus of BKPS College of Architecture and have also completed my Masters in Construction Management.
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# REPORT ON "KSHITIJ" THE EASTERN REGION CONFERENCE 2022 INDIAN INSTITUTE OF ARCHITECTS

**ORGANISED BY**
**THE IIA ODISHA CHAPTER**

**AT**
**MAYFAIR CONVENTION BHUBANESWAR ODISHA**


## INTRODUCTION

The Eastern Regional Conference - ERC 2022 was one of the flagship events of the Indian Institute of Architects for the Architects Fraternity of the Eastern Region comprising of the 5 States viz : Assam , Bihar, Jharkhand , West Bengal and Odisha.

The conference had been planned to advance the interests of architects , enhance their professional outlook towards the contemporary practices and to advocate the invaluable role of Architects & Architecture in the holistic development of our Nation.

The main objective of the conference was to promote sustainable and harmonious growth of the socio - economic standards while keeping intact the intangible rich cultural heritage of our glorious country.



The IIA Odisha Chapter was privileged to host the first Grand Mega Conventions of the Architects' of the Eastern Zone for the first time in the Temple City of Bhubaneswar, Odisha.

The conference aimed to have a huge congregation of Architects pan India and abroad from the profession, academia and the industry along with our industry partners for some brain storming deliberations on the future prospects of the profession and the industry. The Eastern Regional Conference (ERC 2022 ) was uniquely entitled " Kshitij " based on the Main Theme - " The Rising Architectural Horizon " which was indicative of the new paradigms in the architectural domain and the allied industrial sectors.

ERC – 2022 was successfully held from the 16th to 19th of December 2022 at one of the most première locations of the Smart City Bhubaneswar – May Fair Convention. This was a golden opportunity for the Architects from the 5 States of Assam , Bihar , Jharkhand , West Bengal and Odisha to come together and participate in huge numbers in the deliberations and explore the new emerging paradigms revolving around the concepts of innovative future technologies, resilient & sustainable architectural expressions , challenges of global climate change , rising densities , skylines and people - centric solutions evolving from the rich traditional knowledge systems imbibed in our culture from the historical times.

The Eastern Regional Conference 2022 was focused on the dynamics of our progressive profession and with a convergence of distinguished Indian & International speakers provided an opportunity to introspect the kinetics of the profession of architecture amongst the policymakers, professionals, students, allied consultants, technical partners, and all the stakeholders of the building industries. KSHITIJ facilitated excellent coordination between different Chapters of Eastern Zone for the first time and provided a distinct a platform to the Architects' of the Eastern Zone to showcase their varied talents.

The Conference structure provided an opportunity to facilitate meaningful dialogue exchanges between local, national and international architects , conference delegates technical partners and practitioners ; between students , professionals, industry and the authorities.

What actions do we need to undertake…
What ideas do we need to implement…
What will make us rise as a collective and touch the far - reaching rising horizon ?

These were some of the explorations of the deliberations which could possibly enable us to reach out towards the extended horizons.

ERC – 2022 was a golden opportunity provided by Kshitij to debate, discuss and analyze our thought processes through research paper presentations, technical sessions, panel discussions , industry - academia - professional interface . ERC 2022 provided a great learning opportunity to the young architects and students community participating in the various events specially designed for the enhancement of their creative quotient.

## THEME

The ERC 2022 was based on the Main Theme - KSHITIJ - "Rising Architectural Horizon" focused on the dynamics and the new dimensions of the ever evolving progressive profession of Architecture.

The Sub - Themes of the Conference were as follows :
**Impressions** - Based on the learnings of the past…
Fundamental Principles - Timeless Architecture - Traditional knowledge systems - People Culture Heritage – Valuable Impressions

*The timeless works of the architectural doyens who have left indelible IMPRESSIONS on us for their sensitivity and intrinsic cultural connections. ERC 2022 had the proud privilege to get enlightened from the deliberations of rich experiences of the distinguished master architects of the mid-20th century who have carved their niche in shaping not only the built landscape of young independent India but earned a reputation on foreign lands for their bold and unique architectural style.*

**Expressions** – Based on the present day concerns…
Global Climate Change - Sustainable Architecture - Disaster Resilience - Smart Cities High Densities & FAR s - Skylines & Skyscrapers - Design Challenges - Architectural Expressions

ERC 2022 had set the stage to unfold the EXPRESSIONS of the competitive works of globally renowned architects in their prime time of the 21sth century which are exemplary for being transformative , that have responded and adapted to challenging and changing times. The plenary session will be a great learning experience to reach the 'Rising Architectural Horizon'





**Innovations** – Based on the innovative ideas…
Future Technologies – New Paradigms – Alternative Technologies – AI & VR – Digitization & Robotics – Design Innovations

*ERC 2022 invited New-Gen Architects to enthral us and show new directions towards creative manifestations and technological INNOVATIONS in design and practice. The technical session with these new-age architects was indeed a renewed experience of INNOVATIVE processes adopted for designing, decision-making, and construction.*

**MASTER SPEAKERS:**
AR. RAJ REWAL:

The distinguished Doyen of Architecture from India.

AR. JOSE LUIS CORTES:

The President of Union of International Architects, Mexico.
AR. JAVIER MUÑOZ MENÉNDEZ: Merida, Yucatán, Mexico.

**KEYNOTE SPEAKERS:**
AR. ASHISH ACHARJEE : WORKS OF AR. CHARLES CORREA – Impressions

AR. ANUSHKA VAJPAYEE : WORKS OF STUDIO LOTUS – Expressions

AR. VISHU BHOOSAN :
(Associate of ZAHA HADID ARCHITECTS) : NEW DESIGN PARADIGMS & INNOVATIVE TECHNOLOGIES – Innovations






**THE PROGRAM:**
**DAY 1 :**
**16 / 12 / 2022 - Arrival of Guests | OBM | Fellowship Night**

**DAY 2 :**
**17 / 12 / 2022 – Inauguration |**
**Key Note Address |**
**Technical Session I | Competitions & Culturals |**
**Gala Dinner and DJ Nite.**

**DAY 3 :**
**18 / 12 / 2022 – Technical Sessions II & III |**
**Panel Discussion | Valedictory |**
**Gala Dinner & Entertainment.**

**DAY 4 :**
**19 / 12 / 2022 – Heritage Walk | Site Visit – Krishi Bhawan | Golden Triangle Tour | Chilika Cruise.**

## INAUGURATION

The Eastern Regional Conference – 2022 - KSHITIJ was inaugurated by the Honorable Chief Guest Shri Hemant Sharma - Principal Secretary – Industries , Chairman IPICOL & IDCO in the presence of the distinguished Guest of Honor - President UIA - Ar. Jose Luis Cortes and esteemed dignitaries President IIA – Ar. CR Raju, Vice – President IIA – Ar. Vilas Awachat, Master Speaker - Ar. Raj Rewal – Doyen of Indian Architecture and Chairperson of the IIA Odisha Chapter
Ar. Rajkunwar Nayak along with the Chairmans of the other neighboring Chapters –
Ar. Amit Ranjan, Ar. Sandeep Jha & Ar. Sunil Maniramka.


The Chairperson of the Host Chapter , Odisha , Ar. Rajkunwar Nayak paid due obeisance to the Divine Trinity and heartily welcomed the esteemed guests and the conference delegates to the Land of Lord Jagannath and the Temple City of Bhubaneswar. The Convenor of ERC 2022, Ar. Bibhuti Mohapatra elaborated on the themes and sub themes of the ERC – 2022 – KSHITIJ.

Shri Hemant Sharma , Chief Guest for the event said that the conference's theme – The Rising Architectural Horizon- would present a thorough understanding of the best practices of the past and present challenges, and innovative ideas in the field of architecture. The deep insights from the participating


eminent architects of national and international repute would be of vital importance for shaping future architectural practices and building sustainable cities.

Ar. Jose Luis Cortes, Guest of Honor for the event congratulated the IIA Odisha Chapter for organizing such an important event in the Eastern Region of the country and providing a great platform to the Architects' of the Region to have an interface with the new ideas and dimensions contemporary world. Ar. C.R.Raju – President IIA said achieving architectural greatness is more than just designing a building or place. It's about making a difference in everyday lives.

Ar. Rajkunwar Nayak – Chairperson IIA Odisha Chapter described the event and its motto. She elaborated that ERC -2022 is one of the first mega events of the Eastern Region to be hosted for the first time by the IIA Odisha Chapter which will envisage advancing the interests of members, their professional standards, and expanding & advocating the value of architects and architecture for the sustainable and harmonious growth of our country, society, economy, and culture.

The event was graced by a galaxy of eminent architects and eminent personalities all over the country. Amongst the luminaries present were Ar. Ashish Acharjee , Ar. J.P. Agarwal , Ar. Monica Khosla , Ar. Ayan Sen , Ar. Ramesh Swain ,Ar. Gokul Dash , Ar.Lalichan Zacharias Mishra , Ar.Ratnamala Mishra, Ar. Santosh Mishra , Ar. S.S. Ray , Ar.Lalichan Zacharias , Ar. Debatosh Sahu, Ar. Leena Kumar , Ar. Ashutosh Agarwal , Ar. Punit Sethi , Ar. Tushar Sogani , Ar. Vikas Dubey , Ar. Ashish Gupta , Ar. Debendra Parida, Ar. Tara Dhal, Ar. Dilip Shaw , Ar. Akshay Beuria , Ar. Ruchipurna Jena , Ar. Sagar Mohapatra and many other renowned figures in the profession and industry across India.

Ar. Swopnadutta Mohanty, Organizing Secretary of the ERC – 2022 finally delivered the vote of thanks for the inaugural session to the Chief Guest, Guest of Honor and eminent architects on the dais and the delegates from different states of India , industry partners , sponsors and all the participants for the event. She further said that more than 500 + Architects had registered for the event and the total footfall was about 700 participants. The ERC – 2022 had outlined many informal events and interesting competitions and prizes for Architects & Students Fraternity.

Celebrated Eminent Architect Raj Rewal who was the Master Speaker for the event said in his address that "The theme Kshitij -The Rising Architectural Horizons embodies the dynamic expression of our profession. He further stated, "Travel should be made a compulsory part of education to help students explore things including the architectural heritage and get inspired by them." The celebrated Indian architect said when he started his career as an architect he visited different parts and also had come to Bhubaneswar to see whatever is around here including Puri Jagannath temple and Sun temple in Konark.

"The craft used here is very much part of the Indian architecture and we should not forget it. We should learn from these crafts and involve craftsmen to take it forward". Ar.Raj Rewal known for designing the iconic buildings in modern India, further stated "However, we shouldn't copy the craft and designs rather we should get inspiration from them and find their use in a modern form." " It is extremely important to do something new," he said in his message to the young architects. He also spoke on climate resilient structures and passive designs. "The new technology that uses sun's energy to light up structure, generate power amongst the spaces should be practiced."

Engrossing Deliberations on the various Technical Sessions were given by the respective key note Speakers for the respective sub themes – Impressions, Expressions, Innovations. These were followed by the Chapter Presentations represented by the respective Architects' from the Eastern Zone Chapters. The sessions were efficiently moderated by Ar.Akshay Beuria, Ar.Santosh Mishra, Ar. Mousumi Nanda, Ar.Bharati Mohapatra and Ar. Suvaj Mohanty.

## PANEL DISCUSSION

A brainstorming panel discussion was also conducted at the ERC 2022 with the President IIA - Ar. C. R. Raju , Ar. Lalichan Zacharias and Chief Architect Odisha Ar. Sushant Patra from the Council of Architecture were among the main panelists along with Ar.Ratnamala Mishra, Ar. Dharitri Das , Ar. Lagnajit Mohapatra and Ar.Sayantan Bhattacharya as representations from the government , profession and academia. The panel discussion was moderated by Ar. Akshay Beuria National Council Member IIA.



**BOOK RELEASE**

The IIA Odisha Chapter released a souvenir entitled KSHITIJ on the momentous occasion of the Eastern Regional Conference -2022 which was a compendium of the impressions, expressions and the innovations of the rising architectural horizon. A book authored by the renowned Architect Dulal Mukherjee "Bridging the lines and roots" was also unveiled on this significant occasion of the ERC – 2022.

**VALEDICTORY**

The Valedictory Session was inaugurated by the Honorable Minister of Housing & Urban Development Usha Devi, in the presence of President IIA – Ar. CR Raju, Jt. Hon.Secretary IIA – Ar.Satish Mane, Chairperson of the IIA Odisha Chapter Ar. Rajkunwar Nayak and Chairmans / Vice Chairman from Assam, Bihar, West Bengal, Chhattisgarh and Jharkhand Chapters.Announcing the successful and purposeful conduct of the event, Smt. Usha Devi said that the conference's theme was very interesting. This conference and its eminent speakers would encourage the architects and future architects of the nation. She also congratulated the IIA Odisha Chapter for doing a wonderful job for the Architects 'Fraternity and extended her best wishes in their noble endeavors.

The Valedictory Session saw a multitude of awards and prizes given to the winners of the various competitions from the different States. Many important awards were conferred upon the prominent personalities in the field of Architecture for their valuable contribution to the profession. Eminent Architect Ramesh Swain was honored by the prestigious Otto Koenigsberger Award for Lifetime Achievement in the field of Architecture.

Senior Architect Gokul Das – Ex Chief Architect, Government of Odisha was honored by the prestigious Ar. K.B. Mohapatra Medal for his Outstanding Contribution to Architecture. Ar. Dilip Shaw was honored the prestigious Ar. Srikant Paikaray – Architect of the Year Award for their project the Kalabhoomi, Bhubaneswar.

The prestigious Ar.Saurashtra Das Award for the Best Thesis was awarded to Sk Md Sibli Akram from VSSUT , Burla. The Design Excellence Award for the ERC 2022 was awarded to Ar. Ayan Sen for his project The Bengal Rowing Club.

The IIA Odisha Chapter also designed a monumental rolling trophy for the Eastern Regional Conference which


was presented to the winners of the competitions – The IIA Jharkhand Chapter – winners of the for hosting the next ERC .

Besides this all the Convenors , Co Convenors , student volunteers and supporting architects were felicitated by the IIA Odisha Chapter for making the Eastern Regional Conference – 2022 a great success.

## ENTERTAINMENT

The ERC – 2022 was also dotted by some mesmerizing performances of Odissi dance and Paika Nrutya by the famous dance groups from State of Odisha.

The DJ band made everyone rock the first night whereas the Russian dance troupe alongside the Sufi band of Anurag and Shashank Sekhar left the Architects spellbound and one and all dancing to the Bollywood numbers.

## CONCLUSION

The 4 day enriching conference with interesting theme, sub-themes, enthralling presentations, varied informal events and competitions, heritage walks, site visits (Krishi Bhavan), Golden Triangle tours, Chilika Cruise complemented with Gala Dinners, DJ nite, mesmerizing culturals and entertainment made this a remarkable and memorable event etched on the minds and hearts of the participants to be cherished forever.

# NEWSLETTERDECEMBER

## OBITUARY

**Ar. B.S. Verma**
10.12.2022

The Rajasthan Chapter has sad news to share…
With profound grief, we inform you of the sad demise of Ar. B.S. Verma. He contributed substantially to the chapter's expansion as IIA Rajasthan's first Secretary. He will be remembered as a wonderful and cheerful soul. We pray for the departed soul and extend our deepest sympathies to the bereaved family.

We bid him farewell as he makes his way into eternity.

## OBITUARY

**Ar. Hamid MM**
03.07.1990 - 08.12.2022

Hamid MM, Principal Architect and partner at Zero Studio passed away on the 8th of December,2022.

Studied at TKM College of Engineering, Hamid was an exceptional student. His contributions to Zero studio, have won many accolades at both State and National levels. Talented and a humble human being, he was known for his sense of perfection and attention to detail in all that he touched.



## IIA-HP Chapter

**1. School of Architecture Festival (ZATRA-2022) Celebrated on 10.12.2022 at School of Architecture, RGGEC Kangra Himachal Pradesh**

On the occasion of the successful completion of 5 years of togetherness, harmony, passion and culture at the School of Architecture, the festival called ZATRA 2022 was organised on 10th December, 2022 at SoA RGGEC Kangra at Nagrota Bagwan, Himachal Pradesh.

The event was coordinated by Ms. Samragi Sharma and Mr Hemant Prashar both students of 5th year B.Arch. on the very outset of the festival, a heartily welcome was extended to the dignitaries, especially to Ar. Nand Lal Chandel, Architect in Chief, Govt of Himachal Pradesh, and present Chairman, IIA, HP Chapter and all the members of IIA HP Chapter for sparing their valuable time for the event.

To make the festival, a blessed one and for seeking the choicest blessings of Goddess Sarasvati, the festival was started with the lamp lighting ceremony with honourable Chief Guest, the Chairman of IIA, Ar. Nand Lal Chandel, Vice Chairman of IIA, Ar.Manuj Shardia and Head School of Architecture, Dr Satish Kumar Katwal, Ar. L.M Mastana Sr Architect HPPWD Dharamshala and Ar Sarojani Sharma Executive Member IIA HP Chapter.

Later on, Dr Satish Kumar Katwal, Head School of Architecture extended a warm welcome to Ar. Nand Lal Chandel, Chairman IIA and Architect in Chief Govt of Himachal Pradesh and also Member COA who graced the occasion as Chief Guest. Also, a hearty welcome was given to Distinguished Guests, the Legendary Architects for their Life Time Contributions to the field of Architecture. Besides this Ar Manuj Shardiya, Vice Chairman IIA, Ar Neeraj Raghuvanshi Hon'ble Treasurer IIA, Ar Sushil Sharma and Ar Sarojani Sharma Jt Hon'ble Secretaries IIA, Ar L M Mastana and Ar Salochna Dhiman, Ar Vijay Thakur and Ar Abhinav Kopundal. A special Welcome was extended to the First Alumni Batch of the School of Architecture and to all Sponsorer for their contribution to make this event happen.

Ar Punit Sethi, Chairman IIA Haryana Chapter was Keynote Speaker on the Occasion. Ar Sethi delivered a Virtual Talk on Professional Practice. He also congratulated Ar. Nand Lal Chandel and Dr Satish Kumar Katwal for organising ZATRA-2022 jointly.

The opening ceremony was concluded with a pledge that everyone present will join hand in hand to make Architecture a promising profession in Himachal Pradesh and facilitate the School of Architecture, RGGEC Kangra at

Ar Punit Sethi, Chairman IIA Haryana Chapter as Key Note Speaker

Participants attending the Inaugural Session and Virtual Lecture by Ar Punit Sethi, Chairman of IIA Haryana Chapter

Mr Anshu Bathla Head of Designing and Strategy at Fab Frame, Partner at Atul Glass explains to the participants

Nagrota Bagwan to achieve more and more Mile Stones in the coming years.

Ar Nand Lal Chandel also addressed the gathering and appreciated the work done by students and the Faculty of SOA.

**2. The Material Exhibition was organised on 10th December, 2022 at the School of Architecture Kangra**

Ar. Nand Lal Chandel Architect-in-Chief Govt. of Himachal Pradesh & Chairman IIA, HP Chapter along with Vice Chairman, Ar Manuj Shardia and IIA Executive members inaugurated the material exhibition organised on 10th December, 2022 at the School of Architecture at Rajiv Gandhi Govt. Engineering College Kangra at Nagrota Bagwan, Himachal Pradesh. Ar Nand Lal Chandel, Chairman of IIA HP Chapter was greeted by Dr Satish Kumar Katwal, Head School of Architecture, Ar Manuj Shardiya Vice Chairman IIA HP Chapter, Ar Neeraj Raghuvanshi Hon'ble Treasurer of HP Chapter, Ar L. M Mastana, Ar Shalochna Dhiman and Ar Sarojani Sharma, Ar Vijay Thakur and Ar Abhinav Koundal, all Executive Members were also greeted on their arrival in the campus.

The exhibition was opened to students' architects and practising architects of the state. More than 200 architects including students architects from the School of Architecture witnessed the Highlights. Among Exhibitors mainly; Fab Frame, Merino and Kerovit by Kajaria, Unipro, JKG Contractors, M/s Vijay Kapoor construction, Mandi.

Dr Satish K Katwal greeting Ar Nand Lal Chandel and EC Members

**3. IIA HP Chapter Dialogue Session held on 10th October 2022**

The IIA Dialogue session was divided into three parts: Introduction of IIA, Panel Discussion and Felicitation of Senior Architects of Himachal Pradesh

The first part was started Ar. Salochna Dhiman by highlighting the Indian Institute of Architects (IIA), the National body of Architects in the country, established in 1917 having than 25,000 members. It was emphasized that IIA plays a major role in promoting the profession of architecture by organising and uniting the Architects of India to promote aesthetic, scientific and practical efficiency of the profession both in Practice and in Education. It was also mentioned that with the kind support of IIA HP Chapter, Indian Green Building Council (IGBC) Student chapter was launched at the School of Architecture at Rajiv Gandhi Govt. Engg. College, Nagrota Bagwan on 17th July, 2021.

Ar. Vidisha Barwal, Assistant Professor of Architecture, started the second part i.e the panel discussion by introducing the panelist: Ar L. M Mastana, Ar Ajay Sharma, Ar. Manuj Shardia, Ar. Salochna Dhiman, to the audience. Afterwards, the topic of the discussion "SEEKING ARCHITECTURAL IDENTITIES IN THE HIMALAYAS" was coined for the panelist. Ar. Vidisha Barwal moderated the discussion by highlighting the keywords: Lack of Specificity / Geo-Political Interferences/ Desire to Create/Practicalities of Responsible Design for discussion and requested them to confine their discussion within these words so as to draw a specific and purposeful conclusion.

It is also explained to the panelists that the state of Himachal Pradesh, predominantly rural and forested, has transitioned into peri-urbanization. The resultants are adopted material-palettes, erosion of specificity, lack of sensitivity towards surroundings, sprawl and haphazard constructions that seems to have little or no inclination towards responsible architecture. The discussion was opened by posing two questions to the Panellists: In this anthropocentric scenario, how can the architects ameliorate the impact of this "leniency to create"? and how can architectural design in the state retain the identities of regions as well as concomitant resources?

The discussion concludes that we as architects may not be able to design enough with our vernacular resources since they are diminishing in nature with exploding levels of the population to be catered to. But, the climate is our fundamental noun. Despite the change in spatial

requirements of people, it would be imperative for us to thoroughly understand what belonged to our past. It would, in turn, enable us to judiciously translate concurrent advancements onto our designs. The identity of architectural settings in the Himalayas shall evolve with a conscious consideration toward the potential hybridization of design processes from the past and the present.

During the last part of the Dialogue session, senior architects of Himachal Pradesh who after serving the state have now retired & aged above 60 were felicitated for their lifetime Contributions in the field of Architecture by Chairman, IIA HP Chapter Ar. Nand Lal Chandel. Among the legendary/celebrated Architects were: Ar. Ranjana Gupta, Ar Sarojani Sharma, Ar. Shashi Sharma, Ar. Sudesh Acharya, Ar Sushma Gupta and Ar. Udai S Bhardwaj honoured on the occasion.

Ar. Shalochna Dhiman, Ar. Manuj Shardiya, Ar. Ajay Sharma & Ar. LM Mastana all EC Members of IIA HP Chapter during the panel discussion

Ar Vidisha Barwal, AP Architecture, SoA briefing the Key words of panel Discussion

**4. First Alumni Batch was felicitated and meritorious students were honoured with Academic Excellence Awards During ZATRA-2022 at the School of Architecture, Kangra**

The first alumni batch of SOA who passed out in the month of August 2022 was invited on the occasion of ZATRA-2022 and was felicitated with the hope that zatra shall lift up their spirits and brings back the happy memories of college life. Ar. Nand Lal Chandel, Chairman of IIA, HP Chapter and Dr Satish Kumar Katwal, Head, School of Architecture felicitated the alumni batch.

Also, Ar. Priyanka Thakur and Ar. Kanika Mehra were elected as President and General Secretary of the School of Architecture Alumni Association (SOAAA) and were honoured with mementos on this occasion. All other alumni members were given an Alumni badge and a kit as a token of honour.

Also, meritorious students of all batches of B. Architecture were honoured for their Academic Excellence. Among these students were: Ar .Shagun for Best Thesis, Ar Harshita Negi, Best Out Going Student, Ms Himanshu Chauhan Academic Excellence 4th Year, Ms Urvashi Thakur Academic Excellence 3rd Year, Ms Daxita Verma Academic Excellence 2nd Year, Ms Himanshu Chauhan Academic Excellence 4th Year, Ms Urvashi Thakur Academic Excellence 3rd Year, Ms Daxita Verma Academic Excellence 2nd Year and Ms. Rachna academic excellence Award 1st Year. All were honoured by giving Mementos.

Dr Satish Katwal, Head, SoA honouring Ar Priyanka Thakur, President, SoA

Ar Nand Lal Chandel honouring Ar Kanika Mehra General Secretary SOAAA in presence of Dr Satish Katwal Head SoA

**5. The Magazine titled as "Dialect-2022" was launched during Zatra-2022**

In Pahari, Zatra literally translates to community gathering and voyage, which are frequently undertaken to obtain the Devta's blessings. In the same fashion 10th December, 2022 was chosen to be celebrated as a day for the gathering of all architectural fraternity, celebrating our culture, practices, students and educators.

To celebrate the architectural Journey of the School of Architecture which came into being in the year 2017 and has just completed 5 years. Various happening were recalled and recorded to cherish this journey. So far the journey has been beautiful. In the Himachali "Dialect", "Zatra" literally translates to "gathering and voyage," which is frequently undertaken to obtain the Devta's (God's) blessings. We are convening all students, alumni, and professors to commemorate the School of Architecture's 5th Anniversary. Thus, the festivity is titled "ZATRA." In its literal definition, the word "dialect" refers to "a particular form of a language." Similarly, at the School of Architecture, students from all around Himachal Pradesh as well as from other states, bring with them not only the dialect they speak but also the way they express their architecture in their own linguistic styles.

To honour the variety of architectural dialects spoken by the students and faculty of various backgrounds during

the last five years, the magazine is named 'Dialect-2022'. Ar Nand Lal Chandel, Chairman, IIA HP Chapter, Dr Satish Kumar Katwal, Head, School of Architecture, Ar. Geetika Koundal, Faculty Magazine Coordinator along with student editors, Mr.Shivam Thakur, Ms Anmol Hazri, Ms Himanshu Chauhan, Ms. Rivani Dogra and Ms. Anshu Rangra formally revealed the magazine named Dialect-2022 to students, and other dignitaries present on the occasion.

"DIALECT' – 2022 shall motivate the students and faculty to think, write and record various challenges since the inception of this magazine. This is the reflection of various achievements and activities of SOA from 2017 to till date. It is believed that this publication would be a referral compilation to revisit the milestones achieved during the establishment of the School of Architecture.

Ar Manuj Shardia, Dr Satish K Katwal, Ar Nand Lal Chandel, Ar Geetika Koundal and students during the Magazine launch

### 6. Cultural events and a Live Concert were organised on the occasion of ZATRA-2022

As you know any event without a cultural twist is incomplete. In order to make the festival more exciting and lively for students and other dignitaries present, there were many cultural performances by students. Also, there was a live concert arranged on this auspicious occasion. The whole Cultural event was made Facebook live for all parents, friends and all those who could not attend and witness the festival for any reason.


Students' Cultural Performances during ZATRA-2022

### 7. 6th Batch of B. Arch students added as Freshers to the School of Architecture Family

In order to make the festival, an inclusive approach was adopted. 6th batch of B. Arch students is added to the School of Architecture, RGGEC Kangra at Nagrota Bagwan whereas the First batch who passed out in August, 2022 was made as alumni of the School of Architecture. Certain themes combining retro, Bollywood, cartoons, and Hamachi folk attire were selected for introducing the Freshers. The newly admitted students were introduced to the rest of the family as film stars. They made a few cultural performances as well to impress the viewers.

6th Batch of B. Arch Students as Freshers in 2022

## IIA-J&K Chapter

We have hosted first of its kind four- day long Building Material Expo from 25 Nov-28 November, 2022. This Expo is one of the highest-rated one-stop events in Jammu. Prominent leading manufacturers across the country, and concerned professionals including Architects, Engineers, Builders, Dealers & Distributors participated in it. Almost 120 big brands from PAN India have showcased the latest and trendy products for the construction of buildings. Mayor, JMC Sh. Rajinder Sharma inaugurated ARCHEX-2022. About 22000 people visited the event as an opportunity to have direct interaction with the dealers, manufacturers and experts. This event came out to be one of the greatest events of the architectural community in Jammu.

Also, we have organized a seminar on Energy Conservation and Green Buildings on the 27th of November, 2022. The main purpose of this seminar was to aware professionals of the importance of sustainable building materials and their effects on construction and also to make the building clean and green which ultimately leads to an eco-friendly

Felicitating eminent speaker of the event, Ar. Jit Kumar Gupta


Launching of the book 'Making Cities Great Place to Live.' Published by JK Cement and written by Prof. Jit Kumar Gupta

environment. During this programme, eminent speakers Ar. Jit Kumar Gupta, Architect & Urban Planner, Chandigarh and Mrs. Meenal Anand, ECBC Govt. of India shared their views and also updated professionals about the importance of energy conservation in buildings.

Ar. Vikas Dubey
Chairman,
The Indian Institute of Architects
J&K Chapter.

## IIA-Maharashtra Chapter

### Activity Report of the IIA Kalyan Dombivli Centre (Maharashtra Chapter) for the year 2021-22

IIA Kalyan Dombivli Centre has always organised programs, events, activities for the betterment of the profession of Architecture, students of Architecture & public at large. IIA Kalyan Dombivli Centre organised many social activities which centers regular activities last year. Some of the major social activities conducted by IIA Kalyan Dombivli Centre include

**1. Lake rejuvenation project** – There is an existing lake in Group Grampanchayat Bandhivali – Ghagurli, Taluka – Murbad, District – Thane, Maharashtra. In summer, there is an acute shortage of water in this village & surrounding area. There is an existing well in one of the corners of the semi–dry lake. The villagers pump out water from this well to nearby villages. The water storage capacity does not cater to the increasing demand for agricultural & domestic use especially in the month of April & May i.e. before monsoon, the villagers of the nearby area. The Indian Institute of Architects, Kalyan Dombivli Center has taken an initiative to rejuvenate the village lake by removing the sludge and clearing the natural springs for increasing water storage capacity & beautification of the surrounding area. This helped in reviving the lake, ecologies dependent on them, attract flora, fauna & migratory birds. The members of IIA, KD Center generously contributed to this noble cause. This project had been executed jointly with Builder/developer Mr. Vinayak Patil & Mr. Bhimsheth Patil of Dombivli.

Lake rejuvenation

**2. Landscape Design competition** – IIA KD Centre celebrated its 31st foundation day on 13/11/2021. On this occasion, the centre organized a Landscape Design competition for 4th and 5th-year students of Architecture. The site was selected along the Road between Dombivli & Kalyan stations which was surrendered by a local builder/ developer under the Accommodation Reservation policy. Jury for this competition included eminent landscape Architect, Ar. Rajoo Pradhan, Ar. Suvarna Sathe & Ar. Swati Dike. The competition received a good response from students of Architecture. Ten entries were shortlisted and the first prize was awarded to Miss. Mrunamayi Bante and Second prize awarded to Master. Tejas Shirode.

Images from Landscape Design Competition

**3. 27 Villages in KDMC** – In 2001, the Maharashtra Government decided to exclude 27 villages from the Kalyan Dombivli Municipal Corporation due to opposition from local villagers. The villagers alleged that the municipal corporation does not provide any facilities, but collects huge taxes from the poor villagers. Bowing to the agitations by the villagers, the government decided to exclude these 27 villages from the Kalyan Dombivli Municipal Corporation by an order Dated – 12/07/2002.

In the year 2015, the Maharashtra government again decided to include 27 villages in the Kalyan – Dombivli Corporation area through an order

Dated – 01/06/2015. During 2001-2015, no one had any control over these villages. So, a large number of buildings and encroachments came up in this area.

After the inclusion of 27 villages in the Kalyan Dombivli area, the new Development Plan & Development Control Regulations were formulated for this area & KDMC started giving approvals from 2016-17.

Again Government unexpectedly excluded 18 villages from Kalyan Dombivli Corporation through an order Dated – 24/06/2020 to form a separate municipal council. Our EC member, Ar. Sandeep Patil filed a case against this scenario and controlled the unstable and unexpected decisions from the Maharashtra Government. However, the Hon. Mumbai High Court on Dated – 16/12/2020 canceled the notification Dated – 24 June 2020, issued under Section 3(3) of the Maharashtra Municipal Corporation Act, 1949, and the consequent notification issued under Section 3(3) of the Maharashtra Municipal Council, Nagar Panchayat and Industrial Townships Act, 1965. At present, we are fighting at the Hon. Supreme Court against the Government to streamline the Urbanization of that area.


Ar. Sandeep Patil

**4. RERA Scam** – To stop the registration of flats & shops in illegal buildings, the Government made it mandatory to submit RERA Registration certificates at the time of registration. So, builders & developers involved in illegal construction started submitting fake / forged documents (Fake plans sanctioned by the Authority) to RERA for acquiring RERA registration certificates.

Our EC member Ar. Sandeep Patil exposed 65 developers in Kalyan –Dombivli who did not take any permission from the town planning department of KDMC and prepared forged permission documents and used them to get RERA certificates.

Considering the potential threat to the life of Ar. Sandeep Patil, our IIA KD Centre had submitted a letter to Police Department requesting police protection. On appeal from our Centre, other Centers under Maharashtra Chapter also submitted similar letters to the police department requesting police protection for Ar. Sandeep Patil. Also, a press conference was organized by IIA KD Centre on Dated – 30/11/2022 demanding police protection for Ar. Sandeep Patil.

Due to this initiative, the RERA scam came to light & further cheating of the public at large has been stopped.


पालिका, पोलिसांची ५० हून अधिक नावे 'ईडी'कडे दाखल?

KDMC begins demolition of illegal structures in Kalyan

Newspaper cuttings regarding RERA Scam

**5. Redevelopment Seminar** – IIA KD Centre conducted a seminar on the Redevelopment of old housing societies in the Kalyan Dombivli area


सहकारी संस्थांच्या पुनर्विकासला येणार बळकटी

Newspaper cuttings regarding the redevelopment seminar conducted by IIA KD Centre

Dated – 15/10/2022. The general public was given valuable information about the Redevelopment process, FSI, incentive FSI, etc. Eminent speakers Advocate Pravin Sawant & CA Rajendra Chaplot were invited to enlighten housing societies about legal & accountancy and Financial related issues to be considered during redevelopment. This seminar created a lot of awareness among the general public about the proper redevelopment procedure to be followed.

## IIA-Tamil Nadu Chapter

### 25 Years of IIA Trichy

IIA Trichy and Archtrust Trichy organized the Archfest 2022, a one-day conference, celebrating 25 years since the IIA Trichy Centre was formed. The Keynote speakers at the conference were, Ernesto Bedmar, Ernesto Bedmar Architects – Singapore, Abin Chaudhuri, Abin Design Studio – Kolkata, Melissa Smith & Sachin Bandukwala, Banduksmith Studio – Ahmedabad, Aditi Pai, The Purple Ink Studio - Bangalore. Around 300 Architects and Students of Architecture participated in this conference that was held on 15th October 2022 at Courtyard by Marriott Trichy. All the past Chairpersons of IIA Trichy Centre were felicitated at the event by Ar.C.R.Raju, President – IIA in the presence of Ar.Loganathan T., Chairman-IIA Tamilnadu Chapter and Ar.Siddique, Chairman – IIA Trichy Centre.

### ARCHMAT 2022

The IIA Trichy Centre along with Archtrust Trichy organized the Archmat 2022, an exhibition on Art and Architectural products at the Kalaignar Arivalayam, Trichy. Entry was free for the public and there were about 80 stalls on display as part of the exhibition. The event was held on September 30th, October 1st & 2nd of this year, which turned out to be a grand success with people across all walks of life visiting the exhibition.


Ar.C.R.Raju - President IIA, addressing the gathering


Ar.Loganathan - Chairman, IIA Tamilnadu Chapter addressing the gathering


Felicitation of Past Chairpersons

IIA Trichy Team with Speakers and Chief Guest

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Architect of the Year Awards

JK AYA

# AWARD CATEGORIES

## Great Master's/Chairman's Award

Once in 3 years (Next due in 33rd JK AYA)

## Green Architecture Award (Environment Conscious Design)

Eligible Countries: India, Bangladesh, Bhutan, Kenya, Maldives, Mauritius, Nepal, Seychelles, Sri Lanka, Tanzania & Uganda

## Indian Architecture Awards (IAA)

Eligibility: Any Indian Architect

## Indian State Architcture Awards (ISAA)

Eligible Status/UT: State by Rotation

## Foreign Countries' Architecture Awards (FCAA)

Eligible Countries : Bangladesh, Bhutan, Kenya, Maldives, Mauritius, Nepal, Seychelles, Sri Lanka, Tanzania & Uganda

## Architecture Student of The Year Award

Eligibility: Final Year Undergraduate students of Indian Colleges


RPS-06/2022

**33rd JK AYA shall open for participation for sending entries From 1st January, 2023.**

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## For Award Information :-

Please Contact Award Secretariat :

**RANA PRATAP SINGH**
**(Administrator JK AYA)**

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