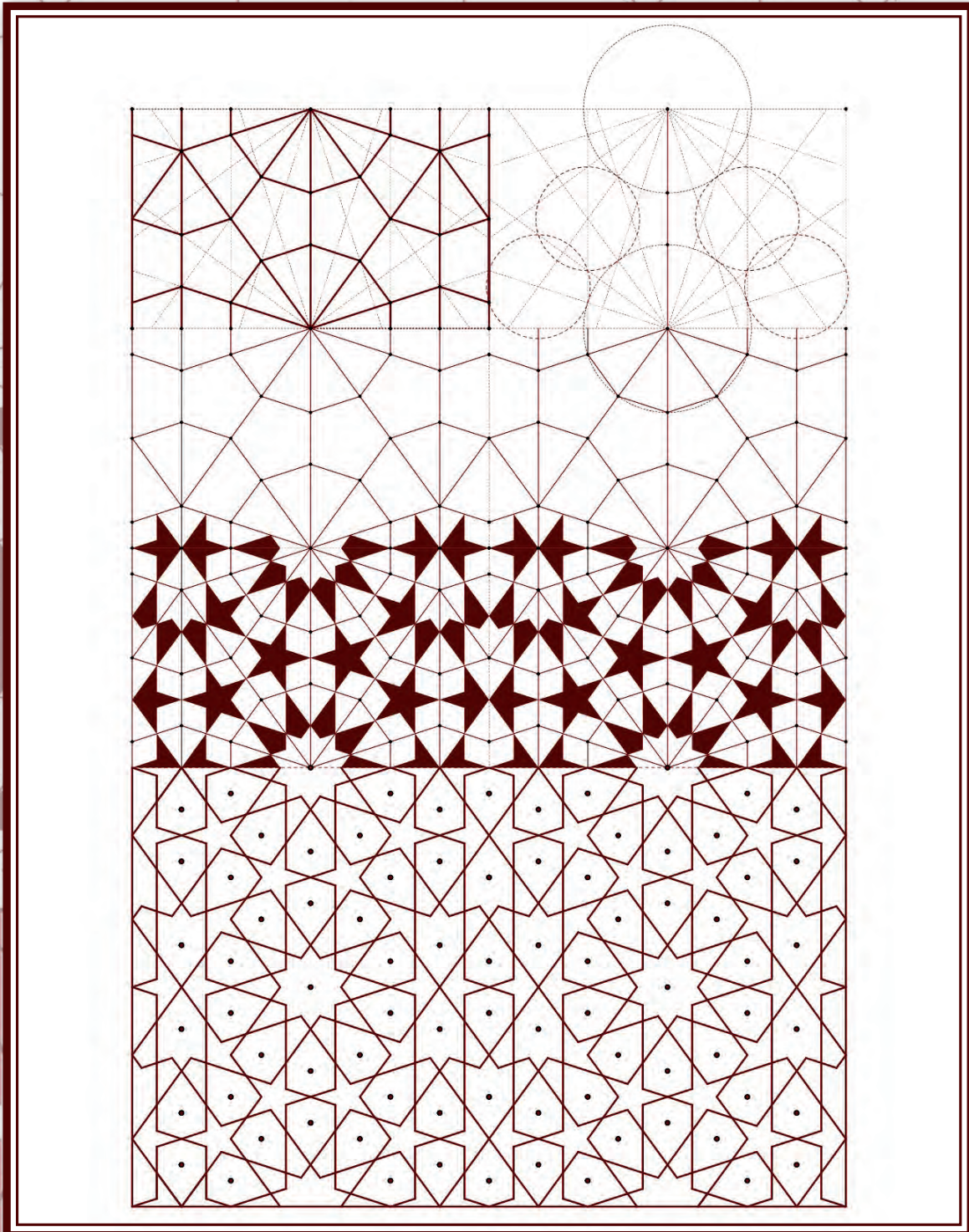
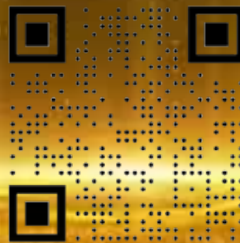




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EDITOR'S NOTE

Happy Deepavali to all my dear Fellow Members of the Indian Institute of Architects.

This month comes with festivities and contributions to Bharat and the world. We began this festival by celebrating *Sharad Navratri* on 3 October and Dussehra on 12 October. This day marks the victory of Lord Raam over the demon king Raavan, symbolizing the triumph of good over evil. As this year's Deepavali starts on 31 October, we wish the *diyas* glow bright and may your lives and those of your loved ones be filled with happiness, love and success.

We also celebrate the birth anniversaries of Mahatma Gandhi, the Father of the Nation, and of Lal Bahadur Shastri, who served as the second Prime Minister of India from 1964 to 1966 on 2 October. To commemorate the anniversary of the adoption of the ILO / UNESCO recommendation concerning the Status of Teachers in 1966, World Teachers' Day is observed on 5 October. 7 October (the first Monday of October 2024) is observed as World Habitat Day across the globe. To recognize the role played by the Indian Postal Department for more than 150 years, every year, October 10 is observed as National Post Day in India. In the growing technological advancement World Standards Day is observed on 14 October every year to raise awareness among regulators, industry and consumers to show the importance of standardization to the global economy and to promote the development which will abide these standards to streamline the development. World Development Information Day is celebrated on 24 October every year to draw the attention of the world to development problems and the need to strengthen international cooperation to solve them.

The October issue of JIIA has a unique cover page which illustrates the geometric pattern used for the cover design is inspired from the embellishments of Birbal's house, Fatehpur Sikri, Agra. This issue has an interesting research paper on architects' perception on innovative incorporation of upcycling in architecture along with an article on

relationship between art and architecture and on detailing in architecture as well. You can enjoy the portrait sketches of our visionary architects and you can dwell upon the design project of 'Tribhuvan' along with a travelogue on Garli, Himachal Pradesh.

We will urge all the following Architects to participate in the IIA Awards 2023 in large numbers to showcase your talent in various categories. This event will be hosted by IIA Gujarat Chapter in Rajkot. We also urge you all to attend the IIA Southern Regional Conference (IIA SRC) scheduled on 29 and 30 November for listening to the great line-up of national and international speakers in the city of Wayanad, Kerala.

An appeal to all IIA members to contribute to JIIA with articles, projects, research papers and most importantly, in terms of sponsorship and funding. Thank you for your continued support and readership.

Prof. Vinit Mirkar
Editor, JIIA



Ar. Vinit Mirkar

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Rajendra Raju**
Imm. Past President, IIA

Dear Fellow Members,

Greetings to all for Diwali, the festival of lamps, and of happiness and to be grateful to God.

In October, as always, it will be a pleasure to see all young architects, along with seniors participating whole-heartedly in more and more IIA events that are lined up.

In November, we have the flagship event of *Pinkprint*, the IIA International Women Architects Conference at Bhubaneswar. I do know for a fact that for the last three months, or more, the IIA Odisha Chapter Chairperson and her team have been working very hard for this event. There is a stellar array of women architects who will be presenting their thoughts, including Ar. Alice Leong Pek Lian, Ar. Shamini Shankar, Ar. Parul Zaveri, Ar. Rebecca Vanessa Rellosa, Ar. Poonam Verma Mascarenhas, Ar. Tarini Mukherji, Ar. Aishwarya Tipnis, and many more.

During this event we will also hold a meeting of the ARCASIA President, VP Zone and all Presidents of Zone A, all of whom will be attending *Pinkprint*.

On 29-30 November, *Bridging Binaries*, the IIA Southern Regional Conference (SRC) 2024 will be held at Wayanad, Kerala. Apart from the Keynote Speaker, Ar. Alejandro Aravena, Pritzker Prize Winner, 2016, there will be other impressive speakers such as Ar. Anupama Kundoo, Ar. Vinu Daniel, Ar. Zameer Basrai, Ar. Thisara Thanapathy, Ar. Harsh Vardhan, Ar. Pratik Dhanmer, Ar. Deepak Gugarii, Ar. Damir Ussenov, Ar. Shajay Bhooshan and Ar. Kalpana Ramesh. We look forward to all members attending in large numbers.

From 14 to 21 November, there will be a UIA Form at Kuala Lumpur, Malaysia. Here, IIA is going to present their bid for hosting the UIA Forum 2027 at Mumbai. Here's hoping that our bid will be successful !!!

Ar. Vilas Vasant Avachat
President, IIA

COVER THEME

Unveiling the Decagonal Pattern

A Geometric Genesis



Geometry enlightens the intellect and sets one's mind right.

Ibn Khaldun

14th Century Arab sociologist, philosopher and historian

Geometry plays a profound role in Islamic art and architecture along with its inseparable elements: calligraphy and arabesque or *islimi*. These sophisticated expressions are used to create intricate and highly symbolic adornments which envelope the structures. Geometrical applications being delicate and highly complex have been explored in different patterns, scales and proportions. It is seen not only in the plan and volumetric design of the monuments but also in many elements like facades, doors, windows, *qibla* wall, *mihrab*, *minbar*, flooring, railing and *jali* screens which display excellent craftsmanship, material enhancement and mathematical calibre.

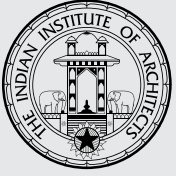
Geometric patterns are often characterized by shapes, symmetry, repetition and tessellations. The foundation of the patterns lies in an invisible geometric grid or framework, which then dictates the pattern to manifest into visually stunning expressions of spiritual and mathematical order. Geometric patterns when observed can generally be categorized into three primary categories of : square-octagon, pentagon-decagon and hexagon-dodecagon. Identifying the dominant shapes provides valuable insights into the structural framework and methods for creation of the patterns. By analyzing the shapes and their basic units and their applications in generating the patterns further uncovers the symmetrical axes that govern these designs. These invisible axes again serve as guidelines along which the patterns are reflected across the central line, rotated around a fixed point or translated along a plane, showcasing the sophisticated use of symmetry in geometric art. Understanding the process reveals how the craftsman utilizes mathematical concepts to achieve balance and harmony.

The geometric pattern used for the cover design is inspired from the embellishments of Birbal's House, Fatephur Sikri, Agra. The monument was built during Akbar's reign, displaying his grandeur and power. The creation of the decagonal pattern demonstrates the metamorphosis of geometry, from the invisible framework, symmetrical axis and tessellations resulting into a beautiful symphony of decagonal rosettes and five pointed stars. The rosettes are further punctuated by arrow and kite shaped units which seamlessly binds the whole pattern together. This illustration was generated using *The Geometer's Sketchpad*, a software application which is used for understanding geometry.

Geometric patterns inherit a unique blend of symmetry and structure, showcasing the intricate beauty of design. Their evolution highlights the seamless connection between mathematical precision and artistic expression in architecture and art, offering a non-figural representation of the infinite and the eternal.



Ar. Richa Raut (A27775) graduated in 2011 from Rachana Sansad's Academy of Architecture and completed her M.Arch. with her thesis *Ecological Revitalization of Urban Water Bodies along with Integrated Water Edge Design*. Currently she is an Assistant Professor at the Academy of Architecture and associated with *Grassroots Research and Consultancy* as a research assistant and architect. She has worked on many projects related to lake and river restoration in and around Mumbai, urban design projects in Himachal Pradesh, restoration of *kunds* and other ecological and eco-tourism projects. She has also conducted national workshops on these concerns. She has recently co-authored the book *Sikandarrah: Calligraphy, Epigraphy, Geometry, Islimi and Poetry*. She has been working on several publications and has published several articles on ecology and Islamic geometric designs.
Email: richaraut@aoamumbai.in



JIIA Call for Papers, Articles, Projects

The Journal of the Indian Institute of Architects invites original and unpublished contributions from members **ONLY** (academicians, practitioners and students) under the following FIVE categories. Submission in each category is strictly only through the respective google forms.

In order to be accepted for publication, all material sent in these categories should have the following components:

1. MS Word document file with text only. Please do not format it in anyway. The numbered captions for all the images will also be in this document.
2. Folder with all images (minimum 300 dpi), numbered according to the captions given in your text file
3. Photograph of the author/s (minimum 300 dpi).
4. Author biodata – Maximum 50 words.
5. PDF (optional)– showing the intended layout. This pdf should include text and all images, with numbered captions.

Category 1 : Articles

google form link: <https://forms.gle/7pDFva1HDH4hfUyj8>

Essays, interviews, articles (1500- 2500 words), book reviews (600 and 750 words), travelogues, sketches and photo-essays in the areas of architecture, planning, urbanism, pedagogy, heritage, technology, ecology, theory and criticism, visual design, practice or any other relevant subject pertaining to the built environment. (Details of the format will be available on the JIIA website).

- For a design project, please include the 'Fact File' with the following details : Project Name, Location, Plot area, Total built up, Structural consultants, Project completion. Also please give the photo captions and credits. Please ensure that the image is referred to within the text. For eg, "As seen in Figure 1...". This is essential for the layout.
- For design projects, plans and sections of the project are desirable along with the photographs.
- Book reviews should be only of books by Indian authors. please include the "Fact File" with the following details: book title, author name, publisher, year of publication, ISBN, language the book is written in, genre (technical/ fiction/ etc.), no of pages, dimensions (in cm), type (Kindle/ paperback/ hardback), available at (amazon.in/ flipkart.com/ others).
- Please send a write-up of about 200-300 words along with sketches and photo-essays.

Category 2 : Student Work

google form link: <https://forms.gle/hyhsCoK6QPe6qDJu8>

Summaries of dissertations (2000-3000 words) at the level of B.Arch. & M.Arch., and theses at the Ph.D. level. The Guide for that work will be mentioned as the Co-author. (Format will be available on the JIIA website).

Category 3 : Contributions from Chapter Correspondents

google form link: <https://forms.gle/Ru4JBLSHwaYEBTcg7>

(a) *Chapter News*: This includes various interesting activities from the Centres of your Chapters (maxm. 500 words for the news from the *entire* Chapter).

(b) News of conferences by the academic institutes in your respective Chapters.

(c) *Obituaries* : Obituaries of IIA members should consist of the photograph of the departed soul, the dates of birth and death and a short 50-word note.

Category 4 : Research Papers

google form link: <https://forms.gle/Z9YWQQMaw843N1eT6>

Research papers (2000-5000 words) in the prescribed format. The research may be based on their ongoing or completed research. (Format is available on the JIIA website). All contributions in this category will be double blind peer-reviewed before being accepted for publication by academic experts of repute.

Category 5 : Cover Design

google form link: <https://forms.gle/BSkuE5cApXdy7dX1A>

Students from affiliated colleges are invited to design the cover page theme. This should be a graphic based on some aspect of Indian Knowledge Systems. The submission will include the graphic file (jpeg or corel draw); a theme note (with a title) of about 500 words explaining the concept of the graphic.

Please note that the image you send will be adjusted as per the layout requirements of the JIIA Cover.

Please note:

1. All submissions will be accepted only through google forms.
2. Submissions will **NOT** be accepted through email.
3. Any queries to be addressed to : jiieditorial@gmail.com.
4. When you correspond with us, please give your email id (that you regularly use) and your cell no. (preferably with WhatsApp).
5. It is compulsory to mention your IIA regn. No. Submissions will **NOT** be accepted from non-members.
6. The review process takes anywhere between 4-6 weeks. Since it may not be possible to respond to all authors who send in their work, we will definitely revert if and when your work is accepted.
7. JIIA does not charge any fees for publication of any professional or academic work.
8. It is understood that submission from an author is an original work, unpublished anywhere else, and that IIA and JIIA are in no way responsible for any matter or dispute arising out of the publication of the same.
9. All authors are requested to refer to further detailed information available on the JIIA website.

This research paper was presented at the IIA ANVESHAN Research Conference held at MCAP, Thiruvananthapuram, Kerala during 29-31 August 2024, under Stream III: The Projected Future.

Architects Perception on Innovative Incorporation of Upcycling in Architecture

Abstract

The concept of upcycling has gained considerable attention in recent years as a response to the growing concerns over environmental degradation and resource depletion. The architectural industry significantly impacts the environment due to the extensive use of natural resources and the generation of waste. Architects' perceptions of upcycling are not fixed but fluid and adaptable, reflecting the unique blend of personal values, professional experience, and external influences. This diversity in perspective contributes to the richness and variety of architectural designs. This research paper explores architects' perceptions of the innovative incorporation of upcycling in architecture, addressing a wide range of key parameters that influence their design decisions. A qualitative and quantitative research method was followed to facilitate the study being undertaken. The initial phase is succeeded by an in-depth examination of literature papers and the latter portion of the research involves three live case studies in Kerala conducted using various parameters. The survey gathered a total of 25 responses from architects. The study delves into the types of upcycled materials commonly used, the selection process for these materials, their availability in the market, and the impact of upcycled elements on aesthetics, functionality, and sustainability within architectural projects. Majority of architects express a positive inclination towards upcycling, citing environmental consciousness, design innovation and resource efficiency and waste reduction as primary motivators. Architects prefer to collect materials from the site and its surroundings,

nearby demolition sites, and scrapyards. Materials from scrap yards provide old items at a lower cost. This research not only informs our understanding of architects' perceptions but also serves as a catalyst for the proper understanding of the potential of upcycling in shaping a more sustainable and innovative built environment.

Keywords: Upcycling, Sustainability, Functionality, Waste reduction, Resource conservation, Cost efficiency.

1. Introduction

Upcycling, the creative transformation of discarded materials into new and valuable products, stands at the intersection of environmental consciousness and architectural innovation. In the ever-evolving world of architecture, sustainability, and innovation have become defining principles in response to environmental challenges and societal shifts. Upcycling has become a symbol of creativity and innovation, pushing architects to re-imagine discarded materials, historical structures, and underutilized resources in unique and inspiring ways. Upcycling, unlike traditional recycling, enhances the value of waste materials through creative redesign, presenting a promising avenue for sustainable development. This approach not only reduces the environmental footprint but also fosters unique aesthetic and functional outcomes. Incorporating upcycled materials also comes with its set of challenges, these challenges are seen as opportunities for innovation, driving architects to push boundaries and develop ground-breaking solutions. This diversity in perspective contributes

to the richness and variety of architectural design. The perception of upcycling is thus intertwined with notions of beauty, uniqueness, and the potential for each structure to tell a story of renewal and resilience.

1.1. Aim and Objectives

The aim of this research is to examine the perceptions of various architects regarding upcycling, including the potential benefits and limitations of integrating upcycled materials and concepts into architectural practices. The primary objective of this research is to highlight the innovative design approaches and methodologies that promote the seamless integration of upcycling in architectural projects. It aims to examine successful case studies of upcycled architectural designs, analyzing them based on several parameters to illustrate their practical implementation and outcomes. Additionally, the study seeks to identify the challenges and opportunities perceived by architects when integrating upcycling principles into their design processes. By providing recommendations and guidelines, this research aspires to offer actionable insights for effectively implementing upcycling principles in new design practices, thereby fostering more sustainable and creative architectural solutions.

2. Literature Review

The concept of upcycling was first described in a book named *Cradle to Cradle* written by McDonough and Braungart (2002). Upcycling involves transforming waste materials or unwanted products into new, valuable items, often enhancing their quality, functionality, or aesthetic appeal in their second life. Unlike recycling, which typically breaks down materials to their raw form, upcycling creatively repurposes them, adding value without extensive processing. Upcycling and recycling both contribute positively to the environment, but they differ in important ways. Unlike recycling, which involves breaking materials down to their raw components, upcycling preserves the original material's character, making it identifiable in its repurposed form (Sung, 2015). Upcycling has emerged as a sustainable alternative that reshapes our view of waste and resource management. Essentially, it gives new purpose to items that might otherwise be discarded, presenting an inventive solution to the challenges of resource depletion and growing landfill waste. The incorporation of upcycling in small-scale building typologies, such as community buildings, residences, hotel lodgings and pavilions, requires different design considerations compared to large-scale buildings. Upcycling in architecture is

dependent on various factors, including aesthetics, sustainability, social and local factors, functionality, modification requirements, ability to disassemble and material expression. Architectural upcycling is a promising sustainable alternative to mainstream construction practices (Suhaimi & Zin, 2022).

Upcycling plays a crucial role in waste reduction and environmental protection. It inspires individuals to embrace their creativity and push their limits by utilizing upcycling as a means of embellishing spaces with existing materials. Moreover, upcycling not only adds aesthetic value but also raises awareness about the importance of environmental conservation. Incorporation of upcycling, it is essential to understand the distinct qualities of various materials, preservation methods, functionality, and aesthetic worth (Ali et al., 2013).

Utilizing waste materials in design projects through upcycling and reusing can yield social, economic, and ecological advantages. By focusing on material re-use, it presents cost-effective solutions while promoting sustainability through waste reduction and minimizing the consumption of new raw materials. Moreover, upcycled products possess distinctive characteristics that uphold the sentimental worth of pre-existing objects (Hussein et al., 2020).

3. Methodology

A qualitative and quantitative research method was followed to facilitate the study being undertaken. The initial phase is succeeded by an in-depth examination of literature papers, aiming to comprehend the challenges, opportunities and significance of upcycling. Parameters are identified from the literature reviews. The later part of the study is done by live case studies. Three different examples were examined to understand the different perspectives of architects when it comes to upcycling. The first case study is a house called *Canaan*, located in Powdikonam Trivandrum and designed by Ar. Ashims Ravi. The second case study is the *Skin and Bone Residence* in Karivellur, Kasaragod, designed by *Aline Studio*. Lastly, there is the *Kaivalyam*, designed by Ar. Vinod Kumar. Parameters are analysed by the live case studies. The later part of the study is done by survey among 25 architects practising upcycling. The combination of qualitative insights from the literature reviews and case studies, along with the quantitative data from the survey, provided a comprehensive understanding of the current state of upcycling in architecture, highlighting both the potential benefits and the obstacles that architects face in implementing these sustainable practices.

4. Data Analysis and Findings

4.1 Parameters -Analysis

The primary factors that impact upcycling in architecture were determined through the literature reviews. The parameters for the study are shown in Table 1.

4.2 Case study analysis

a) Canaan

The brick house in Thiruvananthapuram showcases traditional Kerala architectural styles. About 90% of the house is made from waste materials, completed in just four months by local labourers. The architects creatively repurposed discarded items like beer bottles, bamboo, glass panes, and iron rods from demolition sites. These materials are transformed into decorative elements like lampshades and wall installations. Inside, there are reused elements like a horse-cart wheel window, bicycle rings in the window grills, and beer bottles as wall installations and lampshades. The house has a diverse range of doors and windows due to the limited availability. The flooring is a mix of broken tile pieces, metal scraps and terracotta. The roofing includes reused Mangalore tiles collected from and a bamboo ceiling in the bedroom. The main roof element represents Kerala’s vernacular architecture. The coconut tree pillar creates a feel of connecting human settlement with the surrounding environment. This house, made from upcycled materials, is a testament to meticulous planning and arrangement, resulting in a unique and aesthetically pleasing structure. (See Fig. 1)

b) Skin and bone residence

The *Skin and Bone Residence*, located in Karivellur, was designed with the client’s request for a unique

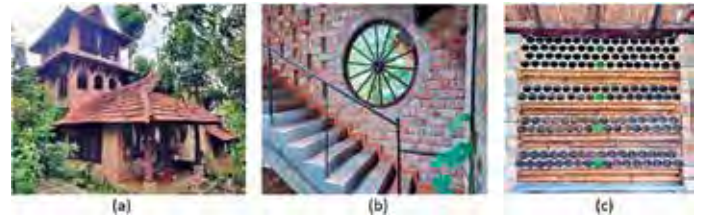


Fig. 1: Canaan
(a) The structure (b) Horse cart wheel window (c) Bamboo installation
Source: Author

building technology and materials in mind. The architects utilized unconventional materials such as coconut shells, broken floor tiles, bamboo stem residuals, jute products and car radiator fans to create an innovative living experience. The front double-height facade is made up of car radiator fans collected from a scrapyards, arranged in different orientations to create aesthetic patterns and allow for airflow in the interior spaces. The walls on the first floor were constructed using coconut shells, while the flooring is made up of broken tile and stone pieces arranged in a geometric pattern. The hollow cut portion of bamboo was used in the window panels and certain partition walls, creating diverse patterns on the floor as sunlight varies. (See Fig. 2)



Fig. 2: Skin and Bone Residence
(a) The structure (b) Car radiator fan façade (c) Coconut shell wall
Source: Author

Table 1: Parameters of Study
(Source: Author)

Parameters	
Material Selection	Choose materials that are durable, sustainable and suitable for the intended purpose.
Aesthetics	Consider the visual appeal and how the upcycled elements enhance the overall design
Functionality	Ensure that the upcycled elements fulfil their intended function within the new design
Sustainability	Evaluate the environmental impact, focusing on reducing waste and energy consumption
Cost -Efficiency	Determine the budget constraints and find cost effective upcycling components
Maintenance	Plan for the long-term maintenance and durability of upcycled components
Client Requirement	Address the specific needs and preferences of the client end users

c) Kaivalyam

Kaivalyam is a residence situated in Kannur, showcasing a unique architectural design that harmonizes with its surroundings. To ensure cost-effectiveness, the architect ingeniously incorporated various upcycled elements throughout the entire structure. Many of these elements were sourced from the site itself, as well as nearby scrapyards and old construction sites. One notable example is the repurposing of electric posts as both lintels and beams, utilizing their existing forms. By integrating these posts into the design, upcycling played a significant role in the planning process. Additionally, the use of reclaimed wood for the flooring not only reduced expenses but also maintained a high standard of quality. The wall lampshades were crafted from bamboo sections, which were also utilized in the staircase design. Furthermore, an unused mahogany tree trunk was repurposed as a pillar in the sit-out area, providing essential support for the roof. The car porch roof was constructed using transformed tar drums, creating flat sheets. Similarly, the exterior toilet structure's walls were made from tar drum tiles, topped with bags of mud. Additionally, hollow bricks, a less commonly found material compared to wood and roof tiles, were repurposed for the roofing process. (See Fig. 3)



Fig. 3: Kaivalyam residence

(a) The structure (b) Electric post as beam (c) Tree trunk as pillar

Source: Author

Materials

Consideration of material durability was of utmost importance in the selection process for these three projects. The materials chosen were the most durable available, with a preference for older materials which have proven to be more durable than newer ones. By reusing these materials, their durability can be ensured. The most durable materials used in upcycled items were reused wood and Mangalore tiles. Suitability was also considered during the material selection phase, as it is crucial to maintain a sense of harmony with the interiors when using upcycled items. Additionally, the aesthetics of the materials were considered in the selection criteria for all three projects, although the specific criteria varied. Selection criteria also considered aesthetics of the material in three projects but varying. (See Table 2)

Table 2: Type of Materials

Source: Author

Project name	Item repurposed	Item reused
1. Canaan	Horse cart wheel – window Coconut tree- pillar Beer bottles –lampshades Bricks and metal – flooring Rings of bicycle –window Old grills –gate Wooden rods –staircase Reinforcement bar –window grills	Beer bottles -wall elements Reused tiles –flooring Wooden elements -roof Mangalore tiles –roofing Windows and doors Rafters
2. Skin and Bone Residence	Car radiator fan – facade Coconut shell –wall Hollow bamboo sections- window panel and partition Mud pot -lampshades	Wood –furniture Mangalore tile – roofing Old chairs Broken tile pieces
3. Kaivalyam	Tree trunk –pillar Old gate –window grills Hollow bamboo section –handrail Electric posts – lintel I metal section –beam Tar drum – roofing, walling Wooden frame –switchboards	Wood- furniture, kitchen cabinets, flooring, staircase, ceiling Old Furniture Beer bottles –wall elements Main gate with old grills Window panels Mangalore tile –roofing Hollow bricks –roofing

Selection Sources

In *Canaan*, the primary material sources include old buildings, government school demolitions, and old mana. In *Skin and Bone* residence, materials are collected from the scrapyards and the surrounding site. In *Kaivalyam*, the majority of materials are sourced from old houses, the scrapyards, demolition sites, and the surrounding area. It is evident that architects typically prefer the scrapyards and demolition sites for material collection in these three projects. Additionally, all materials in these three projects are locally sourced. (See Fig. 4)

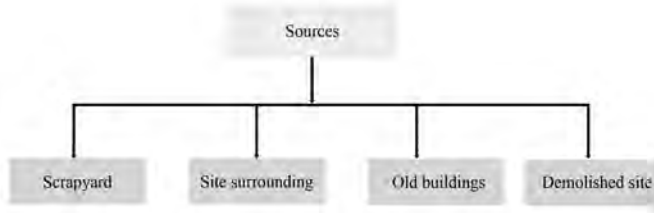


Fig. 4: Sources of collection
Source: Author

Aesthetics in Upcycling

In these case studies, in *Canaan* functionality and sustainability is more important than aesthetics. While considering these two, the aesthetics of space are also maintained. In this house scraps are mainly upcycled with proper planning and ideas. So, the scraps were turned into beautiful interior elements without much alterations. In *Skin and Bone residence*, while using upcycled materials aesthetics is one of the main concerns. Some items undergo modification in order to maintain the aesthetics. For maintaining its aesthetics as well as to create an old rusting touch of Kerala traditional houses many of the items were reused. In *Kaivalyam*, the natural forms of each item are maintained very well without alterations. Aesthetics are not considered as compared to these two projects. Rather, the architects impart due importance to functionality and sustainability. Majority of the scraps used in both interior and exterior were considered with not just aesthetics but of good quality. (See Figs. 5, 6, 7)



Fig. 5: Interior views of Canaan
Source: Author



Fig. 6: Interior views of Skin and Bone residence
Source: Author



Fig. 7: Interior views of Kaivalyam
Source: Author

Functionality in Upcycling

In *Canaan* functionality is considered in some elements and others are for only aesthetic purposes. The horse cart wheel and windows and doors, coconut tree trunk pillar and reinforcement bar, old grills were placed according to functionality as well as sustainability but in case of flooring, brick and metal pattern, roof elements in the front of house, beer bottle walls in the recreational areas are only for aesthetics. In *Skin and Bone residence* functionality of upcycled items is less considered as compared to other two projects. Aesthetics is more important than functionality. Majority of them are placed only to enhance the aesthetics. So, in case specified items are not needed and upcycling has no importance in the planning and designing aspects. In *Kaivalyam* functionality is more important so aesthetics is neglected in some spaces. Electric posts were used as lintels and beams without any alteration. Posts are placed in their natural form with the original names and numbers intact. In some areas, these lintels were projected from the wall without removing the excess portions. The architect provides more importance to functionality as compared to other two projects.

Materials for Upcycling

Natural materials are most preferable for upcycling in order to avoid negative impacts on environments. In *Canaan* natural materials are mostly used as compared to other two. In *Skin and Bone Residence* natural as well as metal scraps were also used. *Kaivalyam* contains the combination of scraps and natural materials. It helps to minimize waste by giving a second life to materials and components, diverting them from landfills. Reused timber, furniture, roof tiles and

flooring materials help for resource conservation and to reduce environmental degradation and depletion of natural resources. Majority of the furniture is used furniture and which enhanced the conservation of raw materials, especially wood, which is really costly.

Client Requirements

In all these three cases, clients required simple, cost-effective and eco-friendly houses having the least negative impact on the environment. The *Skin and Bone Residence* client required a simple and unique house, where the architect used unconventional materials and technologies to make the project unique. Different upcycled materials were used, and experimented with, in different ways while maintaining the client's requirements. In *Canaan*, the architect was greatly inspired by the theories of Ar. Laurie Baker and adopted reused and repurposed materials in his house. The main aim was to provide awareness to the society about the importance of upcycling as well as sustainability through his own residence. In *Kaivalyam*, the client required a house with less cost and also utilizing the elements of the old house and also wastes collected from the scrapyard. (See Fig. 8)

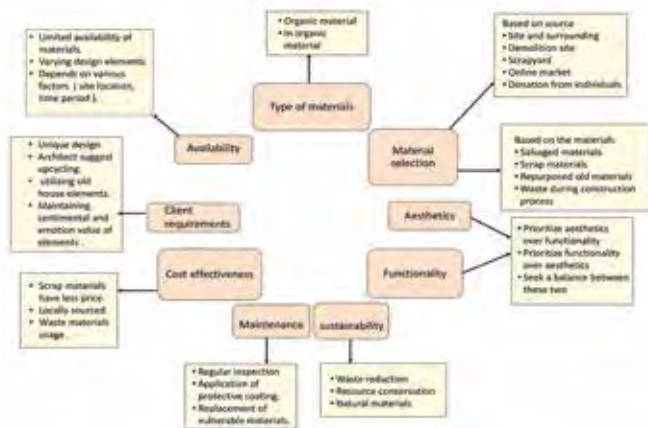


Fig. 8: Elements of Upcycling

Source: Author

Maintenance of upcycled elements

For enhancing the durability of upcycled items, different preservation techniques are used. In *Canaan* and the house of *Kaivalyam* the reused woods and furniture were coated with cashew oil collected directly from the cashew factories. Cashew oils are relatively costly compared to varnish, but more effective and provide protection to reused wood and timber. In the *Skin and Bone Residence* repurposed car radiators fans were painted in contrasting colours to enhance their durability and aesthetics. In *Kaivalyam*, reused wooden steps were used after coating them with cashew oil. Some elements require proper maintenance that depends on the quality as well as its functionality.

5. Results and Discussion

All the parameters are analysed with the data collected by survey. A comprehensive survey was conducted with 25 architects who are actively practicing upcycling in their projects. According to survey results, a significant 82.1 % (See Fig. 9) of respondents concur that upcycling has emerged as a crucial practice in architecture for promoting sustainable and environmentally-friendly design. 14.3% of them consider upcycling to be somewhat important, while no one surveyed believed that it is not important at all. 42.9 % of architects occasionally incorporate upcycling in their projects, with 35.7 % frequently doing so and a smaller percentage of architects rarely incorporating it. Additionally, 17.9 % architects always incorporate upcycling in their projects. (See Fig. 10). Among The 25 architects surveyed, 39.3 % (See Fig. 11) incorporate upcycling in their projects, while less than 25% of the architects incorporate 50-75% of upcycling in their projects. Additionally, 17.9% of the architects include upcycling in their projects to a greater extent, exceeding 75%. Among 25 architects surveyed (See Fig. 12), 78.6 % expressed a preference for both reuse and repurpose, while 10.7% indicated a preference for repurpose and 10.7 % for reuse. Based on the survey findings, architects have indicated that repurposing is predominantly carried out using old building materials. Repurposing is considered a creative approach in utilizing materials that are not typically associated with the construction industry. The architect's motivation to engage in upcycling is diverse, with the primary factor being cost effective, sustainability, waste reduction, and resource management, additionally aesthetic serve as a significant reason for some architects to adopt upcycling. (See Fig. 13). The majority of architects obtain these materials from demolition sites and the site surroundings (60.7 %). (See Fig. 14). Additionally, scrapyards serve as a primary source for these materials (50%). 10.7% of architects rely on online markets or donations from individuals. Based on the survey (See Fig. 15), 67.9% of architects believe that the use of upcycled materials depends on the unique context and goals of the project. It can be inferred that the 10.7 % of architects prioritize modifications for upcycled materials for specific project requirements. Additionally, 21.4 % of the architects prioritize the use of natural forms of upcycled materials. The uncertain quality of upcycled materials and the limited availability of materials are significant concerns for the majority of architects (See Fig. 16). Additionally, 7.1 % of architects were concerned about the high cost of materials and 10.7 % of them concerned about the lack of diversity in upcycled materials. Architects

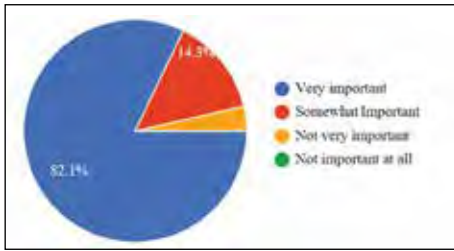


Fig. 9: Importance of Upcycling

Source: Author

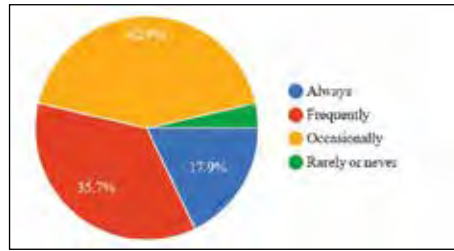


Fig. 10: Incorporation of Upcycling in Architecture Projects

Source: Author

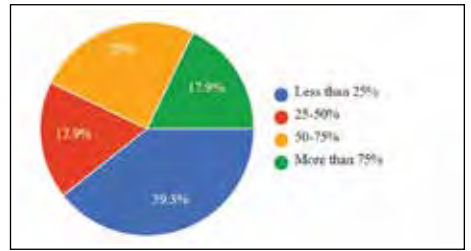


Fig. 11: Percentage of involvement of Upcycling

Source: Author

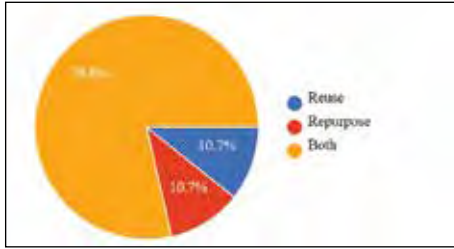


Fig. 12: Type of Upcycling

Source: Author

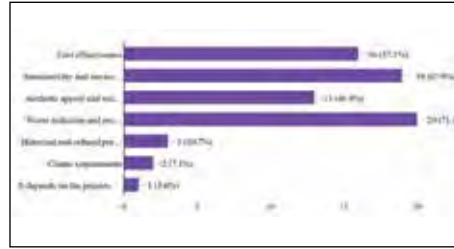


Fig. 13: Motivating Factors of Upcycling

Source: Author

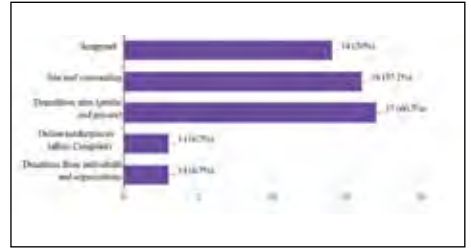


Fig. 14: Type of Collection Sources

Source: Author

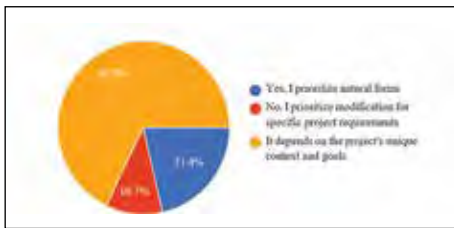


Fig. 15: Natural Forms and Modification in Upcycling

Source: Author

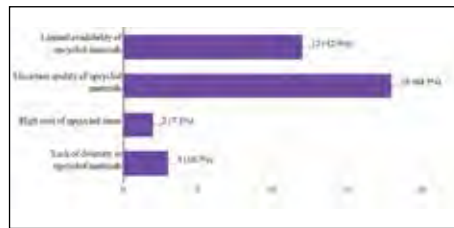


Fig. 16: Availability and Suitability of Materials

Source: Author



Fig. 17: Selection Criteria of Materials

Source: Author

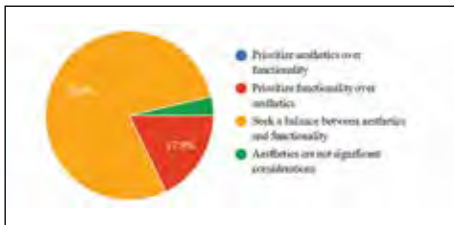


Fig. 18: Aesthetics and Functionality

Source: Author

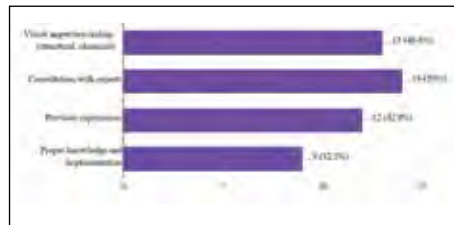


Fig. 19: Quality and Suitability

Source: Author

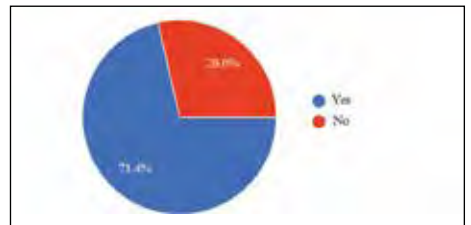


Fig. 20: Social Response to upcycling

Source: Author

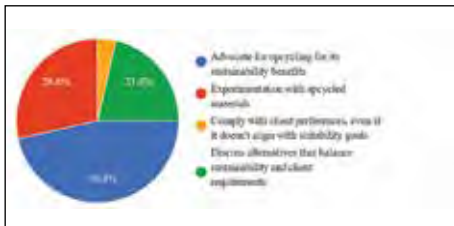


Fig. 21: Design Approaches in Upcycling

Source: Author

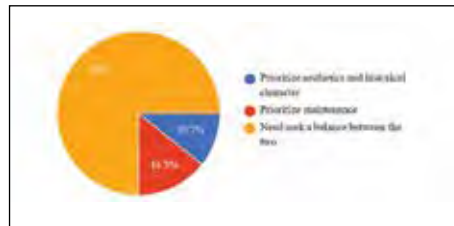


Fig. 22: Historical Characteristics in Upcycling

Source: Author

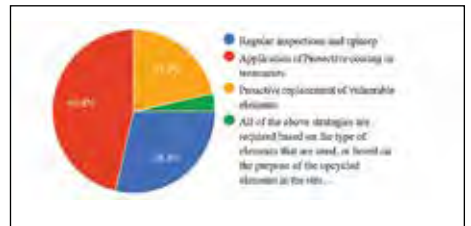


Fig. 23: Maintenance Strategies in Upcycling

Source: Author

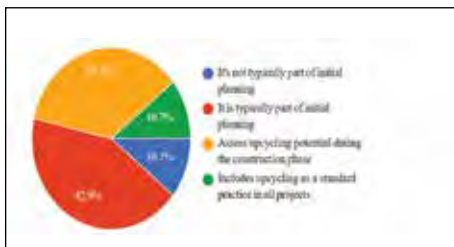


Fig. 24: Incorporation of Upcycling in Initial planning.

Source: Author

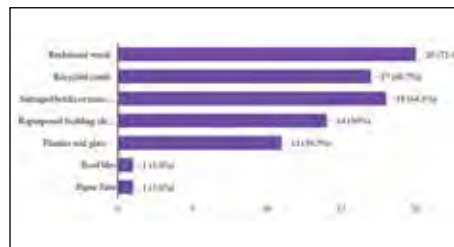


Fig. 25: Suitable Materials for Upcycling

Source: Author

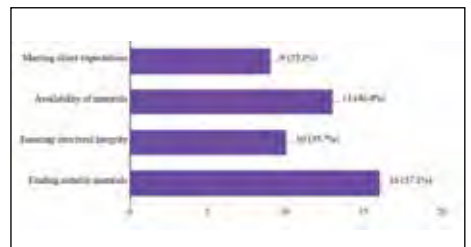


Fig. 26: Challenging Aspects of Upcycling

Source: Author

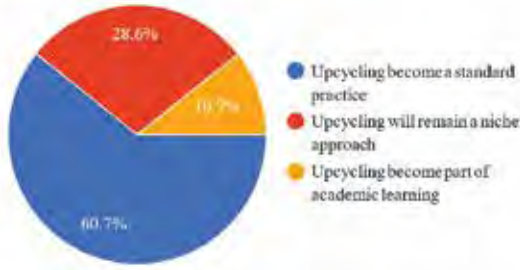


Fig. 27: Future of Upcycling
Source: Author

prioritize various factors when selecting upcycling materials. According to the survey, all factors are equally important, including durability and longevity, quality, cost, uniqueness, and sustainability (See Fig. 17). Among these factors, cost and quality are considered to be more significant by architects. 57.1% of architects consider cost effectiveness and quality as the most crucial factors when choosing materials for a project. On the other hand, 50% prioritize durability and longevity. Meanwhile, 46.4% give importance to uniqueness and visual appeal. 78.6 % architects strive to achieve a harmonious blend of functionality and aesthetics, while a smaller portion (17.9%) prioritize functionality alone. (See Fig. 18). No architect prioritizes aesthetics over functionality. The determining factor varies based on the design, project context, and client requirement. Most people believe that incorporating upcycled elements can effectively fulfill both functional and aesthetic requirements. 50% of the architects typically seek consultation with experts to maintain proper quality and suitability of available upcycled materials, and equally rely on visual inspection, 42.9 % of architect respond as previous experiences, and 32.1 % responds as proper knowledge as alternative approaches to assess the quality and suitability of upcycled materials. (See Fig. 19). Approximately 71.4% of architects are likely to face clients who exhibit initial hesitation or skepticism towards incorporating upcycled materials in their project (See Fig. 20). Architects agree that integrating upcycling will become a prevalent trend in the future. However, a group of architects believe that it is not a top priority for most clients. However, in contrast to previous years, individuals now have a greater appreciation for the significance of sustainability and upcycling. According to architects practicing upcycling, 46.4 % of architects will advocate for clients to engage in upcycling due to its sustainability benefits (See Fig. 21). Additionally, around 28.6% of architects are inclined to experiment with upcycled materials in order to create distinctive designs. 21.4% of architects prioritize client preferences, even if sustainability criteria are not incorporated,

very few of them will comply with client requests that do not align with sustainability criteria. 75 % of architects place a higher priority on the aesthetic and historical aspects rather than maintenance criteria (See Fig. 22). They aim to preserve upcycled items that possess both historical and aesthetic value. Only 14.3 % of architects prioritize maintenance, while 10.7% architects emphasize the need for a balanced approach between upcycling and maintenance. 46.4 % of architects offer a protective coating or treatment for the maintenance and long-term utilization of upcycled materials criteria (See Fig. 23). Conversely, 28.6 % of architects opt for regular inspection and upkeep. A limited number of architects (21.4%) favor proactive replacement of vulnerable elements, while the rest employ a combination of the aforementioned techniques, depending on the project's scale and the quality of the upcycled items. Among the architects selected, 42.9% concur that upcycling has become a customary component of the initial planning process (See Fig. 24). Meanwhile, 35.7 % of architects evaluate the potential for upcycling during the construction phase, considering various factors such as the availability of essential resources. Additionally, 10.7% of architects integrate upcycling into their projects as a standard practice. As shown in Fig. 25, 71.4% of architects prefer reclaimed wood as the most suitable upcycled material for both sustainability and environmental friendliness. Additionally, brick masonry and repurposed old building materials are also considered suitable for upcycling. 60.7% prefer recycled metals and 64.3% of architects prefer salvaged brick masonry. Roof tiles, and paper tubes are also favoured by a smaller number of architects. According to 57.1% of architects finding suitable materials for project context is considered as the main challenge (See Fig. 26). 46.4 % of them respond as the most challenging aspect is availability of materials. While meeting client requirements and maintaining structural integrity is another challenge faced by architects. 60.7 % of architects have recommended the adoption of upcycling as a standard practice (See Fig. 27). However, 28.6% of respondents believe that it will continue to be a niche approach, while the remaining architects (10.7%) propose its integration into academic curricula.

Based on the survey findings, architects have shown a preference for various materials when it comes to upcycling. For reusing purposes, they particularly favor Mangalore tiles and salvaged wood. The old wood is carefully seasoned to ensure it meets functional requirements effectively. The most commonly preferred materials for upcycling

include wood, C & D wastes, shipping containers, ferro-concrete, electric posts, concrete wastes, jutes, paper tubes, beer bottles, and truck air filters. Additionally, architects believe that any item can be utilized for upcycling purposes.

6. Conclusions and Recommendations

Architects have a unique vision for upcycling, often motivated by environmental consciousness, design innovation, resource efficiency, and waste reduction. They aim to reduce landfill waste, create unique projects with unconventional materials, and minimize construction waste on-site. Upcycling encourages sensible design ethics, emphasizing the reuse and reinvention of materials. Most architects incorporate upcycling by reusing and repurposing building elements such as flooring, roofing, and furniture. Salvaged wood, for example, is a popular upcycled material due to its cost-effectiveness and conservation of raw materials. Wooden doors, windows, and old furniture can be repurposed into new items like furniture, flooring, panelling, art pieces, and home décor. Wood joinery, columns, and beams are also commonly upcycled. Both organic and inorganic materials are upcycled based on their availability and suitability for projects.

Materials are sourced from various locations, including the project site, nearby demolition sites, scrapyards, and online markets. Scrap yards and online platforms provide affordable materials, enabling architects to create unique designs within limited budgets. Quality, cost-effectiveness, durability, and client requirements are key considerations in selecting upcycled materials. Some materials retain their natural form, while others undergo modifications to enhance aesthetics and functionality. Challenges in upcycling include material availability and quality, client expectations, structural integrity, and suitability for exterior projects. Architects often reuse building components or incorporate upcycled materials in interiors to address these challenges. Protective coatings or treatments, such as cashew oil for wood, help maintain and prolong the use of upcycled materials.

Upcycling encompasses a wide range of materials, including construction and demolition waste, shipping containers, concrete waste, paper tubes, beer bottles, wooden joinery, tiles, bricks, plastics, metal scraps, and jute. Repurposing materials offers greater creativity and uniqueness compared to simply reusing them. Young architects are encouraged to explore the diverse range of upcycled materials instead of relying on conventional building materials. Architects' perceptions are influenced

by factors such as material availability, quality, collection sources, maintenance, functionality, sustainability, aesthetics, and client requirements. Despite challenges, many architects have a positive inclination towards upcycling, citing environmental consciousness, design innovation, and resource efficiency as primary motivators. Balancing sustainability goals with practical considerations is crucial, as architects navigate concerns about structural integrity, regulatory constraints, and material availability.

Case studies from Kerala highlight diverse upcycling strategies and outcomes within the architectural community, inspired by the principles of Laurie Baker, who is regarded as a significant influence. These studies showcase the rich experiences and challenges faced by architects incorporating upcycling into their projects, emphasizing the social responsibility of sustainable practices.

This research contributes valuable perspectives to the discourse on upcycling in contemporary architecture, highlighting its potential to shape a more sustainable and innovative built environment. Recommendations include sourcing materials, best practices for sustainability, and effectively communicating the benefits of upcycling to clients. By fostering an understanding of upcycling's potential, this study aims to catalyze its broader adoption in architectural practices.

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Relationship between Art and Architecture

Ar. Mahesh Bangad and Rama Velankar

The discipline's foundation has always included the integration of art and architecture. However, it was given a new meaning and social function during the early 20th-century Avant-garde movement, making it one of modernism's most defining features. The user's emotional life can be shaped by artistic expressions, and the marriage of architecture and art can imbue a place with a new meaning that transcends purpose and technique and expresses a feeling of community. The works of some of the greatest contemporary architects, such as Oscar Niemeyer, Le Corbusier and Mies van der Rohe, to name a few, demonstrate this close relationship.

The outcome is an ensemble of enormous artistic worth that both subserviently complements and enhances architecture, according to French historian Yves Bruand. Architecture is a technique that fulfils both utilitarian and aesthetic goals by addressing both expressive and practical demands. These two ends can be identified from one another, but they cannot be divided, and there can be wide differences in how much weight is assigned to each. The structures built by settled or nomadic communities disclose a great deal about their history, traditions, surroundings and artistic sensibility, among other things, because these societies have spatial relationships to each other and the natural world.

When an artist recognises that his soul has emerged on canvas, his work is complete; when an architect recognises that a piece of his soul has found expression in architecture, his work is complete. Architects may be quirky thanks to art and amazing things may happen when art is applied. It enables the creators to express their ideas in a highly imaginative way. The secret is to know when to ask why, not to

ask why and when to answer why! The miracle of art lies in its ability to convey both the presence of the creator and human consciousness.

The factor of timelessness is one of the most significant aspects of architecture. Considering the most notable instances throughout history, where do you believe the eternal nature of art and architecture originates? Well. That's my assumption. Architects who are also artists design spaces that convey ideas or evoke emotions in addition to being functional.

Since one can only hear the faint sounds of the outside world beyond enormous concrete walls, Libeskind's "between the lines" design of the Holocaust Tower at the Jewish Museum in Berlin (see figure 1), for



Figure 1: The Holocaust Tower, Jewish Museum Berlin, Germany
Source: <https://www.flickr.com/photos/inhiu/8105607816>

instance, evokes a sense of entrapment, isolation, and hopelessness. This is accurate enough, given how one must feel when leaving Berlin's history.

On the other side, Zaha Hadid tried to increase the scope for the integration of art into a conventionally designed fire station structure. She was effective in capturing "frozen movement" in building by translating a painting. Her project, the Vitra Fire Station, would have been the ideal illustration of an effort to blend beauty and utility (see figure 2). However, the audience has altered the building's overall function due to their desire to admire it but lack acceptance overall. It's disappointing that the structure, which was supposed to be a fire station, is now an exhibition area.

It was anticipated that this kind of cooperation would occur even on the building site, fusing manual and mental effort into a common endeavour. An architect should be as conversant with painting as a painter is with architecture, as the principal proponent Walter Gropius once stated. Designing a building and then hiring a sculptor is wrong and will break the architectural coherence. Perhaps the closest thing to this paradise in Brazil is the Capanema Palace in Rio de Janeiro, which benefited from the early support of Candido Portinari, Bruno Giorgi and Burle Marx. Figure 3 illustrates how art can be seamlessly incorporated into architecture in the modernist style.



Figure 2: Vitra Fire Station, Germany
Source: <https://www.zaha-hadid.com/architecture/vitra-fire-station-2/>



Figure 3: Art And Architecture In Modernism
Source: <https://www.archdaily.com/>

The hours of planning and execution, rather than the "aha" moment, are what lead to the final product in both building and art. If the career path of an artist were compared to that of a tornado, one could imagine that the ferocity of all artistic endeavours revolved around the creator's desire to find serenity and tranquillity in the middle of the storm. Form, colour, texture and material are employed in art to depict concepts, identities, civilisations and communities in the case that the architect is alive. While builders and engineers might have the technical know-how to build a structure, only architects have the training, experience, talent and years of study in aesthetics required to produce architecturally important structures. Although there is a definite overlap, there are some conflicts between art and architecture. This is a brief history of an architect and a contemporary artist who collaborate by using each other's ideas and techniques.

In the 1990s, two renowned Indian creatives, MF Hussain and BV Doshi, united their efforts and the finest of both cultures to create the most surprising environment where people could experience architecture and art. Figure 4 showcases 'Amdavad ni Gufa,' an underground art gallery in Ahmedabad designed by architect B.V. Doshi, featuring artwork by renowned artist M.F. Husain. A prime example of a partnership between art and architecture is Hussain-Doshi Gufa. Even if we look at the histories of art and architecture individually, we cannot help but notice that the experiences and connections between them have always formed a network that has brought about significant evolution. Nearing a century old, Gehry at the age of 91, is still advancing architecture. He is renowned for his proactive, technically demanding



Figure 4: Amdavad Ni Gufa

Source: <https://surfacesreporter.com/articles/71953/amdavad-ni-gufa-by-b-v-doshi>



Figure 5: Ar. Neri Oxman

Source: https://en.wikipedia.org/wiki/Neri_Oxman

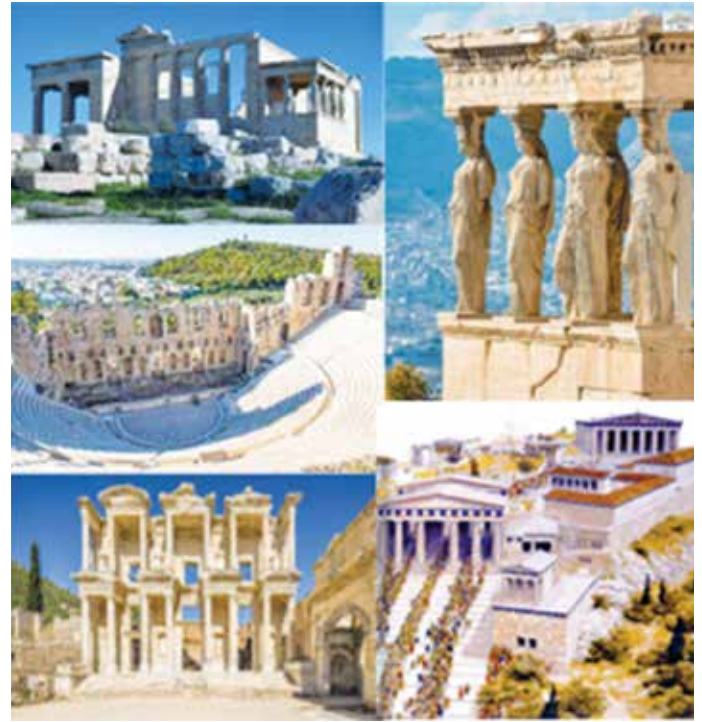


Figure 6: Classical Architecture

Source: https://www.angelfire.com/hi5/interactive_learning/yr7greecefiles/Greek_Architecture2.htm

structures that challenge genre and ignite passionate discussion. He is constantly searching for inspiration in art. Neri Oxman is the best example of the situation in the field right now (see figure 5). She may not express her artistic feelings and ideas openly, but she has figured out how to decipher the network and link all the dots between science, engineering, art, and design to create unbelievable pieces using materials that are beyond our wildest dreams and taken from the living world.

When we look at art, we are looking at that cultural behaviour and having our worldview challenged. All this did was lead me to the idea that information and creativity flow through disciplines. Thus, if you believe in Cinderella's moment, you know that Picasso and Einstein meet there at midnight, the meeting point of art and science. Only if you put aside your scepticism and have faith in magic, will it come to pass!

The civilisation that creates the arts is reflected in them. This particularly applies to the Greeks of antiquity. Greek temples, sculptures and ceramics all reflected arete, a major idea in Greek civilisation. In Greek, arete denoted excellence or realising one's potential. Figure 6 shows examples of classical Greek and Roman architecture, highlighting the integration of art that reflects their cultural heritage. Greek and Roman art placed a strong emphasis on the value and achievements of humanity. Greek art was primarily

made in the image of the gods, even if the gods were the subjects of most of it. Much of the artwork was intended for public exhibition and was funded by the government. As a result, the city was filled with examples of both architecture and art, which gave its residents great pride. A city-state would typically set aside a high-altitude area of land for an acropolis, a significant area designated for palaces or temples. Greeks hosted important political assemblies, religious festivals, and other events at the acropolis. The civilisation that creates the arts is reflected in them. For the Greeks, arete represented greatness and realising one's potential. A fundamental aspect of the history of art and architecture is the examination of pictures, objects, and structures. It is exceptional that it fosters a high degree of visual literacy that is transferable to numerous professional pathways. It looks at the reasons for the appearance of art and tries to ascertain what it might reveal about the societies that produced it.

In conclusion, finding the ideal balance can be challenging, as can the procedure. How to combine art and architecture to create a setting that is visually striking? The question of whether architecture is art has been fervently debated for decades. Some contend that architecture is a form of self-expression and is therefore art, while others contend that architecture is egotistical and leads to "starchitecture". Although anything can go wrong, the combination of architecture and art has the potential to be greater than the sum of its parts. Achieving the ideal equilibrium might be compared to an artistic endeavour.

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REMINISCING PADMA AWARDEE INDIAN ARCHITECTS

By Prof. Subodh Shankar

Every professional, especially one involved in creative pursuits like architecture, is always eager for the recognition of their creation. In India, the highest recognition is through the Padma Awards, presented by the President of India most ceremoniously. So far only fourteen architects have received these accolades during the last 69 years since the inception of these Awards in 1955. However, there has not been any compilation of the recipients of these coveted Awards. This article reminisces and brings forth the brief biographies of such luminaries.

INTRODUCTION

The Padma Awards are one of the highest civilian honours of India announced annually on the eve of Republic Day seeking to recognize achievements in all fields of activities or disciplines where an element of public service is involved.

Besides the Bharat Ratna, the Awards are given in three categories:

- Padma Vibhushan : for exceptional and distinguished service
- Padma Bhushan : for distinguished service of a higher order
- Padma Shri : distinguished service

The Award seeks to recognize achievements in all fields of activities or disciplines where an element of public service is involved. These Awards were instituted in the year 1955.

The awardees do not get any cash reward but a certificate signed by the President of India apart from a medallion they can wear at public and government functions. The Awards are, however,

not a conferment of title and the awardees are expected not to use them as prefixes or suffixes to their names. The Awards are given in predefined categories: Art, Social Work, Public Affairs, Science and Engineering, Trade and Industry, Medicine, Literature and Education, Civil Service and Sports. Architects are categorized under the heading 'Science and Engineering'.

So far only fourteen architects have received these Awards. Out of these, Ar. B.V. Doshi has received all the three Awards (Padma Shri-1976, Padma Bhushan-2020 and Padma Vibushan-2023), while Charles Correa (Padma Shri- 1972 and Padma Vibhushan- 2006) and Habib Ur Rahman (Padma Shri- 1955 and Padma Bhushan- 1974) have received 2 Awards each.

The article dwells on the brief biographies of such great luminaries.



1. Habib Ur Rahman (1915 - 1995)

Padma Shri – 1955; Padma Bhushan - 1974

Habib Ur Rahman was the first architect to have been conferred with the coveted Padma Shri Award in its first year of inception, 1955. Born in Kolkata (then Calcutta) in 1915, he studied Mechanical Engineering at Calcutta University (1939) before studying for

B.Arch. (1943) and M.Arch. (1944) at Massachusetts Institute of Technology (MIT). He is the first Indian to have completed his architectural degrees at an American University. At MIT, he was taught by many world-renowned luminaries including Walter Gropius, with whom he got his first job too. Later, he worked in Boston, USA with Lawrence B. Anderson, William Wurster and Ely Jacques Kahn.

After gaining world-class experience he returned to West Bengal, India in 1946 where he as a senior architect at Bengal PWD and designed numerous governmental buildings. Based on his calibre and experience he was appointed as the Chief Architect to the Central Public Works Department (CPWD) of the Government of India in 1953 in New Delhi. As head of the Architecture Wing of CPWD, he designed buildings that redefined the governmental architecture of those times. To name some of his outstanding works we remember the UGC Building, the Auditor General Building, and the Accountant General Building, all built between 1954 and 1955 in New Delhi, the capital of India. The Lalit Kala Academy building, Rabindra Bhawan, Triveni Kala Sangam, Delhi Zoo, etc. are also his creations. He is also remembered for the 'double-height' balcony concept adopted in residential flats at R.K. Puram, New Delhi, popularly known as 'Rahman-type' flats.



2. Ar. Charles Correa (1930 – 2015)

Padma Shri-1972; Padma Vibhushan- 2006

Charles Correa was born in Hyderabad-Secunderabad twin city in India on 1 September 1930. He studied architecture at the Michigan University and the Massachusetts Institute of Technology (MIT). After completing his studies and internship, in 1958 he came back to his motherland, India, to start his practice in Mumbai.

All his initial works are embodied with a traditional touch and blending of local cultural values. He is known for the use of contemporary materials and design principles, climate responsiveness and greater consideration of the site.

Besides architecture, Correa ventured into urban planning and advocated low-rise development matching the human scale. In 1989 Correa was made

the first Chairman of the National Commission on Urbanization.

Some of his outstanding buildings are- Jawahar Kala Kendra, Jaipur; Tube House, Ahmedabad; National Crafts Museum and LIC building at New Delhi; Bharat Bhavan, Bhopal; Inter-University Centre for Astronomy and Physics, Pune; Mahatma Gandhi Memorial, Sabarmati, Ahmedabad and Kanchanjunga Apartments in Mumbai.



3. Ar. Balkrishna Vithaldas Doshi (1927 – 2023)

Padma Shri- 1976; Padma Bhushan-2020; Padma Vibhushan-2023 (Posthumous)

The lone Indian recipient of the Pritzker Architecture Prize, Balakrishna Doshi, was born in Pune, India in 1927. Like most of his contemporaries, he undertook his undergraduate studies in architecture at Mumbai's Sir J.J. School of Art. Later he completed his postgraduate studies at the Illinois Institute of Technology, USA under the able guidance of the world-famous architect - Ludwig Mies van der Rohe.

Doshi's deep understanding of the Indian context and culture is distinctly visible in his buildings. All through his life, he advocated and also practiced the use of traditional building materials and techniques in contemporary architecture. He was also been a keen supporter and practitioner of sustainable design and the use of passive cooling techniques in buildings. Most of his buildings are designed to minimize energy consumption and to be in harmony with the natural environment. He also believed in the integration of natural and built environments, and many of his designs incorporate elements of nature, such as gardens and water bodies, etc.

Doshi was awarded the prestigious Pritzker Architecture Prize, considered the 'equivalent' of the Nobel Prize in for his architecture in 2018, and has the distinction of being the only Indian architect to have received this Award. He is the only architect to have received all three categories of the Padma Awards- Padma Shri, Padma Bhushan and Padma Vibhushan.

Some of the important works of Doshi include Aranya Low-Cost Housing, Indore; National Institute of Fashion Technology (NIFT) Campus, Gandhinagar; Tagore Memorial Hall, Ahmedabad; Amdavad ni Gufa, Ahmedabad; IIM Bangalore Campus; CEPT University, Ahmedabad, etc.



4. Ar. ACHYUT PURUSHOTTAM KANVINDE (1916-2002)

Padma Shri- 1974

Achyut Purushottam Kanvinde popularly known as A.P. Kanvinde was born in the Konkan region of Maharashtra, India. Being the son of an art teacher, he took up the profession of architecture. He studied architecture (1935-40) at the Sir J.J. School of Art, which was then the only institution imparting architecture education in India. Later, in 1945, he went to Harvard and obtained his Master's degree in architecture. During his studies, he was deeply influenced by the works of Walter Gropius. On his return to India, in 1947, he was appointed as the Chief Architect of the Council of Scientific and Industrial Research (CSIR), where he designed the most modern research laboratories and research centres across the country. Like his contemporaries, he too advocated and practiced the adoption of human values in architecture. He believed that India's rich heritage should become a key influencer in architectural design. In his words, *'Over the years I have come to believe an architect must develop sensitivity to human nature and respect to human values.'*

Some of the important works of Kanvinde are - National Science Centre, Iskcon Temple and National Dairy Development Board in Delhi; Indian Institute of Technology, Kanpur; Harivallabhdas House, Ahmedabad; Dudhsagar Dairy, Mehsana, etc.

In partnership with Er. Shaukat Rai, he opened the firm *Kanvinde, Rai, and Chowdhury* in New Delhi. In 1976, He was elected the by The Indian Institute of Architects (IIA) to be conferred with the most-coveted *IIA Baburao Mhatre Gold Medal* in 1985.



5. Ar. MOHAMMED FAYAZUDDIN NIZAMI (1903-1977)

Padma Shri – 1977

Born in Hyderabad, he studied at the Sir J.J. School of Art and AA School of Architecture, London (1929-1934). Upon completion of his studies, he returned to India in 1934 and started working for the Government of Hyderabad State as a Town Planner where he prepared the master plan for the city of Bahawalpur. He was a Founding Member of the Institute of Town Planners, India, and became its first president in 1951. Based on his wide experience and calibre, he was first made the Chief Town Planner and later the Director of Town Planning of the State.

His major projects in Hyderabad include the State Bank of Hyderabad building (1952), Gandhi Bhavan (1956), Ravindra Bharathi (1961) and the new building of the Salar Jung Museum, (1968). He was also responsible for drawing up the master, regional and town planning for many cities in the Nizam's dominion including The city of Greater Hyderabad. He was subsequently invited to develop the planning for the cities of Jamshedpur, Udaipur, Bhopal and Bikaner.



6. Ar. JUGAL KISHORE CHAUDHARY (1918-1998)

Padma Shri- 1977

Born in 1918, in Goalpara, Assam, Jugal Kishore Chaudhary graduated from the Sir J.J. School of Art, Bombay. Thereafter, he studied Town Planning at London University and Regional Planning at the University of Tennessee, USA. After working in the USA, Chaudhary returned to India in 1950 and was appointed Consulting Architect with the Government of Punjab and remained in this position till 1957. As a Consulting Architect, he worked closely with Le Corbusier and Pierre Jeanneret in the development

of the capital city of Chandigarh and contributed significantly to introducing modern architecture in Punjab.

Chaudhary established his architectural practice in 1957 in New Delhi. During his four-decades-long architectural practice, he designed several large-scale projects in northern and eastern India. His notable projects include several educational institutions, hospitals and industrial townships. The campuses of the Indian Institute of Technology (IIT), Delhi and Punjab Engineering College (PEC), Chandigarh are his most important contributions in the domain of campus design architecture and urban design. He has famously said, '*Good architecture is a fusion of emotion and intellect.*' The Indian Institute of Architects honoured Ar. Chaudhary with the most-coveted *IIA Baburao Mhatre Gold Medal* in 1994 for his outstanding contribution to the field of architecture.



7. Dr. JAI RATAN BHALLA (1922- 2017)

Padma Shri-1985

Dr. Jai Ratan Bhalla will be remembered for providing legality to the architectural profession in India through the *Architects Act* of 1970. He studied architecture at Sir J.J. College of Art in Bombay and then went to England for higher studies and practical training in 1945. Thereafter, he set up his firm first in Nairobi titled *Bhalla and Thakore* and then in 1956 in New Delhi, called *Bhalla, Sharma and Puri*.

Along with his roaring practice, he became proactive in the profession too. Starting in 1957, he was elected as the Hon. Secretary of the Northern Chapter of the Indian Institute of Architects for 6 years and then became its National President from 1966 to 1971. Later, he was elected as the president of the Commonwealth Association of Architects. He also chaired the Union Internationale des Architectes (UIA) from 1975 to 1979. He was also the Chairperson of the Board of Governors of the School of Planning and Architecture (SPA), New Delhi in 2 slots (1971-79 and 1983 – 87).

He is considered the most instrumental individual in the processing of the Architects Act, passed by the Indian Parliament in 1972. He was de facto nominated

as the first President of the Council of Architecture established under this Act and continued in this position till 1997.

From 1993 till his death in 2017, he headed the firm known as *Stein, Doshi and Bhalla* having its headquarters in New Delhi. Notable projects of this firm are India International Centre, India Habitat Centre, Ford Foundation Office Building, and United Nations Development Office, all located in New Delhi.



8. LAURIE BAKER (1917- 2007)

Padma Shri- 1990

A firm believer in Gandhian philosophy, the world-renowned architect, Laurie Baker was born on 2 March 1917 in Birmingham, UK. Having started his professional career in the United Kingdom, his chance interaction with Mahatma Gandhi fascinated him to move to India in 1945. Here, Baker discovered his true abode and dedicated his life to creating architecture most suited to the Indian ethos and climate. Later in his life he also became an Indian citizen.

Baker's architectural style is well recognized for extreme simplicity, vernacular traditions, use of locally available materials and above all, adaptation to the local climate. He believed in harmonizing and blending the buildings with the natural landscape. In all his buildings he extensively used locally available bricks, stone and wood. This way he helped in minimizing the environmental impact of construction while preserving the cultural identity of the region. In a true sense he followed the principles of sustainability and was a visionary ahead of his times.

Important works of Baker include Leprosy Homes for the Mission to Lepers across India; Allahabad Agricultural University; Lucknow Psychiatric Centre, Noor Manzil and Literacy Village at Lucknow; Houses for the Archbishop of Trivandrum; Loyola Women's Hostel; St. John's Cathedral, Thiruvella; Fishermen's Village, Poonthura Mitraniketan, Vellanad; The Indian Coffee House at Thiruvananthapuram, Kerala.



9. Ar. JOSEPH ALLEN STEIN (1912- 2001)
Padma Shri -1992

One of the Indian grandmasters, Joseph Allen Stein was born, in Omaha, Nebraska, USA on 10 April 1912. He studied architecture at the University of Illinois, the École Nationale Supérieure des Beaux-Arts in Paris and the Cranbrook Academy of Art, New York.

Although, he was greatly influenced by the works of Frank L. Wright and Louis Sullivan, he became fascinated with Indian culture and ethos and moved to India in 1952. Here he first joined Calcutta-based Bengal Engineering College's Architecture Department as its head. Later, he shifted to New Delhi and associated himself with two legendary architects, B.V. Doshi and Dr. J.R. Bhalla and partnered with a world-renowned firm titled *Stein, Doshi and Bhalla* (SDB) Consultants.

In India, he felt the need to find appropriate solutions for low-cost housing and started researching about it. He exhibited his researched solutions at the International Exhibition of Low Housing in New Delhi. He later successfully undertook government housing projects in West Bengal and Orissa where he displayed the social realities through economic design solutions that were a great reflection of his simplistic philosophy.

His remarkable works in India are- India International Centre, the India Habitat Centre, the Triveni Kala Sangam, the Ford Foundation headquarters, the Indian Express Tower, the American Embassy School and the Australian High Commission's Chancery.



10. Ar. Coimbatore Narayana Rao Raghavendran
Padma Shri- 2011

Coimbatore Narayana Rao Raghavendran (C.N. Rao) is an architect from Chennai, India. He graduated from the Indian Institute of Technology, Kharagpur (1965) and completed his higher studies at Cornell

University, USA. After working in Boston, USA for a short spell, he returned to India to join his family business established by his father, C.R. Narayana Rao.

His focus area is sustainability and he has extensively worked on eco-friendly principles, conducive to intelligent building concepts. He has been responsible for successfully executing a wide variety of out-of-the-box projects for clients in India and abroad. His firm's commitment to the practice of green building concepts resulted in him being selected as the Chairman of LEED India.

For his project 'Ebene Cyber Tower at Mauritius', he was awarded the *Intelligent Building of the Year Award 2005* conferred by the US-based research organization *Intelligent Community Forum* (ICF).

Ar. Raghavendran is also the recipient of many prestigious Indian awards, including the *IIA Design Excellence Award* for the Jawaharlal Nehru Stadium at Chennai (1995) and the *Architect of the Year Award*. His important works include *Anna* the Centenary Library and DePuy Institute at Chennai; Institute for Finance Management and Research, Sri City, Andhra Pradesh, etc.



11. Ar. GOPALAN NAIR SHANKAR
Padma Shri – 2011

Gopalan Nair Shankar, is an architect from Kerala. He graduated with a B. Arch. from the College of Engineering, Trivandrum in 1982 and later did his M.S. from Birmingham School of Architecture, UK. He also has a PG diploma in Journalism.

As Chairman of the *National Committee of Disaster Resilient Techniques*, he has also been instrumental in framing laws, guidelines and policy intervention in the area of disaster management and rehabilitation. Although he does not have large monumental buildings to showcase his talent, the *Habitat Technology Group*, created by him in 1987 has been instrumental in designing and constructing numerous disaster-resilient buildings that have withstood major natural hazards. He has also been involved in the design and construction of many other such post-crises buildings in various parts of India and the

South Asian countries. He has also been instrumental in the rehabilitation and disaster management for the victims of the Bhopal gas tragedy of 1984. He is the recipient of three national awards for Green Architecture, Slum Resettlement and Eco City design. Due to his immense contribution towards green architecture, he is also called a 'people's architect'.



12. Ar. HAFEEZ CONTRACTOR (b. 1950)

Padma Bhushan- 2016

Born on 19 June 1950 into a Parsi family in Mumbai, Hafeez Contractor studied architecture at the Academy of Architecture, Mumbai. He completed his Master's degree from Columbia University, USA.

He owns one of the largest architectural offices in India and is known for specializing in high-rise and large building complexes. He follows a modernistic design concept that and his projects have a presence in almost all cities of India and many countries of the world. His projects include cricket stadiums, railway stations, educational institutes, hotels, hostel blocks and airport terminals. Some of the major projects undertaken by Hafeez Contractor are- Sky Garden, Greater Noida (West); D.Y. Patil Stadium, Sea woods Estate, Turbhe Railway Station and low-income housing schemes at Navi Mumbai; DLF Aralias, Gurgaon; Mumbai Airport redesign; Infosys at Bangalore, Mangalore, Mysore, Trivandrum and Pune; Aditya Birla Corporate Headquarters and Rajneesh Osho Ashram at Pune; ONGC green buildings at multiple locations.



13. Ar. BIMAL HASMUKH PATEL (b. 1961)

Padma Shri -2019

One of the most sought-after architects of present times, Bimal Patel was born on 31 August 1961, in Ahmedabad. He graduated from the School of

Architecture, Centre for Environmental Planning and Technology, CEPT in 1984. Whilst a student, he undertook an apprenticeship with Frei Otto in 1981 at the *Institute for Lightweight Structures, Stuttgart, Germany*. After a year of working in Ahmedabad, he moved to Berkeley, USA to study at the College of Environmental Design, CED, from where he obtained his M.Arch. and M.C.P. degrees in 1988 and a Ph.D. from the Department of City and Regional Planning in 1995.

Bimal Patel has over 40 years of professional experience in architecture and urban planning. He heads the architectural firm in Ahmedabad titled *HCP Design Planning and Management Private Limited*. He is also associated with academics and is the President of CEPT University in Ahmedabad.

He has been conferred with numerous Awards including the *Aga Khan Award for Architecture (1992)*, *World Architecture Award (1997)*, *the UN Centre for Human Settlements Award of Excellence (1998)*, *the Architecture Review High Commendation Award (2001)*, *Prime Minister's National Award for Excellence in Urban Planning and Design (2003)* and *the HUDCO Design Award (2013)*.

The important projects undertaken by Patel and his company include the Aga Khan Academy in Hyderabad, Amul Dairy in Mumbai, Container Terminal in Chennai, and the architectural design of IIT Jodhpur, Bhuj Development Plan and Town Planning Schemes (post-earthquake), C.G. Road Redevelopment, Entrepreneurship Development Institute, Gujarat High Court, IIM Ahmedabad New Campus, Sabarmati Riverfront Development etc. Most recently, he is credited with the design of the New Parliament building in New Delhi.

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God is in the Details

Perspectives on Indian Architecture through the Photographers' Lens

By Ar. Lakshmi Priya Vaidya and Dr. Rama R Subrahmanian

Introduction

Architecture has always served as a powerful narrative of civilisation, culture, and religion. In India, this narrative is built around its rich spiritual and cultural fabric, diverse heritage, vast material resources, innovative spirit, and most notably, its enduring craftsmanship. As we explore the vast timeline of Indian architecture, the phrase "God is in the details" takes on a profound meaning. This article seeks to trace this connection between sacred intent and architectural expression over the centuries.

When we step into the courtyards of an ancient temple or gaze at the frescoed ceilings of an old palace, we encounter stories inscribed in their materials that have been perfected by countless dedicated hands. These details are like snapshots in the canvas of time, offering deep insights into the bygone eras. For the keen and thoughtful observer, these details become windows that reveal the extraordinary depth and breadth of beauty in India's architecture.

Seeking the Divine through traditional Indian architecture

Ancient Indian temples stand tall in embodying India's timeless spiritual and cultural heritage. These sacred structures were consecrated not only as grand physical monuments, but as spiritual mediums through which the divine could be experienced. Conceived as *mandalas* - cosmic diagrams designed to reflect the universe - they represented both the celestial and the earthly realms. The principles of

Vastu Shastras, Agama Vidhis, and Shilpa Shastras guided every aspect of their design, from the layout to the intricate ornamentation. Every proportion, orientation, and alignment was calculated with precision, ensuring that the temple harmonised with natural forces and the cosmic order. Thus, the temple became the earthly manifestation of the divine and was called *Devalaya* - the abode of God.



Figure 1: **Through the window of the eye** - A unique perspective of Jayalakshmi Vilas Palace, Mysore, captured, reflected in the observer's eye. Source: Anusha Nag, PG Student at DSCA (anushanag369@gmail.com)

At the heart of temple architecture is the *garbhagriha*, the sanctum sanctorum, where the Deity resides. It symbolises the center from which the energy of the Divine radiates outwards. In South Indian temples, towering *gopurams* (entrance gateways) rise majestically, serving as monumental beacons guiding worshippers toward the divine. These *gopurams* symbolise the connection between earth and sky, with golden *kalashas* - sacred water pots - topping them, further emphasising their spiritual significance. Their colossal heights invoked awe, drawing the worshiper's gaze upward connecting the earthly realm to the heavens (Figure 2).



Figure 2: **The Gopuram of Trinesvaraswamy Temple**, illuminated for Dussehra, shines brilliantly with intricate details, standing out against the night sky.

Source: Varsha V, UG Student at DSCA (varsha06dsca@gmail.com)

The *sthapatis* (temple architects) and *shilpis* (sculptors) approached their work as an act of devotion, adhering to traditional guidelines passed down through generations. Each carving, whether a floral motif or a Deity, carried deep spiritual significance. In this way, every chisel stroke verily became a prayer in stone.

Visual Narratives of the Rajasthani Palaces

As centuries passed, architectural detailing in India evolved, but its essence remained constant. In the palaces of Rajasthan, intricate facades became visual

stories, where each *jaali* (latticework), *jharokha* (overhanging window) and *chhatri* (canopied pavilion) acted as a carefully placed verse in an overarching composition. These elements invited light and shadow to dance on their surfaces offering great visual delight to the onlooker. The beautiful *jaali* screens of Amber Fort (Figure 3), along with other architectural features, stand as testaments to the artisans' dedication and skill.



Figure 3: **Jaali screen at Amber Fort** - Gazing out from the cool shade of the interior to brilliant daylight of the exterior, through the delicate jaali screen filled with its multiplying patterns.

Source: Ankitha M R, UG Student at DSCA (mattiankitha@gmail.com)

The architectural details of these palaces also reflect the interplay of life and architecture. These buildings resonate with the lives that once inhabited them, echoing the soft footfalls of queens and courtiers, the rustle of silk, and the whispered murmur of sacred prayers. The *jaalis* and *jharokhas* not only enhanced the visual appeal, but also offered privacy for royal women, allowing them to observe street life and festivals from within their palaces. Simultaneously, the small apertures in the *jaalis* were ingeniously

crafted to enhance air flow, providing a passive cooling effect that offered relief from the hot climate. The *Hawa Mahal*, or “Palace of Winds” (Figure 4), epitomizes this integration of function, beauty, and attention to detail in Rajasthani architecture.



Figure 4: **Hawa Mahal**, shaped like Lord Krishna’s jewelled ‘mukut’ crown, is a symphony of pink and red sandstone, jaalis, and jharokhas, where each element adds to the beauty of the whole.

Source: Poorna S Prasad, UG Student at DSCA (poorna.10prasad@gmail.com)

Mughals and their Quest for Paradise

As the winds of change swept across the subcontinent, new influences blended with traditional forms, creating a hybrid language of architecture. The Mughal emperors, renowned for their love of symmetry and precision, brought with them a different kind of devotion. Their architecture mirrored the heavens, where every arch symbolized a doorway to eternity and every *chahar-bagh* garden, a glimpse of paradise. With a focus on symmetry, axial planning, and proportion, they introduced *ivan* arches, *muqarnas* (ornamental vaulting) and the *pishtaq* (central arched portal), blending Persian and Islamic influences with indigenous elements. Yet, even in their pursuit of grandeur, the Mughals did

not forsake the details - the delicate inlay work and intricate lattice screens exemplified their belief that true beauty lies in the refinement of the small.

The Taj Mahal (Figure 5), often photographed from afar for its iconic silhouette, reveals a deeper layer of beauty up close. A stunning array of *pietra dura* inlays cover the walls, floors, and even the tomb chamber itself. This art form, introduced by Mughal craftsmen, involves embedding intricately cut pieces of semi-precious stones like lapis lazuli, jade, and turquoise into white marble surfaces, transforming the stone into vivid floral and geometric motifs. Each stone was hand-carved and fitted precisely, a painstaking and time-intensive process that required extreme skill and dedication. The result is akin to a white canvas studded with the colors of life. Arabic calligraphy, carved along the arched entrances, complements these inlays, scaling in size to ensure readability from both the ground and far away. This thoughtful detail attests to the craftsmanship of artisans from a bygone era.

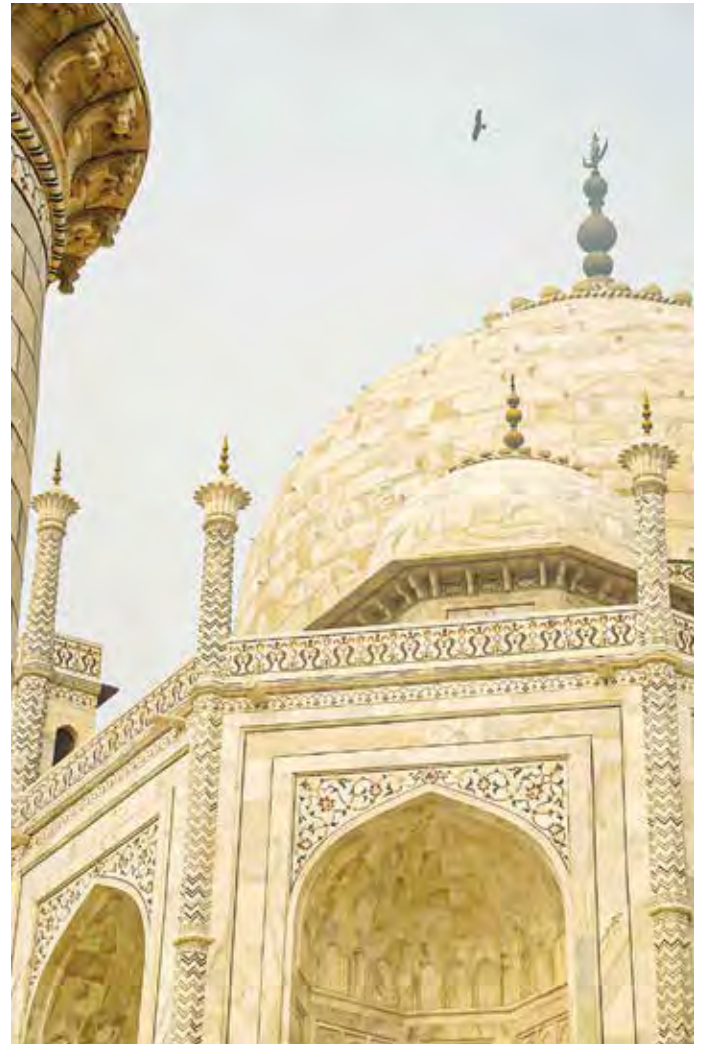


Figure 5: **Taj Mahal’s Pietra Dura inlays** showcase meticulous craftsmanship through the detailed mosaic of precious stones.

Source: Karthik KK, UG Student at DSCA (karthik29122@gmail.com)

Colonial Period and the Indo-Saracenic Style

As India transitioned into the colonial era, its architecture became a reflection of a nation in flux, marked by the mingling of foreign influences with traditional forms and detailing. This period witnessed the introduction of new materials, building techniques, building typologies and design philosophies, fundamentally reshaping India's architectural and urban landscape. Colonial structures often adhered to Western ideals of symmetry and proportion but were softened by Indian craftsmanship, incorporating local elements and motifs.

Indian colonial architecture reached its apex in the Indo-Saracenic style, which combined European architectural forms with indigenous Indian elements such as onion domes, scalloped arches, and vaulted roofs. The style symbolised the meeting of East and West and was emblematic of the colonial era, blending British design and Indian craftsmanship. Despite the dominance of foreign influence, this style underpinned the adaptability and resilience of Indian architecture and its craftsmen. The Taj Mahal Palace Hotel in Mumbai (Figure 6), commissioned by Jamsetji Tata in 1903 during the pre-independence era, is a historic icon that exemplifies this fusion of architectural styles.

British colonial architecture also underwent adaptations to suit the Indian context and climate. Colonial buildings increasingly featured wide verandas, high ceilings, and thick walls to combat heat and humidity. Elements such as large windows and strategically placed courtyards facilitated airflow, making spaces more livable. The architecture also blended in *chajjas* (sunshades) and richly carved corbel brackets in the detailing of these fenestrations. They also incorporated the use of local materials like red sandstone and brick which not only enhanced the aesthetic appeal but also ensured better thermal performance, reflecting an evolving understanding of how to harmonize foreign architectural practices with the realities of the Indian environment.

Contemporary Indian Architecture: Reimagining Tradition

In the contemporary era, Indian architecture continues its engagement with detail but reimagines it through simpler, more functional forms. The grandeur of historical ornamentation has given way to subtleties of space, light, and material, reflecting the ethos of modern Indian architecture. This transition can be seen in the architecture of the India Habitat Centre in Delhi (Figure 7), designed under the renowned architects - Joseph Allen Stein, B.V. Doshi, and Dr. Jai Rattan Bhalla.



Figure 6: **Window at the Taj Mahal Palace Hotel, Mumbai**, blending colonial architecture with Indian design and intricate detailing.
Source: Sanket Satish Shet, UG Student at DSCA (sanketshet3@gmail.com)



Figure 7: **India Habitat Centre** - Where warm light meets cool concrete, geometry shapes the building's quiet elegance.
Source: Varsha V, UG Student at DSCA (varsha06dsc@gmail.com)



Figure 8: Reflected tree branches spread across the glazing, while hand-painted extensions continue onto the wall beside it, thoughtfully integrating the facade and connecting the building with its surroundings in Basavanagudi, Bangalore.

Source: *Diya Y Bijoor, UG Student at DSCA (diyaabijoor17@gmail.com)*

In today's urban landscape, clean lines and open courtyards echo the spatial harmony of ancient structures, while sustainable materials and thoughtful orientation reflect a balance between modern needs and environmental considerations. The play of light and shadow, central to traditional architecture, remains integral, offering moments of contemplation and discovery in today's spaces. The careful placement of elements, from textured surfaces to the flow of air and light, embodies the timeless Indian ethos that divinity resides not only in what is built but in the subtle details that invite quiet discovery and connection.

Conclusion

As we step into the future, we need to pause and reflect on the architectural legacy we have inherited. In an age where monumental structures often overshadow the meaningful, we must remember that true beauty lies not in scale, but in the soul of a building. It resides in the delicate interplay of light and shadow, the dialogue between nature and the built environment, and the smallest of details that carry centuries of craftsmanship and cultural meaning.

In crafting the spaces of tomorrow, architects must continue to be both participants and witnesses, custodians of the visible and the unseen. Then, every detail, no matter how small, becomes a celebration of daily life, history, and divine presence. Indian architecture reminds us that divinity is not distant or abstract, but something tangible—something that can be seen, touched, and felt. Each brick, each beam and each detail becomes a prayer, a small yet profound offering to the divine.

Images Courtesy : Photos taken by PG and UG students of DSCA



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Commemorating Natural Disasters

Kedarnath Flood Memorial Museum Complex and Disaster Awareness Center, Uttarakhand

By Ar. Madhura Vaze and Ar. Atul Bhagwat

1. Introduction

Creating a disaster memorial is a complex task with a triple motive, including responding appropriately to perceived community needs, contributing to recovery and positively communicating their involvement in the memorial process and the disaster itself. It needs active community involvement where the role of government is crucial and aims to send specific, complex and subtle messages to the communities they govern (Nicholls, 2006). Reportedly, a thousand people lost their lives, more than four thousand were missing and thousands were stranded for hours waiting for rescue. Kedarnath, a historic town of religious importance, was razed to rubble in a very short time (Figure 1).



Figure 1: Kedarnath Temple

Source: <https://riskavoider.com/lessons-2013-uttarakhand-disaster>.

The tragedy happened due to a massive landslide in the northeast region of the Kedar Valley, coupled with hefty rainfall in the northwest region that coincided, forming a small lake. Debris accumulated interrupted the water flow, resulting in a large amount of water accumulation. The artificial boundary made of debris was broken due to increased pressure resulting in water gushing out, taking rocks along with them. The cause of the disaster was attributed to the large-scale deforestation that aggravated floods. In the past few years, infrastructural development projects like hydel projects, roads and transmission lines have been commissioned in Chamoli, Rudra Prayag, Uttarkashi and Pithoragarh, damaging the forest ecosystems. This phenomenon has resulted in their increased susceptibility to floods.

The region has undergone significant land use changes as about 44,868 ha of forest land was put to non-forest use since 1980. Increased tourism, particularly religious tourism, puts enormous pressure on existing infrastructure. Villages adjoining tourist places like Joshi Math, Nandadevi and Valley of Flowers witnessed the mushroom growth of hospitality buildings in a haphazard manner. Such development was observed abutting the river banks instead of the restrictions for constructing habitable structures within 200 meters of the riverbanks (Kumar, 2013). Disaster often results in psychosocial impact due to the loss of lives of family members, psychosocial impact, loss of property and loss of livelihood. It is evident that the impact of a disaster is more pronounced for the elderly population and they

need more medical and psychiatric care (Chandran, et al., 2015).

2. Memorial Concept

A memorial or museum dedicated to disaster victims can prove instrumental in paying respect, honouring and remembering those who have lost their lives and survived a disaster (Yang, 2010). Memorisation is an intrinsic process of place building, a particular space to which people attach themselves, irrespective of their size, type and intent. Creating a memorial requires the designer's sensitivity to place attachment and identity. The term "monument" is derived from Latin and refers to "things to remind," a phenomenon that is transmitted to future generations (Szpunar & Szpunar, 2016). They are physical manifestations of memories anchoring the variable and transient memory structure. They are figurative, self-acclaimed expressions of a memory featured with solidarity, conveying a morally engrained message portraying a past event (Davies, 2012). Memorisation is a process of remembrance to commemorate historical losses rather than celebrating historical events. It can be materialised by building monuments and museums or preserving historical sites (Crownshaw, 2014).

2.1. Memorialising

Memorials may be short-term, including roadside memorials, spontaneous shrines and graffiti to preserve reminders of the deceased, physically helping loved ones cope with the losses psychologically. Such memorials often motivate people to pray, light candles binding the community and unacquainted participants as an entity of mourners. Memorials play a crucial role in unifying victims or survivors, resulting in enhanced solidarity among them, leading to an everlasting post-disaster collective memory. Monuments are erected for the long-term, perpetual remembrance of a disaster (Dimković, 2016). They are often designed with architectural features to personalise a sense of loss, like statues, inscribed names of the deceased on offer spaces for ceremonies, or keeping mementos. Their tangible architectural form and associated intangible activities play a significant role in solidifying individual and collective memories, making grief meaningful (Zavar & Schumann, 2019). Visitors to sites other than a disaster site tend to have operational-based information about facilities and merchandise, whereas people visiting darker sites need quasi-academic and geo-political information to understand the magnitude of the event (Robinson, 2015).

Indian cities remarkably inhibit statues, museums, monuments, roadside shrines, public art installations and other commemorative sites that are planned

or spontaneous. Such commemoration sites result from the persistent demands for representation and respect of people, events, or places. It is stated that a place designed with artifacts and other evidence as a memorial can uncover different eras of human settlement and environmental changes. A place designed as a memorial gives voice to specific events, persons and visions of history and they possess a normative power representing the identity (Schein, 2003). Creating tangible and plausible associations with the past means "going back in time" and channeling public investment to support certain cultural, historical and environmental events (Alderman & Inwood, 2013). Memories originate from shared communications that transmit and create the meaning of the past through narrative, symbols and signs. Disaster memorials portray historical experiences based on the psychoanalytical understanding of victims' response mechanisms against trauma, particularly concerning loss and mourning (Kalinowska, 2010).

This research adopts collective memory theory, which refers to a complex social process of constructing and reproducing a society or social group's past (Rahman, et al., 2023). It represents social knowledge and cultural practices concerning the past that govern the emergence, changes, transformations and extinction of social structure and identity. It explores the socio-cultural connection between community, people and memorials to highlight various aspects of disaster memory. It explores how narratives and identities are constructed and shared around a disaster. Memories are believed to provide a well-designed space for concerned people to process their grief collectively, commemorate the devastation they experienced and reassure their resilience.

3. Case studies

Case studies helped in conceptualise the design performed under three categories as explained in the following sections.

3.1 War memorial/ man-made disaster memorial

A war/man-made disaster memorial is a building, monument, statue or other edifice to celebrate a war or victory, to commemorate those who died or were injured in wars/ man-made disasters. The cases studies included are:

- Vietnam Veterans Memorial, Washington
- Memorial Park, New York
- Memorial to the Murdered Jews of Europe, Berlin
- Hiroshima Peace Memorial Park, Japan
- Memorial to Victims of Violence, Mexico

3.2 Memorial of great personalities

A memorial of great personalities is a building, monument, statue or other edifice to celebrate great leader’s heroic life, philosophy, power and popularity. These included:

- The Washington Monument, Washington
- Shakti Sthal, New Delhi
- Diana, Princess of Wales Memorial Fountain, London

3.3 Natural disaster memorial

It is a building, monument, statue or other edifice to pay homage to those who have been affected in natural disaster such as:

- Smriti Van Earthquake Memorial, India
- Wenchuan Earthquake Memorial Museum, China
- Ban Nam Khem Tsunami Memorial Center, Thailand
- Banda Aceh Tsunami Museum, Indonesia

4. Questionnaire survey analysis

A questionnaire survey was carried out to understand people’s aspirations and perception regarding the project. The sample size was 50 including 15 local people and 35 tourists. The respondents’ perceived reasons resulted in this tragedy is shown in the Table 1.

The respondents’ aspirations regarding the presence of various architectural and planning elements were found different for tourists and local residents as shown in Figure 2. Local people's highest preference was on trees followed by a good museum. However, tourists were rated a stone finished building more

important in addition to the presence of water feature and lawn.

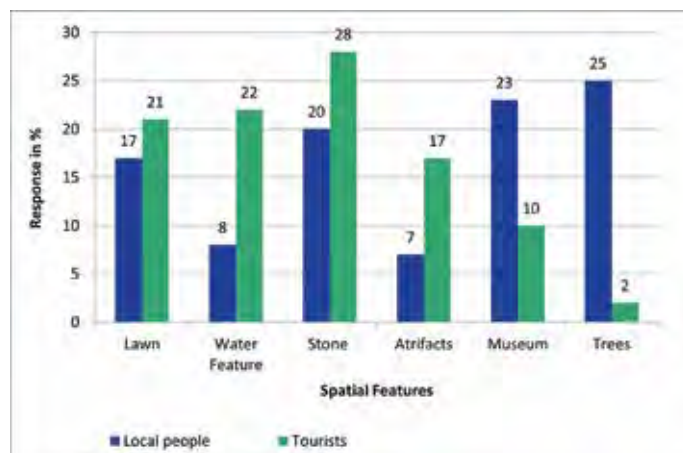


Figure 2: Presence of architectural planning features
Source: Author

Local people and tourist’s perception about the functional aspects on a disaster memorial was largely in favor of disaster prevention followed by tourism and then as a space for memorial. However, locals were also concerned about ecology to a certain extent (Figure 3).

5. Design Programme

A detailed review of literature, the internet, books, live case studies and topic-related data led to the development and formulation of the detailed architectural program for the proposed Kedarnath flood memorial museum complex and disaster awareness center. The architectural program broadly consists of

Table 1: Perceived Reasons
Source: Author

Respondents’ perceptions	Frequency	Percentage	Respondents’ perceptions
Reasons	Heavy Rains	3	20
	Climate Change	5	33
	Shifting of Dhari Devi Temple	4	27
	Dam Construction	3	20
Perceived Implications	Ecological Damages	8	54
	Migration	3	20
	Mental health disturbances	2	13
Problems observed	Change in river flow direction	4	26
	Landslides	4	26
	Debris accumulation	3	20
	Visual disturbances	4	27

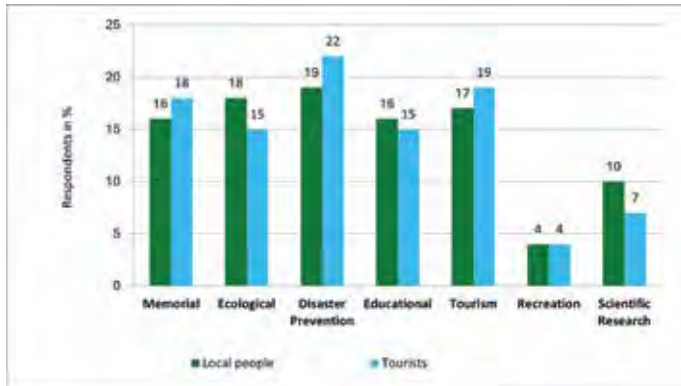


Figure 3: Functional aspects

Source: Author

Memorial: The memorial block is the main area divided into two zones. The first consists of public facilities, including a memorial square that is accessible to the general public as well as local residents. The other area is an informal zone including a memorial path, seating areas, meditation hall, reflecting pool, message stone and display walls designed with a combination of landscape and architectural design.

Museum: It consists of galleries of different capacities offering space for interactive and collaborative learning-emotional experiences through holographic displays. The museum comprises two public areas and one service block. The first public block includes pre-function areas such as reception, ticket counter, waiting area, locker room, souvenir shop and library. The second public block comprises galleries and storage spaces, staff rooms and AC/Radiator rooms to support the museum's functioning.

Disaster Awareness Center: This center will act as a training center for locals and tourists and a commercial hub. It comprises indoor spaces such as research labs, offices, a seminar room, a classroom, a computer lab, a research lab and an auditorium with support facilities. The outdoor spaces include a semi-covered activity hall and a training pavilion.

Disaster Management Center: This center handles prevention, mitigation, response and recovery as part of the disaster management cycle at the local level. It includes a well-designed space for organising local, national and international conferences. Other spaces include the multi-hazard warning system division, preparedness planning division, training, education, public awareness division and emergency operational division.

Emergency Block: It aims to serve as a 24/7 emergency disaster management cell, relief space for a capacity of 100 people, spaces for operators to handle relief work, storage space for emergency kits and emergency open and safe space for airlifting.

An amphitheater and training pavilion are proposed to host the light and sound show. A public plaza is an important design feature that will lead people down and connect them visually to the river, mountains and valley through the memorial from the upper-level road level and sides of the 6m wide road. Besides, a 3m wide boardwalk along the Mandakini riverbed will help people connect visually and emotionally to the river and disaster ruins.

6. Site Analysis

The site selected is Son Prayag, a place of religious significance located en route to Kedarnath Dham. It is situated at an elevation of 1829 m above sea level and offers a scintillating view of snow-covered mountains. The latitude is 30 degrees 37 inches north, the longitude is 79 degrees east, the altitude is 1635 to 1740 m.

Site analysis

The site is located 21 km downwards from Kedarnath Temple and 5 km from Gauri Kund. It is surrounded by NH-109 on the south side. The site is divided by a 6.0 m wide secondary road, which is used as the exit point of the Son Prayag bus stand in peak season in May-June.

Site features:

- Area of the proposed site: 35637 sqm (8.79 acres)
- The area within flood level: 2900 sqm
- Area under vegetation: 9000 sqm
- Buildable area: - 23737 sqm (with FSI 1.0)

Topography: The site slopes downwards from south to north, with an average steep gradient of 1:5 at the NH side to 1:10 up to a 6.0 m wide road, which again converts to a gentle gradient ranging from 1:40 to 1:50.

Climate: Son Prayag experiences a cold and cloudy climate. The site is in the temperate zone. It occasionally receives 3 to 4 feet of snowfall in winter from December to February. The Maximum temperature ranges from 24 to 26 degrees Celsius, whereas the minimum temperature ranges from -3 to 0 degrees Celsius. The average rainfall is 420 mm from June to September.

To get more details, the site was studied under the following heads:

- Road network analysis
- Slope analysis
- Drainage pattern analysis
- Existing trees analysis
- Visual analysis
- Sound analysis

The outcome of the site analysis is presented in Figure 4. The design was conceptualised using various design strategies as shown in Figure 5. The main feature of the museum is a linear planning where it exhibits control and an unforgettable continuous movement and journey of the flash flood (Figure 6). Considering the sensitive issues, the design retains natural settings. The spaces along the road are used as public plazas, taking advantage of the secondary road; the design allows people close to disaster ruins to relieve their emotions and awareness. A stream is channeled towards the site's lowest point, which serves as a natural reservoir to collect and harvest surface water and rainwater using the secondary road. The design also allows people to participate in training and awareness programs to save lives. The use of a contoured site is presented in Figure 7.



Figure 4: Site analysis
Source: Author

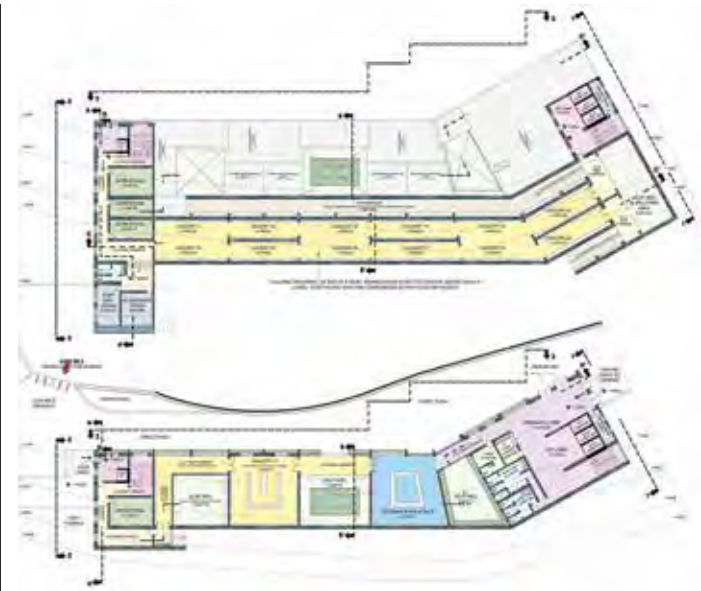


Figure 6: Museum block
Source: Author



Figure 7: Section through sloping site
Source: Author



Figure 5: Design strategies
Source: Author

7. The material palette

Physical attributes of the site enhance the sensitive environmental settings in terms of harsh weather, geology, landscape and natural storm water. It is required to select building materials that suit the natural environment. Schist stone is used for walling; slate stone is used for roofing. Stone paver blocks, Reveira grass pavers, mud and wooden flooring and gabion walls with planters are some of the materials used. The subtle earthy color scheme creates a soothing and serene environment. The design respects the natural environment, hence, a humble scale and proportion, grounded in character, is followed in design (Figure 8).

8. Landscape design features

Strategically selected plant material includes ingenious trees of ecological importance, such as Baji Oak. The evergreen flowering tree "Buransh" is selected because it holds medicinal, aesthetical and commercial value. Its flowers are used to prepare edible squash widely consumed by locals and sold in



Figure 8: Design merged in landscape
Source: Author

local markets. Medium-sized evergreen plant Choru is planted as it is one of the critically endangered Himalayan plants used to prepare traditional medicines. The softscape and hardscape features include Schist stone gabions and retaining walls that hold the soil, increasing soil stability.

Bioswale use plants and soil to infiltrate and treat stormwater. This system is said to dramatically reduce pollutants and contaminants to increase water quality. Riviera grass paver blocks, also known as grow-through pavers, are made of recycled plastic with open cells allowing grass to grow through them. They are porous and eco-friendly and they help to stop erosion and recharge stormwater, reducing stormwater runoff, which is a required aspect in hilly regions. In paved areas, tree pits are used to provide greenery with less maintenance. The details are presented in Figure 9.



Figure 9: Landscape design
Source: Author

8.1 Rescue and relief strategies

Various design strategies were adopted, such as:

- In the case of the relief operation, the auditorium seats as foldable seats will be turned down to the ground and the entire space will be used as a shelter for homeless people.
- Emergency rescue path will be used as a gathering path where helicopters will airlift stranded people.

- Post-disaster, the space under solar panels will be converted into relief spaces for temporary relief tents to be installed.
- In a post-disaster relief operation, the relief tents kept in storage space will be used as shelters for homeless people and victims. One relief tent can accommodate up to 5 people and is lightweight enough to be easily transported, folded and set up quickly.

Figure 10 shows some of these strategies.

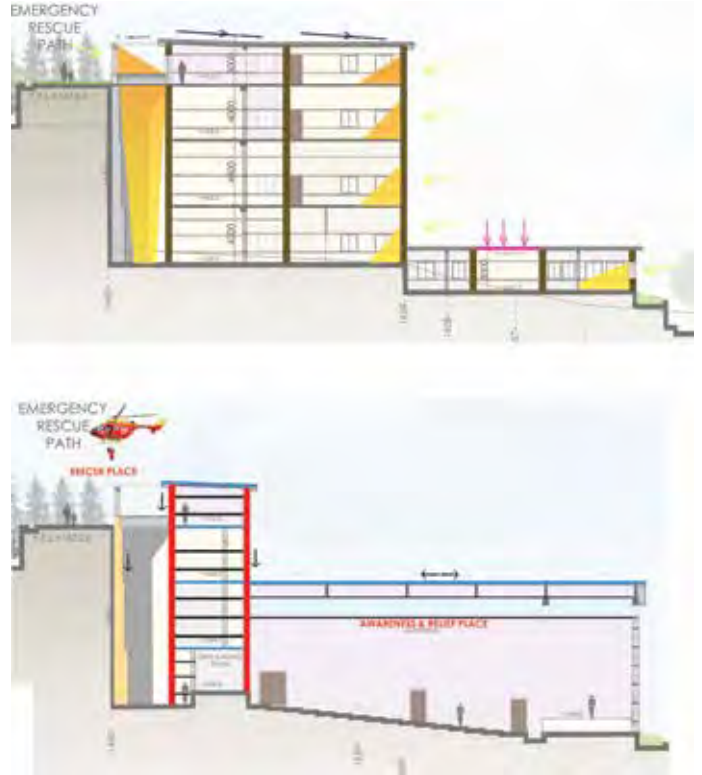


Figure 10: Rescue and relief strategies
Source: Author

9. Conclusion

Architecture is crucial in remembering the past. It portrays historical narratives and personal experiences, constructs places and inscribes memories. The process of remembering is often guided by visual artifacts or landmarks that act as a sensory stimulus. The memory of the disaster deteriorates over time; strategies must be established to sustain people's engagement across generational transformations. The proposed memorial has been designed to exhibit the various facets of the Kedarnath disaster, educate visitors and the community about its impact, enhance resilience and accept and ease the adversities left behind. This project emphasises the role of physical memorials and associated intangible memories in shaping the community's self-consciousness and identity. It enriches the architect's understanding of the

interrelationship between memorials and disasters, decoding various driving forces that influence the design. It is argued that such memorials represent not just disaster as physical events but become dynamic entities influencing community identity, narratives and resilience in future events.

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Deciphering the Essence of Education

By Ar. Neha Sarwate

“While one is young is the time to investigate, to experiment with everything. The school should help its young people to discover their vocations and responsibilities, and not merely cram their minds with facts and technical knowledge; it should be the soil in which they can grow without fear, happily and integrally.”

— Jiddu Krishnamurti, *Education and the Significance of Life*

The role of education in one’s life has reduced from gaining knowledge for the betterment of society and environment, to acquiring pieces of paper in the name of “degrees” to be flouted for securing employment. While the undertakings related to the generation and dissemination of knowledge was deemed as a service to society, education has now been reduced to a mere business with focus on quantitative measures rather than the qualitative aspects. Institutions tend to clone industries, where a student equals raw material that needs to be processed into a fine, ‘market-friendly product’ at the end of their educational rat race, expected to conform to the prescribed standards. The products (read graduates) are subsequently immersed in fulfilling their duties and repetitive actions for years to come, accruing reserves in anticipation of a peaceful retirement. This system leaves little or no room for retrospection and introspection towards personal growth and societal reform.

Educational institutions serve as platforms for discourses, interactions and debates that nurture ideas and visions towards the betterment of society. The administration, faculty and students

together constitute an institution, with each having distinct, complementary accountabilities that govern the learning and unlearning processes. The integrity with which each entity fulfils their roles and responsibilities in achieving the overall goal of learning, contributes to the significance and ethos of the institution. Unfortunately, in the present conditions, these are steered by the nature of the institution – public, private or patronised. The need for quantification of performance, both for faculty and students, tends to undermine the multifaceted qualitative aspects, as the measurement criteria focus on the tangible outcomes. The mushrooming institutions, the rat race of student enrolment along with societal pressure towards formal degree-based education is inadvertently attenuating the purpose of education.

An empathetic and robust administration determines the essence of the institution; its role in society as a front-runner to create a fertile ground for thinkers, innovators and leaders. While the administration provides the corporal foundation for governance, management and fiscal activities, infrastructure facilities and an enabling environment to the dynamic teacher and student communities, these functions depend on the vision of the institution. The vision for any institution is grounded on the values and philosophy of the apex body or its flagbearer. These are reflected through the type of programs and courses offered, their management style, attitude towards faculty and students, opportunities for knowledge upgradation, dialogues and discourses and, most importantly, the recruitment of faculty and students as drivers of transformation and progress. The onus

is on the administration to empower the faculty to devise effective pedagogical initiatives and pursue research initiatives by encouraging collaborative, non-competitive teamwork amongst them. When the concerted efforts of the administration and faculty team provide an array of inter-disciplinary learning alternatives to the students, it creates multiple opportunities of growth and development for the ensuing generations.

The faculty team plays the pivotal role of facilitating knowledge creation and sharing amongst the students, peers and administration alike, in order to keep the system apprised of the contemporary state of knowledge. Each teacher, irrespective of their position, when committed to the larger intent of knowledge contribution, rises above perfunctory duties of information dissemination. One of the primary roles of the teacher is to inspire the students to become responsible, accountable and ethical professionals. In order to do so, it is imperative for the faculty themselves to be motivated towards continuously updating their knowledge base, participate in outreach activities, question current practices, engage in inter-department dialogues, and facilitate student discussions on key issues affecting the society. The practice of obtaining feedback from the student community regarding various aspects of the teacher, subject and methods can go a long way in enhancing the learning process. Students are pliable in nature with impressionable minds and bubbling with energy which needs to be channelised by the faculty who play the role of *mentors*, guiding the students to determine their life paths, towards a sustainable and humane future.

Though the current generation of students are agile, the decision to enroll in higher education or in a professional course to pursue a field of their choice comes with a certain degree of commitment and discipline. There could be multiple reasons to pursue higher education towards establishing a meaningful career path; be it to explore new concepts, learn skill-sets or enhance one's knowledge base. It becomes their responsibility to enthusiastically participate in the learning-unlearning process with sincerity, integrity and diligence; proactively taking charge of their education and profession and hence their lives. While the present system measures the competency and success of the students through performance criteria of attendance and grades, in the interest of societal progress, the discussions concerning education and learning should go beyond these banal discussions. Classroom instructional learning plays the vital role of a catalyst to stimulate the cognitive apparatus of the receiving students, that

needs to be built upon for the enrichment of the learning community.

The ongoing global, national, regional and local crises of multiple natures – environmental, socio-economic, humanitarian and political – are indicators of a need for change in thought processes of all entities involved in the education process. A paradigm shift in the higher education domain, with an emphasis on ethics, is incumbent to create thinking, compassionate and honorable citizens.



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Remembering India's Architectural Visionaries

By Ar. Ravi Gadre

On the occasion of World Architecture Day celebrated on Monday 7 October 2024, we pay tribute to some of the architectural giants of India through the characteristic caricatures by Ar. Ravi Gadre.



Ar. Christopher Benninger



Ar. A.P. Kanvinde



Ar. Anant Rajee



AR. B.V. DOSHI

RMG 15/2/95

Ar. B.V. Doshi



Ar. Charles Correa

All Images Courtesy: Author



Ar. Ravi Gadre (F07871) has completed his G.D. Arch from Abhinav Kala Mahavidyalaya of Architecture, Pune. He started a partnership practice in 1979 as *M/s. Gadre Limaye & Associates* and his own firm as *M/s. Ravi Gadre & Associates* in 1998. He has been a visiting professor at BKPS CoA, Pune and BVCoA, Pune. He is fond of photography, music, travelling and reading. He has been awarded several times for his architectural work, as well as for his sketching.
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Sona University Centre and Library Block

By Ar. Rahul Kadri

Fact File:

Location: Sona College of Technology Campus, Salem

Site area: 34 Acres (part of masterplan)

Built-up area: 1,12,575 square feet

Typology: Educational/Institutional

Principal Designers: Ar. Rahul Kadri and Ar. Nithin Hosabettu, IMK Architects

Design team: Ar. Nithin Hosabettu, Mr. Barindra Unde (PMC), Ar. Roshni Chand, Ar. Sneha Chonkar

Completion date: February 2023



Figure 1: The University Centre and Library Block is the newest addition to the Sona College of Technology campus
Source: Nivedita Gupta

The Sona College of Technology was established in 1993 in Salem, the “steel city” of Tamil Nadu. Today, it is a hub of educational excellence and dynamic learning in the industrial city. The institute has expanded rapidly, leading to the continuous evolution of the masterplan to accommodate the growing student body, which has grown eightfold to over 8,000 students. The growth of the institution represents that of the region and the aspirations of people for upward mobility and diverse educational opportunities. The University Centre & Library Block (refer figure 1) has been the most recent addition to the campus, designed as modern landmarks to symbolise the college’s commitment to progress, as represented in figure 2. The distinct stepped facade culminates in a clock tower which offers striking, panoramic views of the city, and stands as the new face of the Sona College of Technology (refer figure 3). This building is the tallest landmark



Figure 2: The growth of the institution mirrors Salem’s aspirations for upward mobility and diverse educational opportunities
Source: Niveditaa Gupta



Figure 3: The building’s distinct facade is the new face of the Sona College of Technology
Source: Niveditaa Gupta

in Salem, commanding attention in the cityscape and furthering the institute's identity as a landmark.

The University Centre & Library Block stands near the oldest building on the campus, the Main Engineering Block, and houses administrative offices, placement departments, corporate floors, conference rooms, a banquet hall, management residences, a 1000-seater auditorium, and a state-of-the-art tech-friendly library. The Library Block opens up to a vast public space that acts as a place for students to hang out and as a pivotal connection to all other buildings on campus. Rustic granite steps lead to the library, becoming an extension of the outdoor plaza, as seen in figure 4. The steps have been designed around the existing trees on the site, which highlight the entrance to the building.

A well-lit and ventilated atrium inside the library continues the stepped public plaza experience (refer figures 5 and 6). The skylight in the atrium lets natural light in and the louvres expel hot air improving ventilation and air circulation. Heat gain is also minimised with the use of deep colonnades and openable shutters. This creates a pleasant atmosphere for students to spend time with one



Figure 4: The rustic granite steps connect the building to the rest of the campus and act as an outdoor plaza

Source: Niveditaa Gupta



Figure 5: Visitors and students experience a well-lit and ventilated atrium inside the library

Source: Niveditaa Gupta



Figure 6: The library features an indoor plaza that continues the stepped public space experience

Source: Niveditaa Gupta

another and study in the library during the day (refer figure 7). The building design and orientation follow the design language of the other buildings on the campus, blending each building's indoor experience.

In today's technology-driven world, the significance of a physical library may seem diminished. However, the new Library Block at the Sona College of Technology embraces libraries as the primary knowledge source on educational campuses and employs many features to encourage students to explore books and other resources. Its design transcends conventional learning environments to encourage teamwork and innovation. Multiple interactive spaces, a dedicated section for e-readers and e-books and virtual interface methods ensure that the new library is future-ready for its students



Figure 7: The library presents an inviting atmosphere for students to connect and read in natural light

Source: Niveditaa Gupta

and nurture a strong sense of community among them.

The 1000-seater auditorium was added to the design of the Library Block later in the design stage and is located beneath the entry steps. It also doubles up as an amphitheatre and a cafe where students can relax and spend time with one another (refer figures 8 and 9).

The building is defined by the prominent horizontal bands on its facade and varying massing, creating an illusion of multiple buildings. The use of materials and methods such as *MS jali*, masonry boxing, DGU sliding and DGU structural glazing exemplify the concept of “stepping blocks to the future,” which emphasises a forward-looking design philosophy and the advancement and evolution of architectural principles.

Sustainability and functionality form the core design principles for all the buildings on the Sona



Figure 8: The expansive public space in front of the building has become the ‘hangout spot’ for students

Source: Niveditaa Gupta

College of Technology campus, ensuring good lighting, ventilation, circulation and indoor-outdoor connections. Every building has its own distinct identity, remaining true to the times they were built



Figure 9: The auditorium, which doubles up as an amphitheatre and cafe, is a space for students to relax and interact with one another

Source: Niveditaa Gupta



Figure 10: The University Centre and Library Block is the tallest landmark in Salem
 Source: Nivedita Gupta

in. Yet, the buildings all belong together. The Sona University Centre & Library Block complements the main administration building, the Heritage Block, blending modern architectural elements to integrate seamlessly with the campus, as seen in figure 10. All the buildings embody the institution's modern educational ethos and value of community integration, balancing their aesthetic appeal with functional efficiency.



Ar. Rahul Kadri (F8706), partner and principal architect at IMK Architects, is a noted expert on ecological planning, biophilic design and sustainability. With a diverse portfolio that includes healthcare, institutional, commercial and landscape projects like SUHRC and Auric Hall, he regularly shares his insights on urban development, policy-making, housing and slum redevelopment.

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DESIGN PROJECT

Tribhuvana

Architect's Own Office

Khanderavpura Village, Gujarat, India

Ayush Prakash Hazare and Niyati Venugopal Shetty

INTRODUCTION

In "The Architecture of Happiness" (2006), Alain de Botton explores the profound relationship between our physical surroundings and our emotional well-being. He asserts that architecture significantly influences our emotions and happiness, suggesting that our architectural choices reflect our personal narratives and inner states. This harmony between our environment and inner selves is essential for our well-being. This philosophy aligns perfectly with the designer's ethos, which emphasises on creating architectural harmony with the environment, culture, and history. The aim is to design structures that integrate seamlessly with their surroundings, fostering contentment for both users and creators. This approach echoes the principles of "The Architecture of Happiness," translating its ideals into thoughtful, tangible designs.

ABOUT AR. HIMANSHU PATEL AND d6thD DESIGN STUDIO

Himanshu Patel, a passionate architect who graduated from M.S. University in 2006, has a notable career that began at the prestigious international firm Arif & Bintoak in the Emirates. His work gained further acclaim through his role as a Chief Minister's Fellow in 2009, where his research on prominent Gujarat tourism projects received significant recognition for its social development impact. Deeply influenced by his village upbringing, Patel's architectural practice is firmly rooted in vernacular traditions. For the past five years, his Ahmedabad-based design studio, d6thD, has been a beacon for promoting the use of locally sourced materials, traditional construction methods, and

designs that resonate with cultural and climatic contexts. Driven by innovative ideas rather than individual personalities, d6thD seeks to explore how architecture can foster happiness and comfort. The studio envisions itself as a collaborative haven where clients and partners can reflect on creating joyful and fulfilling living environments through thoughtful design.

Tribhuvana, located in the village of Khanderavpura near Ahmedabad, Gujarat, serves as the workspace for Himanshu Patel's d6thD design studio. Himanshu's commitment to vernacular architecture



Figure 1: Ground floor plan
Source: Ar. Himanshu Patel



Figure 2: Architect's Office - d6thD design studio
Source: Ar. Himashu Patel, *Inclined Studio*

is evident in this rural setting, which inspires creativity and reconnects us with nature and tradition. The studio stands as a testament to the idea that the simplicity and authenticity of village life can inspire modern architectural practices. Various aspects of the approach reflect a blend of heritage and innovation, showcasing a deep respect for cultural roots. This alignment between lifestyle and design principles indicate that these concepts are not just theoretical, but are lived experiences. This congruence enhances credibility, showing that you genuinely believe in the transformative power of the design ideas. (Figure 2)

SPATIAL ANALYSIS

Situated within a farm, the building complex coexists with the ongoing agricultural activities that thrive in the surrounding area. Located near an expansive lake, this unique environmental tapestry influences the building's orientation (Figure 3). The studio's entrance, adhering to Vastu principles, invites visitors on a captivating journey. A narrow corridor leads into the courtyard at the building's core, creating a narrative of spatial dynamics. This space, framed by two guardian trees, exudes balance and

seamlessly connects the indoors with the outdoors. It offers a verdant sanctuary, providing respite and engaging with the architectural cosmic language. The courtyard adapts during gatherings, becoming a dynamic canvas filled with pebbles, resonating with celebration and collective spirit.

On the east side of the courtyard's wall, a temple niche adds a celestial narrative to the architecture. A Ganpati placed in a '*jharokha*'-like niche window engages in a silent dialogue with tradition and nature. As the sun's earliest rays grace this element, it becomes a beacon of spiritual illumination, casting its radiance upon the heart of the dwelling.

The spatial progression is dramatic, immersing visitors in the building's expanse, although the views vary. Unlike typical designs that emphasise outward vistas, this adopts an introverted approach, focusing on an inner courtyard that becomes the centrepiece, offering an immersive experience within its intimate setting. The transition from the external environment to a very inclusive inside encourages a change in perspective, blurring the boundaries of the external environment. This shift moves from passive observation to active engagement, where



Figure 3: Nestled within a farm

Source: Ar. Himashu Patel, *Inclined Studio*

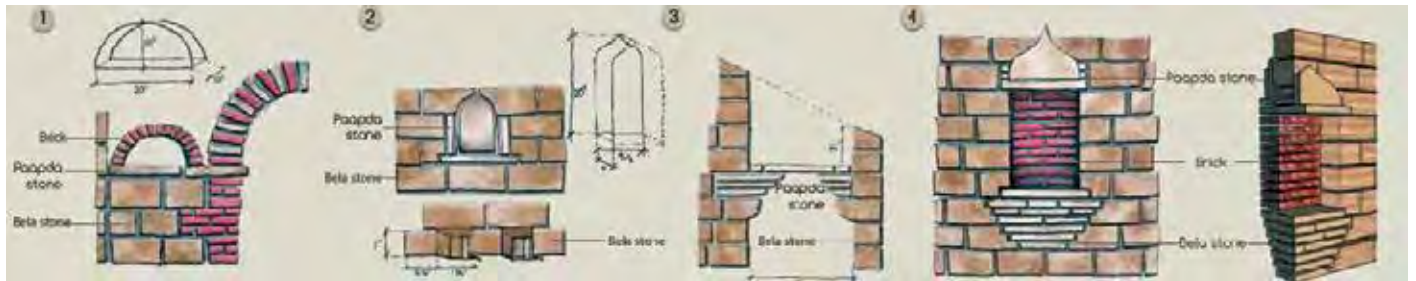


Figure 4: A harmony of sandstone and brick, shaping refined wall niches

Source: Ar. Himashu Patel, *Inclined Studio*

light, shade, and movement tell compelling stories. (Figure 5 and 6)

As the name Tribhuvana suggests, there are essentially three building blocks. The architectural configuration takes shape as a dynamic L-shaped plan formed by three interconnected structures, each serving a distinct purpose. With a climate-conscious design approach, the studio and residence blocks are aligned north-south to mitigate heat gain. The multipurpose hall is highly adaptable, transitioning seamlessly from presentations to communal discussions and events. Despite the diverse functions and varied wall configurations, a unified character emerges through a consistent material palette, featuring local stone, bricks, and terracotta tiles. Coloured glass in the windows adds vibrancy, striking a balance between aesthetics and cohesion.

Adjacent to this configuration stands a solitary building dedicated entirely to the studio space, creating a unique triad that captures the essence of spatial diversity and functional versatility. The studio space includes a workspace and an adjoining office, connected visually by a small '*khadki*'. The south-facing openings offer views of the lake, bringing in a soothing breeze in the late evenings. At the intersection of the studio block and the multipurpose hall, a seating area beneath trailing creepers fosters a sense of community during daily chai sessions.

The design emphasises climate responsiveness with carefully curated smaller openings that reflect sustainability and introverted planning. These openings offer a balance between flexibility and function, fostering a tactile connection with the environment. Recycling is incorporated, with repurposed '*jaalis*' and materials redefining the architectural essence. Traditional window designs



Figure 5: Office Interior with the central courtyard
Source: Ar. Himashu Patel, *Inclined Studio*

celebrate a harmonious balance between control and openness, allowing occupants to connect with the outside or cocoon within. The architect finds a thoughtful sense in these traditional elements. The narrative of these openings is further enriched through the incorporation of recycled triplet windows, which provide the ability to modulate light and air for comfort. (Figure 7)

The western façade of the multipurpose hall utilizes terracotta '*jaalis*' instead of regular windows to filter harsh sunlight and create a gentle connection between indoors and outdoors. This blend of traditional design, sustainability, and climate sensitivity enhances the overall experience.

Objects in the courtyard have been thoughtfully sourced over the years, from nearby villages, travels, and even from home. For instance, the steps are made from stone '*chakkis*' or grinders, once used in the domestic lives of villages. This selection honours heritage and ingenuity, preventing these items from being neglected or discarded. This curation serves a dual purpose: it is cost-effective and infuses a tactile essence into the surroundings. Each item holds a historical narrative, now brought to life, fostering connections and inviting stories. In the spaces, objects celebrate resourceful ingenuity. Triangular

'jaalis', storage niches, a repurposed copper wash basin, and subtle brick embellishments creatively utilize available resources. The architect believes that the emotional quality of the space transcends its physical boundaries, infusing even the walls. These walls become canvases that absorb and reflect the surroundings, serving as storytellers that echo experiences, memories, and connections, fostering a sense of familiarity and belonging that goes beyond the material realm.

Incorporating local crafts and techniques not only reduces costs but also fosters local appreciation for their way of life. Himanshu's sincere intention to dignify and empower craftsmen plays a vital role, infusing the building process with human spirit and heritage. Each artisan's hand reflects the close bond between creator and creation. This collaboration results in architecture that transcends physical form, shaped by the craftsman's identity, skill, and the profound impact of human involvement on the building's essence. (Figures 8 and 9)

CONCLUSION

Amidst these intricacies of spatial narration, we find the embodiment of a philosophy that transcends architecture as a mere physical construct; they become vessels of emotion, connection, and



Figure 6: Architect's Office
Source: Ar. Himashu Patel, Inclined Studio



Figure 8: Details on the facade
Source: Ar. Himashu Patel, Inclined Studio



Figure 7: Multipurpose hall for various activities
Source: Ar. Himashu Patel, Inclined Studio



Figure 9: Details of local stones and bricks
Source: Ar. Himashu Patel, Inclined Studio

wellbeing. This is architecture that breathes life with a power of design to shape not only spaces but the very essence of the human experience.

Acknowledgements

We extend our sincere appreciation to Ar. Himanshu Patel for graciously sharing his invaluable insights and experiences during the interview. His passion for vernacular architecture and dedication to creating feel-good spaces are truly inspiring. We would like to express our heartfelt gratitude to our esteemed professors, Ar. Arthur Cutinho and Ar. Aparna Panganti, for their unwavering guidance, mentorship, and support. Additionally, we extend our sincerest gratitude to our families and our parents for their steadfast support, understanding, and encouragement.



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The Story of Garli

A Heritage Hamlet in the Heart of Himachal

By Ar. Vivek Sehgal

In a pursuit of planning an architectural study tour to Hamirpur in July 2024 to conduct a site analysis for a proposed resort site there, I researched about the heritage value of the city and its surrounding villages. On the internet, I discovered Pragpur and Garli – small ornamental villages which lie in the shadows of the majestic snow-capped Dhauladhar range in Kangra district of Himachal Pradesh. Both came into the spotlight in December 1997 when they were certified by the state government as heritage villages, the first of its kind in India. As they were not too far from our hotel, I decided to include a visit to both Pragpur and Garli in our itinerary. Further deliberation with faculty from NIT Hamirpur resulted in a decision to shortlist only Garli for a visit as its heritage character is still unadulterated.

Little did I know at that time that along with my students, I will be experiencing the most hospitable, pious hamlet and truly a treasure trove of heritage architecture dating to the colonial era. Even the location of the village was carefully chosen to receive the blessings of the three Shakti temples located nearby – Chintpurni, Jwalamukhi and Brajeshwari. To me, Garli is not a village with a story but a story that is a village, and much of that story has unfolded within the walls of magnificent built heritage.

While Garli was majorly a residential zone, Pragpur, which is located close by, developed to be a major market place, the character of which was documented in our study. One of the buildings which was documented in detail is the Naurang Yatri Niwas, a striking brick edifice built in 1922 to serve as a *sarai* (inn) for travellers (refer figures 1 and 2). It is now restored and serves the purpose of accommodating travellers who are drawn to this place, including



Figure 1: Architectural elements - tudor arch, niches and jack arch roof
Source: Author



Figure 2: Brick edifice with semicircular arches and brick jalis
Source: Author

flocks of architects and architecture students. On the third day of our study tour, we reached Garli village and the news of architecture students from Punjab visiting Garli for a study spread like fire. Locals were eager to meet and greet us, offering us refreshing cup of Kangri tea. In one of the *havelis*, we were served a local delicacy called Kangri *dham*, a delectable combination of delicacies like *maa ki dal*, *mandara*, *khatta* and *meetha* cooked on the good old *chulha*. It wasn't long before a local resident kindly agreed to guide us, sharing insights that only someone with a deep connection to the village could provide.

An old lady from the *haveli* shared the legend of Garli with us (refer figures 3 and 4). We were told that a princess named Prag Devi rescued the village and villagers from plunderers in the 16th century. Merchant clans, mainly Soods, settled in the village in the 19th century and developed its public and social infrastructure to an extent that copper pipes procured from England were laid in the 1920's for water supply and the village was known as an education and medical hub till the first half of 20th century.



Figure 3: Interaction with an old lady at her house
Source: Ms. Amanpreet Kaur, a B.Arch. student at GNDEC School of Architecture, Ludhiana

The overall planning of the village was also documented to understand how institutional and residential buildings were weaved together. Major axial roads were planned with motorable width, whereas inner lanes that were designed primarily for pedestrians connected residential areas.

Walking through Garli's narrow lanes, we were surrounded by houses that stood as silent witnesses to time. These houses, many constructed using solid brick masonry (Nanakshahi bricks), showcased the resilience and beauty of traditional building methods. Thick walls protected these structures from the harsh weather, while the gabled roofs with slate shingles or corrugated metal sheets (see figure 5) – some featuring jack arch construction – added to



Figure 4: Vernacular construction details with wood, mud and slate shingles
Source: Author



Figure 5: Gable roof with corrugated metal sheets at Govt. Girls School in Garli
Source: Author

the durability and were designed to shed rainwater efficiently. The roofs were not just functional but integrated into the landscape, blending seamlessly with the surrounding hills.

The windows of these homes were another highlight. Large wooden casement windows opened outward, allowing the cool mountain breeze to filter in. Some homes had corridors lined with windows that let light stream in, and smaller tinted windows scattered throughout created an enchanting play of light and shadow (refer figure 6). Elegant brick *jalis* were part of many buildings to infiltrate light and to add beauty to it. Elegant jharokhas, too were part of many buildings to infiltrate light and to add beauty to it (refer figure 7).



Figure 6: Bright windows in series for light and ventilation
Source: Ms. Amanpreet Kaur, a B.Arch. student at GNDEC School of Architecture, Ludhiana



Figure 7: Jharokhas- testimony to privacy, climate control and aesthetics
Source: Author

We also stopped to admire the intricate wooden carvings on doorways and verandahs (refer figure 8), a testament to the craftsmanship passed down through generations. Many homes featured small, cosy fireplaces, which served as both a source of warmth during the cold winters and a focal point of family life.



Figure 8: Verandahs with wood and steel work
Source: Ms. Amanpreet Kaur, a B.Arch. student at GNDEC School of Architecture, Ludhiana

As we moved further into the village, our guide shared the history behind these structures— stories of families who had lived here for centuries, carefully preserving the character of their homes while making their own additions (refer figure 9). The students, fascinated by this living history, drew sketches, took notes and asked questions about how those buildings were designed to meet the challenges of the region's climate and terrain.

For me, Garli was more than just a village— it was a lesson on how architecture can preserve heritage while still functioning as a part of everyday life. Architecture style of Garli represents the influence of British, Mughal, Portuguese and Himachali styles merged with the local context (refer figure 10). In all buildings, we can see a mixture of Rajasthani style windows, Mughal ornamentation and British style chimneys. Most of the buildings are representing the influence of colonial architecture. I hope my students would see it not only as a place to learn about design and construction but also as a sanctuary, where the fast pace of modern life seemed to slow down and the essence of time stood still.



Figure 9: Grand haveli at Garli

Source: Ms. Amanpreet Kaur, a B.Arch. student at GNDEC School of Architecture, Ludhiana



Figure 10: Colonial, Portuguese, Mughal, Rajasthani and Kangri styles of architecture at Chateau Garli

Source: Ms. Amanpreet Kaur, a B.Arch. student at GNDEC School of Architecture, Ludhiana

The author acknowledges the significant contribution of Ms. Amanpreet Kaur (a B.Architecture 3rd year student of the GNDEC School of Architecture) in this article.



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Remembering Prof. Christopher Charles Benninger (1942-2024)



'It is unbelievable that Prof. Christopher Charles Benninger is no more' said many of his friends. Prof. Christopher Benninger was an American citizen but his heart was in India, his *karmabhoomi*. He was born on 23 November 1942 in Hamilton, Ohio. He studied architecture at the University of Florida. Under the advice of his teacher Harry Merrit he then moved to the Graduate School of Design, Harvard University where he met Prof. Jose Luis Sert, and he did his planning studies at MIT. He used to speak fondly about belonging to the *gharana* that included Le Corbusier, Sert, Doshi and himself!

He was a tenured professor at Harvard University when he met Prof. Balkrishna Doshi who invited him to come to Ahmedabad, to teach at the School of Architecture. He considered Prof. Doshi as his *Guru*. Together they brought fresh energy, a sense of freedom and inquiry at the campus. He was jovial and friendly with the students and colleagues. This liberal approach to education was refreshing as Indian universities were then marked by conservatism inculcated by the British academic tradition.

He was instrumental in developing a multi-disciplinary programme in planning at the Centre for Environmental Planning and Technology (CEPT), Ahmedabad. He was a Professor of Planning and co-ordinated the Planning Laboratories focusing on micro-level planning in urban and rural contexts and conducted district planning studies at SP, CEPT and guided students in their dissertations.

He married his student Aneeta Gokhale, a geographer, planner and environmentalist, and moved to Pune. He set up his consultancy practice in Pune with his studio in the historic core of the city. Together they set up the Centre for Development Studies and Architecture (CDSA) in Pune in 1976. It offered a post graduate programme in Development Planning. They carried out numerous research projects and undertook preparation of rural and urban development plans in India and Sri Lanka. Then he moved away to follow his inner voice and heart. He and his partner Ramprasad Akkiseti set up their home and a new practice CCBA at the India House and evolved it into a very distinguished firm of architects and planners with a creative team of young architects, planners and engineers.

Christopher was a great communicator. He travelled across India and the world to give talks at schools of architecture and planning. He enjoyed interacting with students and young professionals. He gave several memorable lectures over the decades at the *International Conference on Humane Habitat* (ICHH) at the Rizvi College of Architecture. He was a great supporter of the humane habitat movement. Encouraged by his father, Christopher was an avid reader and a great author. He has written three books, *Letters to a Young Architect* (2011), *Christopher Benninger. Architecture for Modern India* (2015) and *Notes to an Architect* (2024), which was published posthumously.

Finally, modern architects are crusaders, spokespersons and even revolutionaries in their fight against effatism and deceit. In India today we are bombarded with false architecture; 'cut' from bad buildings in the West and 'pasted' into Indian environments, ruthlessly and carelessly. Mostly this crime is committed under the false ideology of post-modernism and the cyberecture that followed; these are in fact creeds of greed and self-aggrandizement.

Christopher Benninger, 2011.

His great body of works include: Centre for Development Studies and Activities (CDSA), Pune; Mahindra United World College, Lonavala; Suzlon One Earth, Pune; the Supreme Court of Bhutan, New Academic Block, CEPT University, Ahmedabad, IIT, Hyderabad. He was awarded the *Great Masters Award* by JK Cement and received the highest honour of the *IIA Baburao Mhatre Gold Medal* at Lucknow in 2024. He was awarded Doctor of Philosophy by CEPT University in 2024.

He was very particular about his health and swam and exercised regularly. He was identified with cancer and was treated. He recovered but unfortunately it relapsed. He passed away on 2 October 2024 in Pune aged 81, after a prolonged struggle against cancer. He was cremated at Pashan Sutarwadi in Pune. He is survived by his wife Aneeta Gokhale, son Siddhartha, his school CDSA and his studio CCBA.

A memorial meeting was organized jointly by the CDSA and the Maharashtra Association of Schools of Architecture (MASA) on 19 October in Pune. Prof. Aneeta Gokhale Benninger, Director CDSA, recalled the pioneering educational endeavour of Christopher in setting up the School of Planning in Ahmedabad and CDSA in Pune and his tremendous contribution to the architectural profession. It was an emotional moment for me to reflect on my early meetings with Christopher at CEPT, Ahmedabad. He was one of my Gurus. He visited our home and college and we shared our life-long friendship.

Prof. Abhay Purohit, President, Council of Architecture in his message said “Christopher was a man ahead of his time, a visionary who reshaped how we think about the integration of architecture with the natural and social environment. His designs were not mere buildings or urban structures; they were embodiments of culture, community and innovation. Throughout his distinguished career, his work stood as a testament to his deep commitments to the values of humanism, social justice and environmental harmony. He possessed the unique ability to blend creativity with purpose, transforming spaces into living entities that fostered community, culture and sustainability.”

Prof. Jayashree Deshpande, Director, COA TRC, recalled the support extended by Christopher to educational programmes and students thesis competitions organized by COA TRC. She said, “His lectures fired the imaginations of students and young architects. He was a great inspiration to the students.”

Prof. Vinit Mirkar, General Secretary, MASA said “Prof. Christopher was a very sensitive architect. CDSA campus shows the purity of his sensitivity and one can feel his soul while visiting the campus. He had a keen eye for detail. He was always approachable as a human being, as well as an architect. He was a people’s architect.” Prof. Akhtar Chauhan, Past President MASA, Prof. Anand Achari, Hon. Treasurer; Prof. Mandar Parab, Jt. Sec, and Prof. Harish Shetty, Member, MASA, and a large number of friends, architects and educators attended the memorial meeting.

IIA Pune Centre, IIA Maharashtra Chapter and the CCBA organized a Memorial Meeting at Dr. Kalmadi Shamrao High School Auditorium, Pune on 22 October 2024.

We are passing through a critical phase in our nation’s march to evolve into a developed country. We need to understand the complexities in the social, economic and technical development of our country to be able to chart out a path of development to provide work and ensure affordable shelter for all, provide good quality education and health care to all, through sustainable human development. Prof. Christopher Benninger’s teachings, his writings and works will continue to inspire generations of architects and planners. He was truly a friend, philosopher and guide to us.

May God bless his noble soul with eternal peace in his heavenly abode.

May God give strength to his family, colleagues and friends to bear this big loss and move ahead in life.

Aameen.



Ar. Akhtar Chauhan (F-04298) is senior architect, planner and educator. He was the Hon. Editor, JIIA; Jt. Secretary and IIA National Council. He has been the Secretary, UIA Asia-Australia; Co-Convener of CAA/ IIA International Conference on *Housing and Urbanisation* and ARCASIA Conference ACA-3, New Delhi. He was the President, Maharashtra Association of Schools of Architecture and the Vice President, World Society of Ekistics. He is the Founder-President of the *International Association for Humane Habitat*. He is in practice with his wife Pradnya Chauhan and brother Anvar Chauhan. They have designed townships, educational institutions and housing in India and Iraq. He was awarded the *MASA Gold Medal* for lifetime contribution to architectural education.
Email: akhtarchauhan47@gmail.com

CONDOLENCES



Ar. Sharad Joglekar (A-05943)
(11 Nov. 1959 - 31 Oct. 2024)

Past Chairman of IIA Kalyan Dombivli Centre, Ar. Sharad Joglekar, left this world for his heavenly abode on 31 October 2024. He had completed the Govt. Diploma in Architecture (G.D.Arch.) from the Bandra School of Art (now, L.S. Raheja School of Architecture) in 1983 followed by the B.Arch. degree in 1984. He practised as an architect and valuer with offices in Ambarnath and Nashik. Ar. Joglekar had served in IIA in various capacities including Hon. Secretary and Chairman of IIA Kalyan Dombivli Centre for the term 2006 to 2008.

IIA KERALA CHAPTER

Southern Regional Conference (SRC) 2024

The Indian Institute of Architects (IIA) Kerala Chapter, in partnership with IIA Kannur Centre, is excited to host the Southern Regional Conference (SRC) 2024 at Vythiri Village Resort, Wayanad, on November 29-30, 2024. This anticipated event aims to unite architects across India and beyond to promote collaboration, innovation, and professional development within the architectural community.

SRC serves as a premier platform for professional growth, networking, and knowledge sharing in architecture. This year's theme, "Bridging Binaries," emphasises the intricate connections architecture creates among humanity, society, and advancing technology. Discussions will revolve around two main focuses—"Humanity and Society" and "Humanity and Innovation"—inviting architects to reflect on their societal impact and the potential for innovation through technology.

The "Humanity and Society" theme will delve into architecture's role in shaping everyday life, social norms, and lifestyle patterns. Panelists will examine how built environments influence social behaviours

and interactions, highlighting the importance of resilient design. Leading architects will showcase their commitment to creating spaces that inspire, connect, and uplift communities.

The second theme, "Humanity and Innovation," will explore how technologies such as 3D printing and immersive design tools are reshaping architectural practices. Experts will discuss how these innovations bridge the gap between imagination and reality, expanding the frontiers of dynamic and experimental architecture. Insights into these advanced tools will demonstrate how architecture responds to contemporary challenges and opportunities.

Beyond thought-provoking sessions, the conference will provide enriching experiences. Attendees can expect exhibitions showcasing the latest in building materials, along with guided nature trails and bird-watching sessions that celebrate Wayanad's natural beauty. A curated display of local arts and crafts will highlight regional creativity and craftsmanship, adding a cultural element to the event.

Interactive activities, including on-site games, will enhance formal sessions, offering engaging and informal networking opportunities. Vibrant cultural programs featuring local performances will celebrate

both architecture and regional heritage, merging tradition with innovation for a comprehensive experience.

The conference will feature distinguished speakers from national and international realms, including Alejandro Aravena, the 2016 Pritzker Prize winner. These sessions will address complex design challenges and provide valuable insights.

Attendees will also have opportunities to view exhibitions showcasing the latest architectural trends, encouraging collaboration and thoughtful design. Each day will conclude with a gala dinner and cultural programs, providing a relaxed atmosphere for architects to connect and network.

“We are thrilled to host the Southern Regional Conference 2024 in Wayanad’s beautiful surroundings. This year’s theme, ‘Bridging Binaries,’ reflects our commitment to meaningful dialogue between humanity, society, and innovation. Architects have a significant responsibility to create spaces that inspire and connect, making this conference a vital platform for sharing ideas and exploring our profession’s future,” said Ar. Vinod Cyriac, Chairperson, IIA Kerala Chapter.

Ar. Sajjo Joseph, Chairman of IIA Kannur, noted, “This conference exemplifies our dedication to advancing architectural practices in harmony with nature.” Wayanad, with its ecological richness, provides an ideal backdrop for this dialogue.

IIA MAHARASHTRA CHAPTER

MAHACON 25

IIA Thane Centre, Maharashtra Chapter will be hosting the 26th Maharashtra Chapter Convention, MahaCon 25 where architects from all over India will be participating in large numbers.

Date: Fri. 24 & Sat. 25 January, 2025

Venue: Dr. Kashinath Ghanekar Natyagruha, Thane (W.)

Theme: CONFLUENCE of Adaptive Reuse and Parametric Architecture

Confluence in architecture means meeting at one point and flowing freely together with thoughts and ideas for innovative design. IIA Thane Centre is creating a platform for convergence of ‘Adaptive Reuse’ and ‘Parametric Architecture’ as concepts within the realm of architecture, addressing different aspects of design and sustainability.

While these concepts might seem distinct, they can intersect in certain contexts. Parametric design techniques can be applied to adaptive reuse projects

to optimize the transformation of existing structures while preserving their historic and architectural integrity. Similarly, adaptive reuse principles can inform the sustainable aspects of parametric architecture by encouraging the reuse of materials and resources in innovative design solutions.

MAHACON 25 Speakers

IIA Thane Centre has confirmed a few guest speakers based on the theme: Ar. Brinda Somaya, Ar. Vinu Daniel, Ar. Khushbu Davda, Ar. Senthil Kumar Doss and Ar. Ishan Karan Grover.

IIA Thane Centre is in discussion to confirm more architects, both from India and overseas, as guest speakers and to present their work. On the preceding evening, 23 January, 2025 IIA Thane Centre (Maharashtra Chapter) will be hosting an Executive Committee Meeting of Maharashtra Chapter at Hotel Ibis, Thane (W).

IIA Kalyan Dombivli Centre

A workshop on *Ease of Doing Business* was organized jointly by three pillars of the building industry, namely, Kalyan Dombivli Municipal Corporation (KDMC), IIA Kalyan Dombivli Centre and CREDAI MCHI, Kalyan Dombivli unit on 7 October 2024. The Hon. Commissioner of KDMC wishes to bring about a positive change in the system by taking feedback from all stakeholders. Hence, a joint interactive workshop was organized on ‘Ease of doing business and Cluster development’ was organised. This inclusive approach from an Urban Local Body is welcomed and highly appreciable. This workshop was the second part of a dialogue started with KDMC, on 2 August 2024 regarding ‘UDCPR Interpretation Issues. Based on the suggestions received from members and on behalf of IIA Kalyan Dombivli Centre, Chairperson Ar. Keshav Chikodi gave a detailed presentation regarding suggestions to KDMC with regards to the *Ease of Doing Business* (EODB) including hurdles faced in getting various no objection certificates (NOCs), Transfer of Development Right approval and loading process and Construction Amenity TDR. The Centre also requested the Commissioner for creating job opportunities for architects in KDMC Town Planning Department. On behalf of CREDAI MCHI, Kalyan Dombivli Unit, President Shri Rajesh Gupta, gave valuable inputs to KDMC from the developer’s perspective. The Hon. Commissioner of KDMC, Smt. Indurani Jakhar obtained feedback from all architects and developers and concluded with her remarks to this interactive workshop and assured everyone about making positive changes in the system.



Attendees at the Ease of Doing Business workshop: Hon Commissioner & Town Planning Department (TPD) officials of Kalyan Dombivli Municipal Corporation (KDMC) and Members of IIA Kalyan Dombivli Centre.

IIA Kalyan Dombivli Centre has made many suggestions through their presentation and hope those will be positively considered by KDMC. These interactive sessions with the concerned authorities will go a long way in helping practicing architects in their day-to-day challenges while taking various sanctions at KDMC. This dialogue will be continued for improving the working experience and the Centre pledges support to work together for a better KDMC.

Remembering our Armed Forces: Ar. Vishwakumar Badawe, Pune

Ar. Vishwakumar Badawe is a well-known name in Pune and Maharashtra for his sensitive designs that span across various building typologies, with his experience of over five decades' practice. He has offered his design services for social projects like *Niwara*, an old-age home as well as *Bal Kalyan Sanstha*, a village concept where orphan children are brought up by foster mothers, creating a family unit.

Ar. Badawe's contribution is also appreciated by IIA Pune Centre in another area of social work—remembering our Armed Forces through a social organization *SnehSeva*. Ar. Badawe has taken up the task of organizing to send *Diwali Faral*, sweets and savoury items prepared and eaten at the time of Diwali at home. These typical food and snack items are enjoyed during the Deepavali days in Maharashtra. The jawans who are posted at the Indian borders are away from their homes and loved ones during the festive season. Hence, offering good wishes in the form of these sweets and savouries, is a mammoth task that has been undertaken by Ar. Badawe for many years. In this endeavour, a well-known sweet shop from Pune has partly contributed to the actual preparation of the food items. The balance cost is received through contributions. This year, 7000 boxes were sent to Kashmir and Tawang. Planning and execution of this project takes about six months. We salute the Armed Forces posted at the border as well as Ar. Vishwakumar Badawe of Pune for his organizational efforts in this project.



SPEAKERS



ANUPAMA KUNDOO
AKA, Pondicherry



Keynote Speaker
ALEJANDRO ARAVENA
Pritzker Prize Winner, 2016
Elemental, Chile



VINU DANIEL
Wallmakers, Kerala



ZAMEER BASRAI
The Busride Design Studio, Mumbai



THISARA THANAPATHY
Thisara Thanapathy Associates, Sri Lanka



HARSH VARDHAN
Studio Lotus, New Delhi



PRATIK DHANMER
Design Jatra, Maharashtra



DEEPAK GUGARII
VDGA, Pune



DAMIR USSENOV
Lenz, Kazakhstan



SHAJAY BHOOSHAN
Zaha Hadid Architects, UK



KALPANA RAMESH
The Rainwater Project, Hyderabad

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