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EDITOR'S NOTE

Architecture should make us feel different, if not, engineering should be enough.
Daniel Libeskind

The April issue of the Journal is dedicated mainly to publishing the J.K. Award winners, for 2021.

Ar. Apurva Dutta Bose is in conversation with Ar. Martha Thorne

We continue our journey by publishing architectural projects, articles of interest, conversations, sketches, travelogue, etc.

We will be focussing on the IIA Awards for Excellence in Architecture in the May issue, which will also carry articles celebrating our Foundation Day.

Please reach out to us with materials to be published in the Journal. We look forward to carrying quality materials. Also send us your views, opinions, on any matter concerning the profession or the organisation, to be carried in the Voices section.

Architecture begins where engineering ends.
Walter Gropius

Ar. Lalichan Zacharias
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PRESIDENT'S MESSAGE

Dear Members,

Greetings!

People with simple living and high thinking make a distinct influence, worthy of emulation. Simplicity and internal motivation are the hallmarks of distinction. In a fast-paced world with changing priorities, it is good to pause and reflect how to achieve distinction in the practice and education in Architecture.

The recently concluded IIA Awards at Goa was well-organized and conducted by the IIA Goa Chapter team headed by Ar. Amit Sukthankar, Chairman, Ar. Milind Ramani, Convenor, with support from our Vice President Ar. Vilas Avachat Jt. Hon. Sec. Ar. Leena Kumar and the Awards Committee.

Some of the young practices have evolved a distinct style of their own with innovative use of ideas, sustainable materials and also being conscious of the users' needs. This was evident at the presentation of four young Architects at Hyderabad at the curtain raiser for the forth coming NATCON.

I had the opportunity to meet the Office Bearers from a few Chapters at Ludhiana at a meet organized by IIA Punjab Chapter headed by its Chapter Chairman Ar. Sanjay Goel. Those present shared some of the concerns, aspirations, suggestions and vision for their Chapters, followed by a half-day programme with good presentations in the presence of local government representatives.

The Utkal Diwas organized by IIA Odisha Chapter under Chairperson Ar. Rajkunwar Nayak was a celebration of Odisha's heritage and culture apart from honouring senior architects for their contribution.

There are a number of towns with a substantial presence of architects. The Chapters are requested to identify the possibility of forming Centres or Sub-Centres and invite non-members to join IIA to strengthen our organization. It is good to see many Chapters and Centres organize programmes with renewed efforts after a long hiatus. This gives an opportunity for involving more members to develop participation and leadership skills.

With the government's projected growth of infrastructure and public facilities, there is an opportunity for employment of architects by the various related government departments at different levels. We should try to communicate and impress on the government to do the needful as this will be beneficial for both, the government and upcoming professionals.

We have many programmes in quick succession across the country. Let us actively participate to make them distinctly successful.

Warm Regards,

Ar. C. R. Raju
President, IIA

Ar. C.R. Raju
President, IIA

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Immediate Past President

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COMMENTS

My appreciation for the issue's theme note and for the worthwhile mix of articles featured therein. The interview dialogue with Ar. George Ferguson CBE by Ar. Gita Balakrishnan gets my iLike as the questions are framed well and they beget mature, honest answers. Ferguson's thinking is perceptive for us architects to ponder likewise in earnest.

Among other articles that were focused and well-presented, I must make a mention of the research paper titled Natesha: The Manifester which concentrates on this one form of sculptural relief with intended clarity. And the other being In Memoriam : Remembering Mies that is written in brief and aptly reminds us of the notable architect and some of his salient contributions.

Ar. Harshad Bhatia
Mumbai

Enjoyed the IIA journal that gets better and better! It was nice to see old friend Saif Ul Haque in an interview!

Ar. Christopher Benninger

What a change in the IIA journal.
Congratulations to the Team !

Ar. Brinda Somayya
Mumbai

Let me congratulate the entire JIIA Editorial Team for its new format, significant and artistic content and timely publication. IIA Rajasthan Chapter needs to be complimented for their Donation to JIIA.

Ar. Madhav Deobhakta
Mumbai

Same are the earth, sun, wind, and materials, but the design makes all the difference. This is so clearly visible in the recent editions of the JIIA. The JIIA issue of December 2021, themed Universal is superb. It underlines the role of architects in addressing social challenges.

Ar. A.K. Jain
New Delhi

We welcome your comments and suggestions.

Please write to us at **jiiaeditorial@gmail.com**

THEME

REIMAGINING DESIGN DISTINCTION

INSPIRING, SUSTAINABLE, RESILIENT AND INCLUSIVE DESIGN

When I looked up the dictionary meaning of the word 'distinction', it came up as "excellence that sets someone or something apart from others".

So, I wondered what design distinction would mean in today's world, especially in a profession like architecture. Every year many architects are being awarded for excellence for their projects, whether it is the AIA awards, the RIBA prizes, the Pritzker, the Driehaus or the IIA Awards closer home in India. For most practising architects, an award has symbolic relevance, but a fleeting impact on day-to-day decision-making. There's no shortage of reflection about specific winners and losers—there are parades of (often worthwhile) discussion in the architectural press when upper-echelon prizes are announced—but it seems we take the existence of such awards for granted. Is it time for the field to look up and ask - do architectural distinction awards matter? And if so, what does architectural distinction mean after all in current times?

The world today is facing broad and complex challenges that threaten every aspect of our lives. The architect's call to protect the health, safety, and welfare of the public has a new and broader meaning amid challenges such as increasing climate extremes and social inequity. Architects everywhere must recognize that our profession can harness the power of design to contribute to solutions addressing the most significant needs of our time. Every project can be used as a platform for addressing big problems and providing creative solutions. Every line drawn should be a source of distinction in the world.

When one looks at different categories within architectural awards, they seem to be mostly categorized based on the building use such as residential, commercial or educational. There are obviously special projects based on social relevance, sustainability and inclusiveness. But then, isn't every project supposed to be inspiring, sustainable, resilient, and inclusive design? In fact, there could be novel typologies that do not fit into the general categories of design awards.

What if design excellence was about the defining principles of good design in the 21st century and the values that are the need of the hour, like those defined by AIA or RIBA? Could these principles and values, accompanied by key questions, lead to introspection within the fraternity?

Design Distinction for Integration
- How will the project engage the senses and connect people to place?
- What design strategies can provide multiple benefits across the triple bottom line of social, economic, and environmental value

Design Distinction for Equitable Communities
- What is the project's greater reach? How could this project contribute to creating a diverse, accessible, walkable, just and human-scaled community?
- What opportunities exist in this project to include, engage, and promote human connection?

Design Distinction for Ecosystems
- How can the design support the ecological health of its place over time?
- How can the design help users become more aware and connected with the project's place and regional ecosystem?

Design Distinction for Water
- How does the project use water wisely, addressing efficiency and consumption while matching water quality to appropriate use?
- How can the project's water systems maintain function during emergencies or disruptions?

Design Distinction for Economy
- How do we provide abundance while living within our means?
- How will the design choices balance first cost with long-term value?

Design Distinction for Energy
- How can passive design strategies contribute to the project's performance and form?
- How can the project exceed building code efficiency standards to approach net zero energy and net zero carbon?

Design Distinction for Well-being
- How can the design encourage a healthy lifestyle?
- How can the project connect people with place and nature?

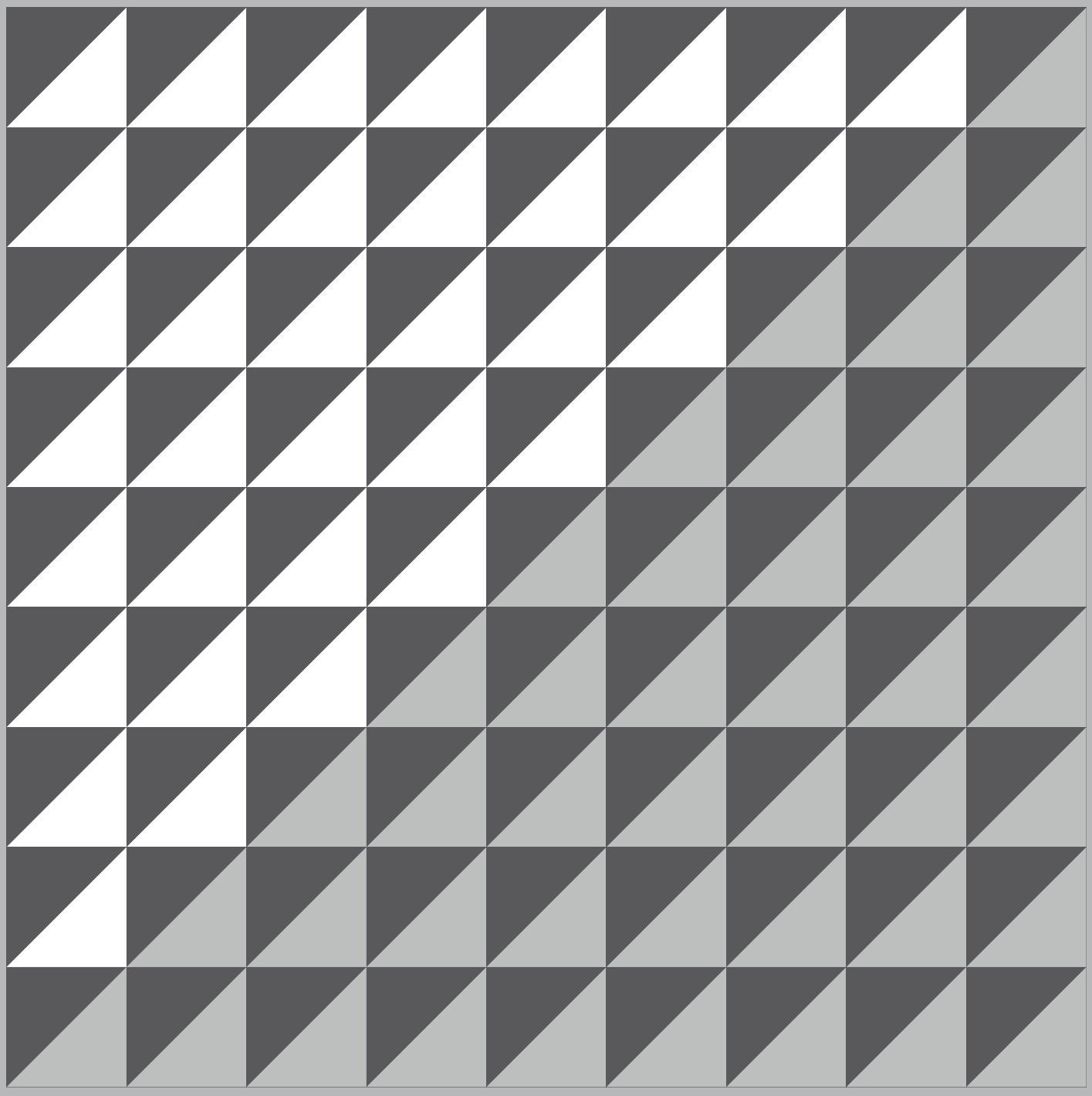
Design Distinction for Resources
- What factors or priorities will be considered in making material selection decisions?
- How does the project celebrate local materials and craft?

Design Distinction for Change
- How does the project address future risks and vulnerabilities from social, economic, and environmental change?
- How is the project designed for adaptation to anticipate future uses or changing markets?

Design Distinction for Discovery
- How can the design process foster a long-term relationship between designers, users, and operators to ensure design intentions are realized and the building project performance can improve over time?
- How are performance data and experiential stories shared, even if the findings fall short of the vision?

These sets of principles and values could lead to countless sets of searching questions that seek to inform progress toward a zero-carbon, equitable, resilient, and healthy built environment. These are to be thoughtfully considered by the designer and client at the initiation of every project and incorporated into the work as appropriate to the project scope. These principles that strive for design excellence could be relevant for every architect, every client, and every project, regardless of size, typology, or aspiration.

Dr. Pratheek Sudhakaran



RESEARCH

Colour Analogy of Mithila Painting The Realm of Art
Prabhat Kumar Jha, Dr. Abir Bandyopadhyay

●

Thermal Comfort in Public Spaces: A Case of Connaught Place, New Delhi
Ar. Kamini Singh, Ar. Mandeep Singh

COLOUR ANALOGY OF MITHILA PAINTING
THE REALM OF ART

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ABSTRACT

Mithila art is the traditional wall decoration art form originating from the centuries-old Mithila kingdom. It consists of vivid colours, repeating patterns, exaggerated side profiles, floral patterns, birds, animals and other mythological figures. The aim of this paper is to find out the percentage and hues of colours used in different types of Mithila paintings to understand its colour analogy – composition and variation of hues. The paper also includes information about different types of Mithila painting, their elements and the various sources of organic colours used. The Hex colour code has been identified using Photoshop. The GIMP tool is used for calculating the percentage of colours in paintings. The study shows that Mithila paintings uses more of bright colours where primary colours are comparatively more than the amount of secondary colours and have a balanced use of cool, warm and natural colours.

Keywords: *Mithila paintings, Primary Colours, Secondary Colours, Colour Analogy.*

1. INTRODUCTION

Women in Mithila, a region around the border of Bihar and Nepal, have been making ritualistic paintings for centuries, reflecting their social world through them (Pande, 2016). They developed floor and wall paintings locally known as *aripana* and *bhittichitra* respectively. These were made on a number of occasions such as the Vedic ceremonies of *yagyopavita* (sacred-thread ceremony) and *vivaha* (marriage) (Rekha, 2011). Folklore says this art form started in the era of *Ramayana* on the occasion of the marriage of Ram and Sita for the decoration of walls. Mithila paintings from that time till now have been used as wall decoration in Mithilanchal within the communities. These paintings were created inside Maithil (residents of Mithilanchal) houses and remained unknown to the outside world until 1934, when a British civil servant W.G. Archer found them during the inspection after a massive earthquake hit Bihar and Nepal region (Oberoi, 2012). After Archer published his work, many scholars, administrators and art lovers published several literatures about the history, elements, colours, artists, etc. of Mithila paintings. However, rarely were any studies conducted regarding percentages and use of different hues of colours used in this style of paintings. The aim of this paper is to address this and find out about the percentage and hues of colours used in different types of Mithila paintings to understand its colour analogy.

2. LITERATURE REVIEW

2.1 Location of Mithilanchal

Mithila, also known as Videha, Tirhut, Tirbhukti or Tairbhukti (Mishra, 2002) is a cultural region rather than a distinct geographical entity (Rekha, 2010). Currently, it covers the North Bihar districts of Darbhanga, Madhubani, Bhagalpur, Saharsa, and Purnea, as well as some districts in Nepal's Terai area (ibid.). Hamilton (1820) had remarked that the Tirhut district is located in the north-western region of Bahar province (now Bihar state) primarily between the latitude of 27 and 28ºN. It is bordered on the north by Nepal's Saptari forest region, on the south by the great Ganges, on the east by the Purneah district of Bengal (in present-day Bihar) and on the west by the district of Sarun. Geographically, Mithila is considered between 25º28' to 26º52' N and 84º56' to 86º46' E (ASI, 1906).

2.2 The Art of Mithila

Mithila painting depicts Hindu mythological images using bright colours combined with fingers, nibs, brushes, and twigs. This art form is divided into unique styles, each with its own characteristics. Aishwarya (2021) has identified five types of Mithila paintings These are :

a) Bharni- This style originated from the *Brahaman* community which means 'filling' in Hindi. It refers to colourful and detailed painting style. Traditionally, this art genre was developed to depict Hindu deities and their historical contributions to Indian mythology.

b) Kachni- This style originated with the Kayastha community and has a distinct style. Linework in the painting is made utilizing a monochromatic or a two-colour palette. Animals, flowers, and other natural elements are frequently seen in these paintings.

c) Godna- Literally meaning "tattoo", this style has been around for a long time. Chanu Devi is mostly credited for introducing it. Repetitive patterns are organised in parallel lines, concentric circles or rectangles to make diverse patterns in this style. The images are mostly drawn in black, however some are coloured (Kumari, 2020). These paintings were started with the depiction of central characters of folklore, mainly Raja Salhes, Motiram, Budheshwar, Dauna Malin, Reshma-Kusma, Chuhdahal etc. (ICH Bihar, 2020).

d) Tantrik- Paintings in the Tantrik style are particularly distinctive, representing traditional and religious texts in a very identical way. This style includes manifestations of Tantrik emblems such as Maha Kali, Maha Durga, Maha Lakshmi, etc (PaintandPaintings, 2020).

*e) Kohbar-*This style predominantly depicts Hindu wedding festivities and is largely created on the internal walls of the Kohbarghar (the honeymoon room of newly-wed couples) of the house (Thakur, 2003).

2.3. Sources of Colour

In order to understand the sources of different colours used in Mithila paintings, Amit Kr. Jha was interviewed (2021). over a visit during October 2021.one of the famous artists (National Merit Certificate in 2016 and Indian National Trust for Art and Cultural Heritage (INTACH), Martand Singh Memorial Award in 2019) residing in Jitwarpur village, which is the hub of Mithila paintings in the Madhubani district Some of the sources of colours used in Mithila Painting were identified by him. The organic sources are:

▶ ***Green-*** *Organically derived from :*

a. Malabar spinach (poro saag); binomial name- Basella alba
b. Corn leaves (bhutte ka patta); binomial name- Zea mays

▶ ***Brown-*** *Organically derived from :*

a. Pipal bark (pipal ka chhal); binomial name- Ficus religiosa
b. Catechu (kattha); binomial name- Senegalia catechu

Figure 1: Pixelating the image using Photoshop tool (free trial version by Adobe Inc.) *(Source: Author)*

Figure 2: Pixel count using GIMP (Open-source software, www.gimp.org) *(Source: Author)*

▶ ***Black-*** *Organically derived from :*
a. Kajal (kohl)
b. Rice husk ash

▶ ***Orange-*** *Organically derived from :*
a. Night-flowering jasmine (parijat phool); binomial name- Nyctanthes arbortristis

▶ ***Yellow-*** *Organically derived from :*
a. Turmeric (haldi); binomial name- Curcuma longa

▶ ***Red-*** *Organically derived from :*
a. Achiote (sindoor); binomial name- Bixa Orellana

▶ ***Blue-*** *Organically derived from :*
a. Asian pigeonwings (aparajita phool); binomial name- Clitoria ternatea

3. METHODOLOGY

The methodology followed for conducting this research is divided into five steps :
Step 1) Firstly, the background and the types of Mithila painting were studied followed by selecting one hundred images of distinct types of Mithila paintings for the analysis.
Step 2) These were further grouped into two groups based on the number of colours present (over a white background), where the first group of fifty paintings consisted of seven colours (red, orange, yellow, blue, green, brown and black) and the other group of fifty paintings had only two colours (red and black).
Step 3) Photoshop (free trial version by Adobe Inc.) as a tool was used for the identification of different hues of colours as hex colour code and for pixelating the images of paintings. GNU Image Manipulation Program (GIMP), an open source software from www.gimp.org had been used for the counting the pixels of different colours present in a painting.
Step 4) The percentage of each colour present in the paintings were calculated manually.
Step 5) Findings are shown as forms of tables and pie charts.

4. ANALYSIS AND FINDINGS

3.1 Analysis of paintings for calculation of percentage
The analysis has been done by calculating the percentage distribution of various colours in paintings. For these different hues of a colour are combined as one colour for simplifying the process. This analysis is shown in the following three steps:

Step 1 : The images were then pixelated to 4 Pixels/ Centimetre (for simplification of calculation) by using Photoshop tool as shown in Figure 1.
Step 2 : The number of pixels for each colour present in the image were counted using GIMP, as shown in Figure 2.
Step 3 : After getting the number of pixels for each colour, the percentage of each colour was calculated (shown in Table 1).

This procedure was followed uniformly for all paintings of both groups. Findings from analysis of first group (7-colours) are shown in Table 2, and the percentage of cool, warm, neutral, primary and secondary colours were calculated in the paintings shown in Table 3. Similarly, the analysis of second group (2-colours) is shown in Table 4.

3.2 Analysis for Different Hues of Colours
In this analysis different hues of colours have been identified as hex colour code using photoshop tool as shown in Figures 3 and 4 for the colour red. A similar process has been followed for the rest of the colours. After this, the percentage area of painting taken up by the specific hue has been calculated and the percentage number of paintings having the specific hue also has been calculated (shown in Tables 4 and 5).

5. DISCUSSION

For the analyses of different hues of colours present in Mithila paintings is studied respectively for seven-coloured samples and two-coloured samples.

In seven-coloured samples, it is observed that :
- *For Red category :*
- Antique Ruby Red (#862425) which is made out of achiote (sindoor), binomial name- Bixa *orellana,* covers the maximum percentage area (see Table 5(a) and Figure 6).
- Magic Potion Red (#f8465c), made out of fabric dyes is the most repetitive hue (see Table 5(a) and Figure 5).

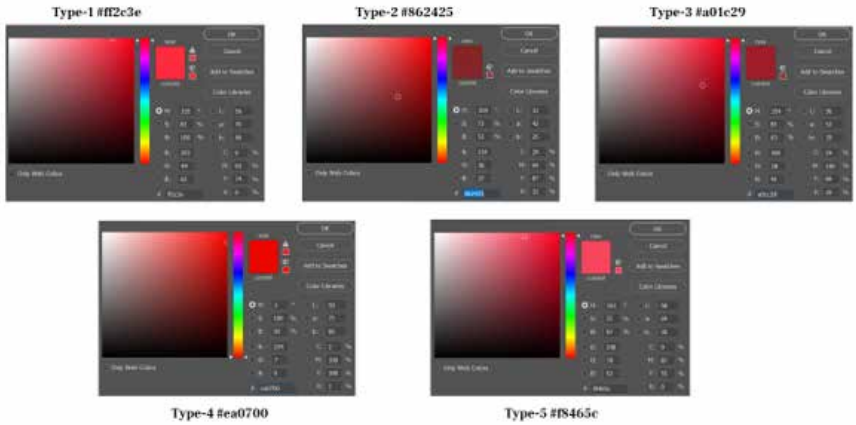


Figure 3: Hues of colour red in seven-coloured paintings
(Source: Author)

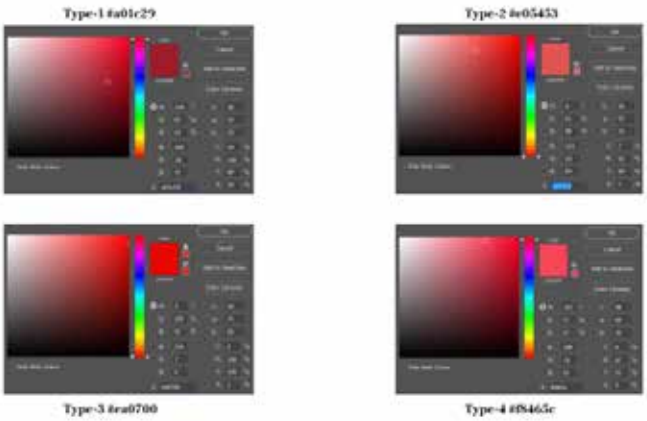


Figure 4: Hues of colour red in two-coloured paintings
(Source: Author)

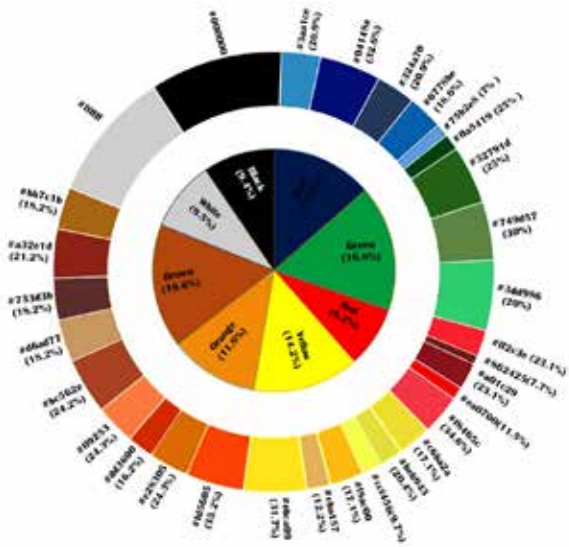


Figure 5: Percentage number of paintings having the specific hue in seven-coloured paintings
(Source: Author)

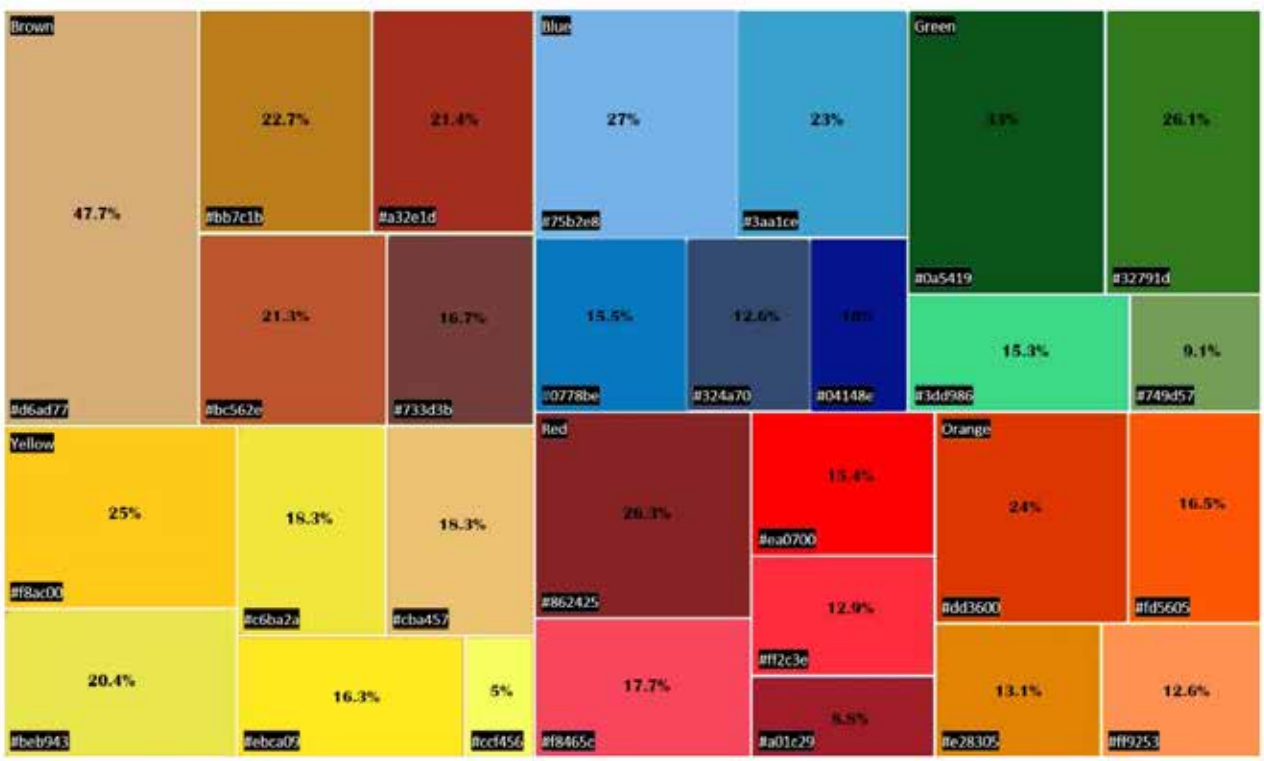


Figure 6: Percentage area of painting taken up by the specific hue in seven-coloured paintings
(Source: Author)

- *For Yellow category :*
- Old Gold Yellow (#862425) covers the maximum percentage area (see Table 5(b) and Figure 6)
- Citrine Yellow (#ebca09), made out of turmeric is the most repetitive hue (see Table 5(b) and Figure 5).

- *For Blue category :*
- Aero Blue (#75b2e8) which is similar to the colour of nemophila flower (baby blue eyes), covers the maximum percentage area (see Table 5© and Figure 6).
- Phthalo Blue (#04148e), made out of Asian pigeonwings flowers (aparajit phool); binomial name- Clitoria *ternatea* is the most repetitive hue (see Table 5© and Figure 5).

- *For Green category :*
- Forest Green (Traditional) (#0a5419) which is made out of corn-leaves (bhutte ka patta); binomial name- Zea mays, covers the maximum percentage area (see Table 5(e) and Figure 6).
- Moss Green (#749d57), made out of grasses is the most repetitive hue (see Table 5(e) and Figure 5).

- *For Brown category :*
- Light French Beige Brown (#d6ad77) which is made out of peepal bark (pipal ka chhal); binomial name- Ficus religiosa, covers the maximum percentage area (see Table 5(f) and Figure 6).
- Ruddy Brown (#bc562e), made out of catechu (kattha); binomial name- Senegalia catechu is the most repetitive hue (see Table 5(f) and Figure 5).

Similarly in two-coloured samples :
- Electric Red (#ea0700) which is made out of alta dyes, covers the maximum percentage area (see Table 4).
- Vivid Burgundy Red (#a01c29), which is also a variant of the colour of sindoor is the most repetitive hue (see Table 4).

6. CONCLUSION & RECOMMENDATIONS

Mithila paintings are seen to use more primary colours as compared to secondary colours. There is a balanced use of cool, warm and natural colours. The most-used colours are often bright colours made from natural sources such as rocks, vermilions, leaves, flower petals, etc. In seven-coloured Mithila paintings, orange, yellow, green and brown are comparatively more used than blue, red, black and white. Two-coloured Mithila paintings have approximately equal amounts of black and white which cover approximately three-fourths of the painting together. In two-coloured paintings, the colour red covers approximately one-fourth of the composition.

There are various examples of paintings being utilised as inspiration for the colours and forms used in contemporary design, such as the *Red and Blue Chair* and *Schroder House* by Ar. Gerrit Rietveld and *Eames House* by Charles and Ray Eames was inspired form the Piet Mondrian's iconic De Stijl painting. Le Corbusier's colour palette was also influenced by Pablo Picasso's colours, which can be seen in several of his works, including the *Corbusier Pavilion* in Zurich.

This study is unique in the Indian context, and it can be used as a source of colour inspiration in architecture. The use of colours in buildings, their aesthetic appreciation may have a psychological anchorage to the age-old traditional paintings done on the walls of buildings in Mithilanchal. This may be an arena of further research.

Table 1: **Calculation of Percentage (The pixel count was retrieved from GIMP)**
(Source: Author)

Colours	No. of Pixels	Percentage
1. Blue	0689	6.5%
2. Green	2340	22.1%
3. Red	2055	19.5%
4. Orange	1916	18.1%
5. Yellow	1462	13.8%
6. White	2117	20.0%
TOTAL	10,579	100%

Table 2: **Analysis of seven-coloured paintings**
(Source: Author)

	Blue %	Green %	Red %	Yellow %	Orange %	Brown %	Black %	White %
1	10	7.5	7.5	7.5	17.5	7.5	37.5	0
2	20.5	15.9	0	20.5	0	29.5	13.6	0
3	4.4	11.6	5.8	7.2	5.8	10.2	0	55
4	9.8	8.5	1.2	19.5	24.4	4.9	31.7	0
5	0	13.3	0	6.1	7.1	12.2	10.2	51
6	0	0	47.6	4.8	0	0	12	35.6

7	37.5	0	0	12.5	0	0	16.7	33.3
8	36.3	9.1	27.3	27.3	0	0	0	0
9	28.6	32.1	0	7.1	0	0	32.2	0
10	22.2	17.1	11.1	38.9	0	10.7	0	0
11	21.5	50	0	7	21.5	0	0	0
12	16	1.7	6.5	64.5	11.3	0	0	0
13	0	0	4.9	29.3	0	0	34.1	31.7
14	10.5	10.5	10.5	5.3	0	0	0	63.2
15	11.4	37.1	0	17.1	5.7	0	0	28.7
16	11.1	16.7	5.5	16.7	11.1	22.2	0	16.7
17	5.5	30.6	0	36.1	0	27.8	0	0
18	16.7	8.3	0	20.8	0	33.3	20.9	0
19	14.7	32.4	0	32.4	0	20.5	0	0
20	17.8	25	0	3.6	14.3	25	14.3	0
21	0	37.5	0	12.5	12.5	37.5	0	0
22	5	16.7	0	1.7	10	23.3	0	43.3
23	22.2	18.5	0	37	7.4	14.9	0	0
24	0	10	3	0	0	17	25	45
25	13.6	4.6	0	0	68.2	13.6	0	0
26	6.1	21.2	0	36.4	9.1	27.2	0	0
27	16.7	10	0	6.7	33.3	33.3	0	0
28	19	32.4	0	10.8	24.3	13.5	0	0
29	19	0	0	4.8	14.3	47.6	0	14.3
30	7.6	43.9	0	10.6	7.6	21.2	9.1	0
31	20.07	15	0	8.1	15.6	40.6	0	0
32	15.6	15.6	0	37.5	31.3	0	0	0
33	33.3	16.7	11.1	22.2	16.7	0	0	0
34	40.9	31.8	0	9.1	13.6	0	4.6	0
35	13.1	43.4	0	30.4	13.1	0	0	0
36	0	25	12.5	25	25	0	12.5	0
37	5	0	5	0	20	40	30	0
38	3.9	0	23.1	0	15.4	46.1	11.5	0
39	7.2	0	14.3	0	11.9	38	28.6	0
40	5.8	0	19.2	0	9.6	38.5	26.9	0
41	12	0	32	0	0	40	16	0
42	9.1	0	25	0	9.1	47.7	9.1	0
43	31.6	21.1	0	5.2	10.5	31.6	0	0
44	15.8	15.8	15.8	15.8	10.5	21	5.3	0
45	12.5	12.5	18.7	31.3	18.7	6.3	0	0
46	5.4	26.3	10.5	10.5	10.5	15.8	10.5	10.5
47	15.4	38.5	15.4	11.5	11.5	0	7.7	0
48	9.1	18.2	12.1	0	9.1	9.1	18.2	24.2
49	7.4	11.1	29.7	11.1	25.9	0	14.8	0
50	6.4	25.9	12.9	6.4	6.4	0	16.1	25.9
Average	**13.5**	**16.8**	**8.2**	**14.2**	**11.8**	**16.6**	**9.4**	**9.5**

Table 3: **Analysis of colours in group**
(Source: Author)

1. Cool Colours Blue, Green	**Warm Colours** Red, Orange, Yellow	**Neutral Colours** Brown, Black, White
30.3%	34.2%	35.5%
2. Primary Colours Blue, Red, Yellow	Secondary Colours Orange, Green	-
35.8%	28.7%	

Table 4: **Analysis of two-coloured paintings**
(Source: Author)

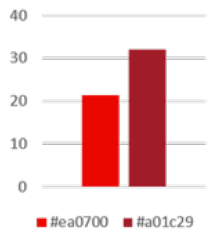
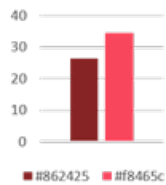
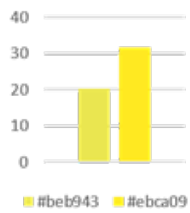
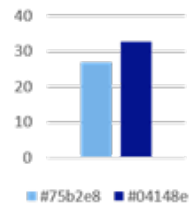
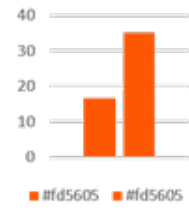
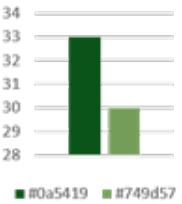
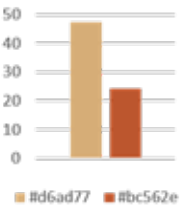
Colours	**Red**	**Black**	**White**		
	17.4%	46%	36.6%		
RED	Type-1 #a01c29	Type-2 #e05453	Type-3 #ea0700	Type-4 #f8465c	Hue covers most percentage area taken and most repetitive hue
Percentage area of painting taken up by the specific hue	16.6%	14.5%	21.3%	18%	
Percentage number of paintings having the specific hue	32%	30%	26%	12%	

Table 5: **Analysis of different hues of colour**
(Source: Author)

	Type-1	**Type-2**	**Type-3**	**Type-4**	**Type-5**	**Type-6**	**Hue** (covers most percentage area taken and most repetitive)
a) Red	#ff2c3e	#862425	#a01c29	#ea0700	#f8465c	-	
Percentage area of painting taken up by the specific hue	12.9%	26.3%	8.8%	15.4%	17.7%		
Percentage number of paintings having the specific hue	23.1%	7.7%	23.1%	11.5%	34.6%		
b) Yellow	**#c6ba2a**	**#beb943**	**#ccf456**	**#f8ac00**	**#cba457**	**#ebca09**	
Percentage area of painting taken up by the specific hue	18.3%	20.4%	5%	25%	18.3%	16.3%	
Percentage number of paintings having the specific hue	17.1%	12.2%	9.7%	17.1%	12.2%	31.7%	
c) Blue	**#3aa1ce**	**#04148e**	**#324a70**	**#0778be**	**#75b2e8**	**-**	
Percentage area of painting taken up by the specific hue	23%	10%	12.6%	15.5%	27%		
Percentage number of paintings having the specific hue	20.9%	32.6%	20.9%	18.6%	7%		
d) Orange	**#fd5605**	**#e28305**	**#dd3600**	**#ff9253**	**-**	**-**	
Percentage area of painting taken up by the specific hue	16.5%	13.1%	24%	12.6%			
Percentage number of paintings having the specific hue	35.2%	24.3%	16.2%	24.3%			

e) Green	#0a5419	#32791d	#749d57	#3dd986	-	-	
Percentage area of painting taken up by the specific hue	33%	26.1%	9.1%	15.3%			
Percentage number of paintings having the specific hue	25%	25%	30%	20%			
f) Brown	**#bc562e**	**#d6ad77**	**#733d3b**	**#a32e1d**	**#bb7c1b**	**-**	
Percentage area of painting taken up by the specific hue	21.3%	47.7%	16.7%	21.4%	22.7%		
Percentage number of paintings having the specific hue	24.2%	18.2%	18.2%	21.2%	18.2%		





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THERMAL COMFORT IN PUBLIC SPACES: A CASE OF CONNAUGHT PLACE, NEW DELHI

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ABSTRACT

This research identifies and evaluates the local climatic zones in streets and plaza spaces of Connaught Place, New Delhi to analyse the space-form-activity relation. The phenomenon being studied here is the variation in micro-climatic conditions because of changing urban form, material, natural features and anthropogenic heat sources. The paper is built on the hypothesis that there is an impact of spatial form and elements on microclimate which further influence the user perception of thermal comfort and hence, the activities in public spaces. The quantitative data of microclimatic parameters is overlaid upon the human activity levels. This is done by collecting primary data for ambient temperature, surface temperature, humidity, wind velocity and CO2 levels for the selected ten spots in Connaught Place. The variation in the data is then analysed for underlying causes and whether it is related to the physical properties of that space. The selected physical properties are layout, height-width ratio, surface materials, orientation, amount, and the type of vegetation. The results show a significant variation in spot level micro-climatic data within a spatial boundary of 1.5 kilometre of study area.

Keywords: *Public spaces, urban climates, thermal comfort, urban surfaces, Connaught Place*

1. INTRODUCTION

Global warming is likely to reach 1.5ºC between 2030 and 2052 if it continues to increase at the current rate (IPCC, 2018). The rise in global temperatures and changing patterns of climate is first witnessed in urban centres which are the generators and major cause of heat island and temperature inversions. Although no single field of study can deal with the issue, yet the role of built environment cannot be ignored. The city centres which are often public spaces have been found to show higher temperature than the urban periphery. When the public spaces become uncomfortable for users, the preference for indoor air-conditioned spaces increases and further contribute to anthropogenic heating of outdoors. People are forced to follow a lifestyle that is energy-intensive and is active in artificial environments.

The vibrancy of outdoor public spaces is determined by the number of people actively using that space. In outdoor environments, people prefer sunny places in winters, shade from extreme radiations in summer, to enjoy spring breeze and places next to water in hot-dry climates. Comfort can be thought of as the balance between relaxation and stimulation. . . When we enter a space, we perceive it through our senses. Sensory stimuli cause emotional arousal, which can lead to psychological and physiological responses of comfort or discomfort (Huss, 2016). The study of urban comfort must deal with the comfort of people in urban public spaces where it is seen as a collective cultural and climatic attribute. The cultural practices enable users to adapt to extreme climatic conditions, aspects of everyday life, activities and rituals. Hence, it is suitable to call it as 'achievement rather than attribute' (Tavares, 2015). The human response to climate is either through clothing, increase or decrease in activity, gathering in sunny or shaded areas, or in extreme cases choosing an indoor space for social interaction. When outdoor spaces are more comfortable for user there is greater activity contributing to the success of a public space.

2. CONNAUGHT PLACE, NEW DELHI

2.1 Context

The city of Delhi lies in the composite climatic zone with climate ranging from 47ºC on summer afternoons to 2ºC on winter mornings. Connaught Place, at the low-density core zone of the city of Delhi, has central ridge greens on left and the River Yamuna on right side, both within 5km distance. It is considered to be the city centre of the capital, Delhi as envisaged by Lutyens, the architect of New Delhi. The metro station is the busiest in the city with a footfall of 5 lakh passengers per day (DUAC, 2018). From the primary survey it was found that about 71% of visitors use the metro to reach Connaught Place. It attracts men and women of varied age groups equally and the most popular purpose of the visit is eating, shopping and meeting family and friends. 62% of people who participated in the survey visit monthly. The most popular time to visit is between 2:00 – 6:00 pm except during summer months when there are greater number of visitors after 6:00 or later. It is the most popular public place in the city and attracts varied age groups, genders and activities. However, in a study conducted by the Centre for Atmospheric Sciences, Indian Institute of Technology, Delhi (Mohan, 2009), it was among the warmest pockets in the entire study area i.e., the Connaught Place- Sitaram Bazar zone. This pocket not only has the highest urban heat island (UHI) but also covers the largest area in comparison to other pockets on all days.

3. METHODOLOGY

A study of physical characteristics was done through photography, mapping and architectural drawings for selection of key spots. This was followed by a user survey to understand general user perception of space with 53 participants (29 males and 24 females) of varied age, gender and economic status. Micro-climatic data was collected with Testo 174 H Mini Data Logger for temperature and humidity and Testo 480 Multi-Function HVAC Meter for spot-level temperature, humidity, wind velocity and CO2. Testo 872 IR Image camera was used for thermal imaging. The data was collected for a duration of three days (22-24 November 2019) at three intervals (12 am, 2 pm and 4 pm). The spots selected are shown in Figure 1.

3.1 Research parameters:

i) Canyon Aspect ratio & Shading: Since building blocks create an urban canyon that collects heat, height to width (H/W) ratio has an influence on heat mitigation by shaping the canyon for wind distribution and street shading (Takkanon, 2016). The inner circle street has a shaded arcaded pathway running parallel to the buildings, with trees at occasional spaces (H/W ratio =1). The middle circle street in between does not have any arcade or trees, but due to the high street canyon (H/W ratio =1.6), there is mutual shading by buildings for most of the day. The outer circle has double-height arcades and varying building heights of 4 to 86 metres on the opposite side. The H/W ratio varies from 0.175 to 1. The streets radiating from the inner circle to outer circles have pathways shaded by arcades along the edge of buildings and the H/W ratio of the street canyon varies from 0.5 to 0.3.

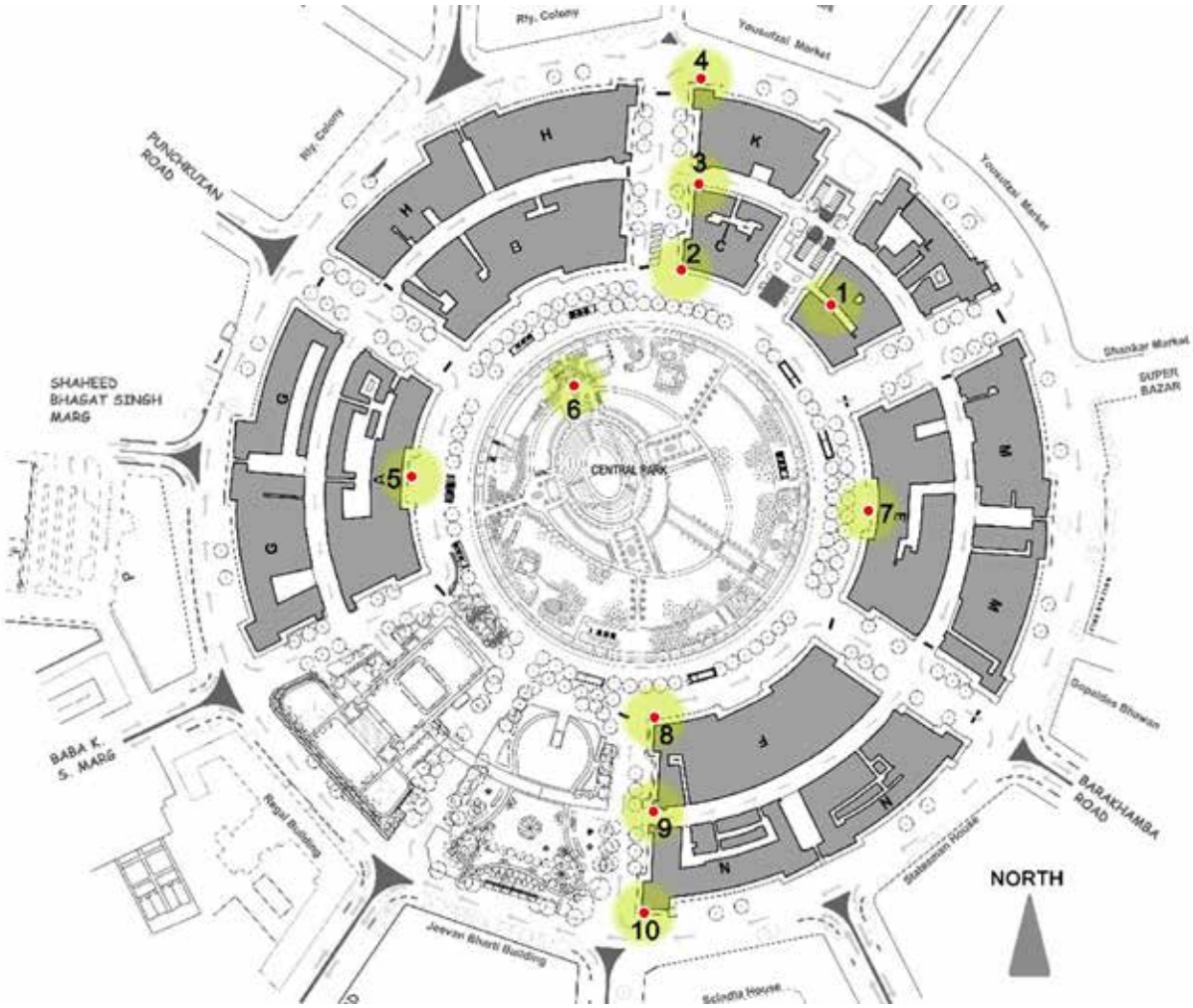


Figure 1: Map showing spots selected for climatic data collection
(Source: Author)

ii) Orientation: Due to the circular layout and identical buildings, the site provides an opportunity to evaluate the diurnal influence of changing orientation. The circular layout added issues in perceiving the location and way-finding as identified during user survey by 54% of the respondents.

iii) Vegetation: The site is sparsely vegetated with planters at regular interval and few large trees with dense foliage along inner and outer circle streets. The large lawns of central park have greater variety and combination of shrubs, decorative plants and large trees (on the eastern side only due to underground metro).

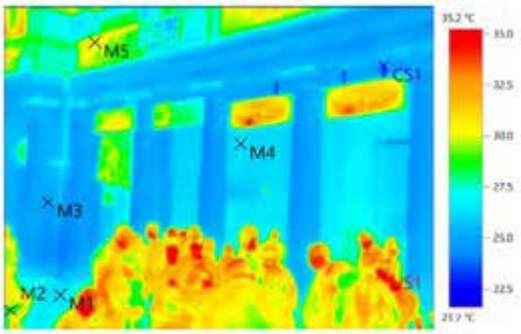
iv) Street Furniture: The site has three types of seating facilities – seating with granite stone cladding, circular and straight metal benches, and granite kerbstones and planter seat walls. Most of the amenities are in better condition in the inner circle while the middle circle lacks lighting in several spots and has no seating facility. The three critical issues according to the user survey were : (1) the number of seats (2) the area of sunny versus shaded walkable spaces (3) the quality of public toilets. Most of the public toilets are at the middle circle and were poorly maintained. 60% of the women were not satisfied with the public toilets while men had a lower percentage (46%) of dissatisfaction with public toilets.

v) Materials: The building façade is primarily made up of brickwork with lime and cement mortar with white cement plaster (originally lime plaster) which keeps the façade cooler. The metal signage with lights, air-conditioning units etc. cover part of the façade and are 6 degrees warmer in November as compared to the white plastered surface (Figure 2). The material of paving on pathways includes black granite, red sandstone, and interlocking pavers (Figure 3). The vehicular road is made up of black asphalt with cobblestones for table-top pedestrian crossing.

vi) Urban micro-climate: According to the Safdurjung Weather Station data for survey dates, the maximum temperature at 2:00 pm was 26.1ºC. The hourly average wind direction was west (40%), north (37%), east (15%), and south (8%) and average wind speed was 5.8 miles per hour (the windiest time of day was at 2:15 PM) (Retrospective, 2019).

4. RESULTS

The spot-wise primary data of the selected ten spots was as shown in Figure 4. The spot-wise microclimatic data was utilized to calculate thermo-physiological significant index of physiologically equivalent temperature (PET) using the Rayman model. Further spatio-physical characteristics were evaluated for each spot where in the

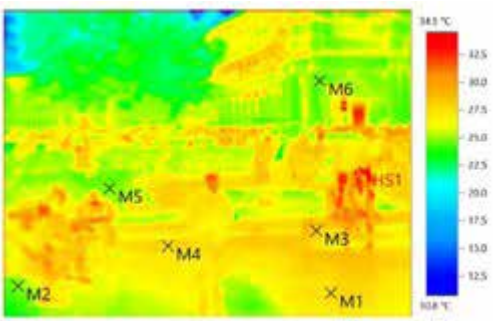


Picture data:				
	Date:	24-11-2019	**Emissivity:**	0.95
	Time:	14:13:28	**Refl. temp. [*C]:**	20.0
	File:	SR001136.BMT		

Picture markings:

Measurement Objects	Temp. [*C]	Emiss.	Refl. temp. [*C]	Remarks
Measure point 1	26.1	0.95	20.0	pedestrian pathway
Measure point 2	28.2	0.95	20.0	SS bench
Measure point 3	24.8	0.95	20.0	Building facade - white plaster
Measure point 4	26.1	0.95	20.0	building facade - shaded in arcade
Measure point 5	30.3	0.95	20.0	signage board - metal
Cold spot 1	21.7	0.95	20.0	metal - shaded
Hot spot 1	35.2	0.95	20.0	human

Figure 2: Thermal image of vertical surfaces at spot no. 7
(Source: Author)



20.0

Picture data:				
	Date:	24-11-2019	**Emissivity:**	
	Time:	14:13:28	**Refl. temp. [*C]:**	
	File:	SR001209.BMT		

Picture markings:

Measurement Objects	Temp. [*C]	Emiss.	Refl. temp. [*C]	Remarks
Measure point 1	26.5	0.95	20.0	Paving
Measure point 2	23.9	0.95	20.0	Seating
Measure point 3	27.5	0.95	20.0	Seating
Measure point 4	26.9	0.95	20.0	kerb
Measure point 5	23.8	0.95	20.0	plants
Measure point 6	23.9	0.95	20.0	building facade - plaster
Hot spot 1	34.5	0.95	20.0	Auto riksaw

Figure 3: Data from thermal image of horizontal surfaces at spot no. 2
(Source: Author)

thermal images were overlayed on architectural drawings to explore the relation between spatial orientation, surface temperatures, spatial enclosure (calculated by H/W ratio of the street canyon) and the presence of vegetation. The relation thus understood was evaluated to understand the user-thermal comfort through PET and activity at each spot. The results are compared and analysed in Table 1 below. The colour coding denotes actual surface temperature recorded as per scale in spot 1.

The temperature data showed maximum variation of 2.7ºC at 12:00 AM. The least variation in temperature was recorded at 4:00 PM of 1.8ºC. Lower temperatures were recorded on the spots located on north-south orientation, high vegetation and shade. Higher temperatures were recorded on spots with greater building enclosure, low vegetation and facing south and west. Humidity increases by evening in all the selected spots. However, the maximum variation was only 6 % due to dry season. Also, humidity data shows inverse co-relation with temperature. Wind velocity has a close co-relation with the enclosure and orientation. Spaces located at building corners and junctions show greater wind velocity. Open space in the central park (negligible enclosure at spot 5) and space enclosed from all four sides (maximum enclosure at spot 1) show negligible wind velocity. Also, hazardous CO2 levels were recorded due to anthropogenic heat produced from vehicles and outdoor unites of air-conditioners. A greater wind velocity results in lower CO_2 levels.

Key observations

- Spots oriented towards east were less active till mid-day as the early sun exposure kept the surfaces warm till 2:00 pm. The spot facing west remains comfortable till 2:00 pm and had high activities till mid-day.
- Trees with dense foliage had the greatest impact on micro-climate. The shadows cast reduce the surface temperatures, maintains humidity levels and wind velocity, and lower CO2 levels

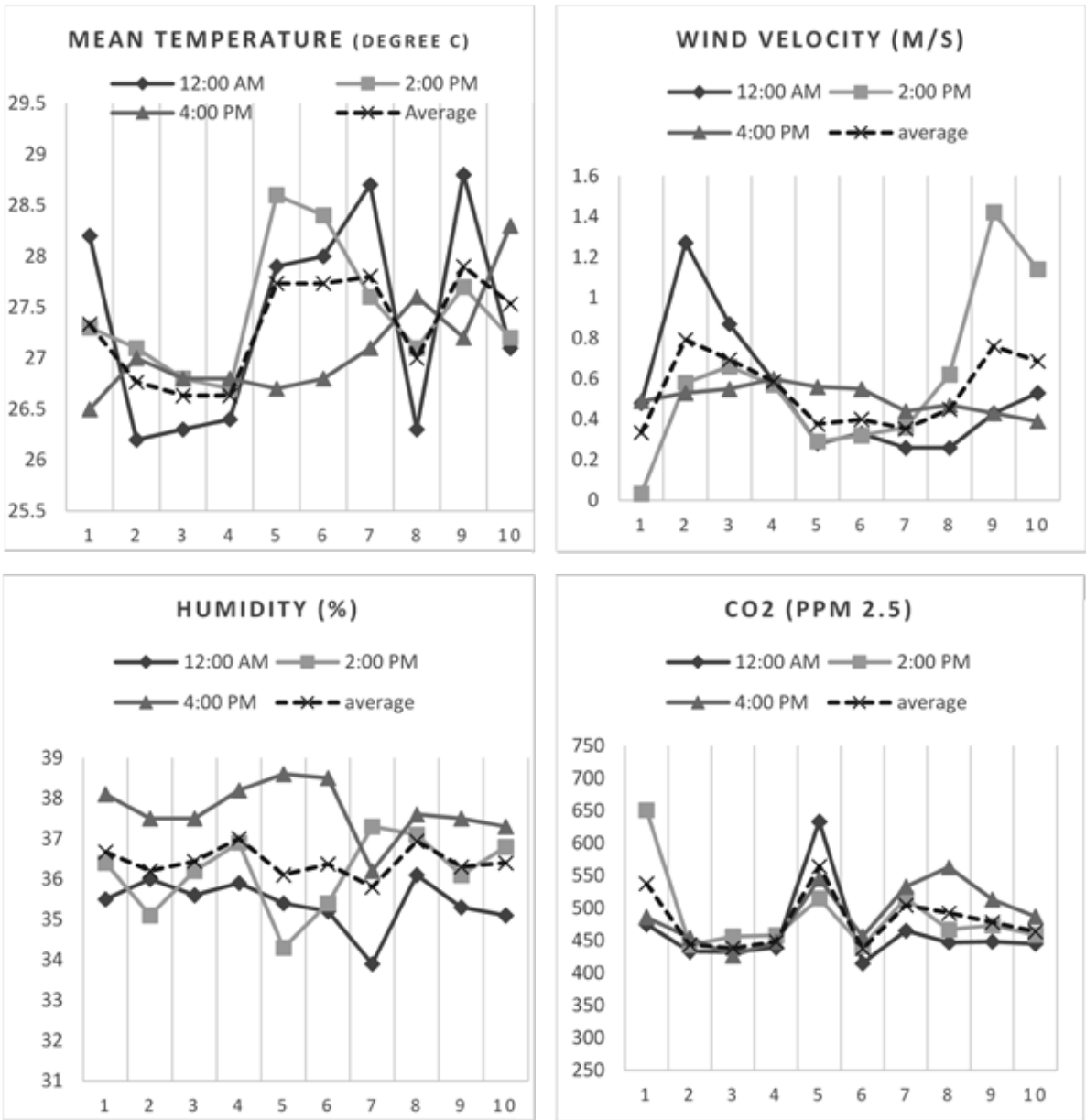
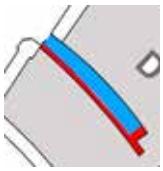
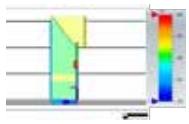
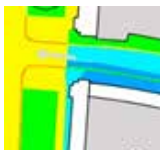
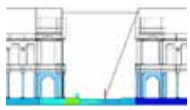
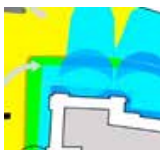
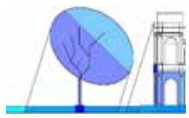
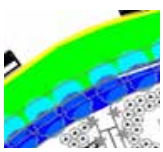
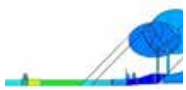
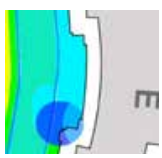
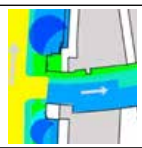
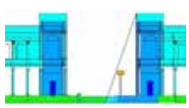


Figure 4: Comparative graph of temperature, humidity, wind velocity and CO2 data for ten spots at Connaught Place, New Delhi (22-24 November 2019) *(Source: Author)*

Table 5: **Analysis of different hues of colour**
(Source: Author)

Spot No	Orien-tation	Plan form& surface temperature	H/W ratio	Section showing surface temperature	Space type	Shading	PET	Inference
1	NE & SW		2.5		Inner Lane	Adjoining building Shadow	27.3	• 3 side enclosure lowest H/W ratio, lack of openings in the built mass causes negligible wind velocity results is average PET • The overall Impact of AC Outdoor units, kitchen emissions and Low wind velocity account for very high level of CO2.
2	South Facing		0.5		Plaza	Arcade, trees	26.8	• Southern orientation, high wind velocity, shaded with dense tree foliage cause low PET & low CO2 levels. • High human activity – Arcade, Plaza, and seating spaces with a combination of sunny and shaded areas.
3	North facing		1.25		street	Building shadow till noon	26.6	• Inner circle with northern orientation, high H/W ratio and cross-junction cause for canyon effect and greater wind velocity. • Lowest PET value and CO2 levels
4	North facing		0.3		Parking Plaza	Peepal (Azadirachta Indica) tree, Building Shadow	26.6	• Outer circle with Northern Orientation, high vehicular activity and large dense foliage of Ficus religiosa cause high wind velocity and shading • Lowest PET value and CO2 levels
5	North facing		0.05		Plaza	Evening Shadows, tall tree sparse foliage, Arcade	27.8	• Highest temperature till 2 pm, tall tree with sparse foliage lowest wind velocity and highest CO2 • High PET value and low activity levels till midday.
6	Open to air		0.01		Park	Trees, grass cover, water body	27.7	• High temperature till 2 PM, and low temperatures by evening cause for high human activity in the evening. • Green cover and patches of dence plantation, low antrhopogenic heat and low CO2 levels
7	West facing		0.05		Plaza	Morning Shadows, Tree with sparse foliage	27.5	• Western orientation with partial enclosure, constant temperature, low wind velocity and CO2 levels throughout day. • Average PET Levels and comparatively active spot due to low solar radiations
8	North facing		0.35		Street	Directly below tree, Building shadow, arcade	27.1	• Very high CO2 levels by evening time due to greater vehicular movement. •Low PET levels low wind velocity due to north facing façade and dense trees • High activity comprising of predominantly male users.
9	South facing		1.25		Street	Adjoining building Shadow	27.6	• Average PET levels due to greater enclosure and cross-junction • Only vehicular movement and moderate CO2 levels
10	South facing		0.41		Plaza	none	28.4	• Highest PET value & low CO2 levels • Pedestrian plaza at the Traffic junction crossing. Least comfortable spot- high surface temperatures, glare, empty seating, transitory space.

- Higher wind velocity near corners and in street canyons, low in plazas enclosed on three sides.
- North-south orientations are better for pedestrian comfort levels and were seen to be more active.
- The vertical surfaces plastered white were cooler than the ambient temperature of the spot.
- The glossy-reflective, dark coloured granite stone paving and had higher surface temperature (31ºC) than the ambient temperature in sun and in shade it was 2-3 degrees lower (24ºC) than the ambient temperature.
- The horizontal road surfaces with asphalt have high temperatures ranging from 28ºC in shade and 30ºC in solar-exposed condition.

5. CONCLUSION

The site appears to have a strong symmetry and uniformity in terms of built form and material. The space which appears uniform in terms of architecture, have been found to have local climatic zones of varying comfort range. When the spot level micro-climatic data was compared to the city level metrological data the variation in temperature was within a range of 3 to 4ºC. The individual spots show very high variation in terms of humidity up to 5%, wind velocity up to 1.3m/s, CO2 levels up to 200 ppm 2.5 and surface temperatures ranging from 3ºC (air-conditioned spaces with glass) to 100ºC (motor vehicles) due to the three-dimensional physical form, orientation, shading, materials used on outdoor spaces and the anthropogenic heat produced due to human activities such as vehicular emissions. This greatly impacts the comfort characteristics of the space and sub-conscious user perception about the comfort levels of the space. This eventually affects the quality of an urban space and its place-making characteristic.

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Kamini Singh is a practising architect, urban designer and a faculty at Apeejay School of Architecture and Planning, Greater Noida. Her research interest lies in exploring the place-making potential of urban spaces. She has over nine years of professional experience in academia, research, and architectural practice.

Prof. Mandeep Singh has been Head, Architecture (2014-15 & 18-19), Dean of Studies (2015-17), Head, Urban Design (2011-14), Head, Industrial Design (2005-10), apart from being a full-time faculty at the School of Planning and Architecture, New Delhi from 1986 to 2021. In addition to teaching, guiding design and research projects for 35 years, Prof. Singh is currently serving in several committees set up by the Government of India.

CALL FOR ARTICLES PROJECTS PAPERS

Journal of the Indian Institute of Architects invites original and unpublished contributions from members (academicians, practitioners and students) under the three categories given below.

In order to be accepted for publication, all material sent in these categories should be sent in 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

Essays, interviews, articles (1500- 2500 words) and book reviews (600 and 750 words) 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 given below).

- 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.
- Further, it is important that along with the manuscript, we receive an undertaking from you that the stated architect/ architectural firm is the author of the architectural projects mentioned in the article, and that IIA and JIIA is in no way responsible for any matter or dispute arising out of the publication of the same.

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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 given below)

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

Category 4

Contributions from Chapter Correspondents

(a) *Chapter News:* This includes various interesting activities from the Centres of your Chapters (maxm. 500 words for the news from the *entire* Chapter). All material sent should be sent in the following two components :

1. MS Word document file with text only. Please do not format it in anyway. No pdfs will be accepted. The numbered captions for all the images will also be in this document. This should NOT contain any images.
2. Folder with all images (minimum 300 dpi), numbered according to the captions given in your text file.

(b)*Projects:* Identify outstanding architectural projects of members and send them to JIIA Team to consider for publication. (Please follow the design project requirements as given in Category 1)

© *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.

Note

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2. Format is available on the JIIA website : https://indianinstituteofarchitects.com/wp-content/uploads/2021/06/Doc_for_Call_for_articles__projects_and_papers__10.6.2021_.pdf

Wall :SURFACE NIGHT & SURFACE XL COOL GREY
(1200x2400mm) Hard Matt finish

Floor: MEGALITH GRIS
(1200x1200mm) Satin Matt finish

Sanitaryware : MORNING (TABEL TOP) ,
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31st Architect of the Year Awards

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NOTE FROM THE DESK OF MD DR. RAGHAVPAT SINGHANIA

Dear Architects,

New goals! New Beginnings! Wishing you all a Prosperous & profitable new financial year ahead!

At the outset, congratulation to all the winners of 31st JK AYA for their extraordinary designs that left all of us with a deeper sense of appreciation for architecture. I would like to express my sincere gratitude to all the respected jury members for their support in evaluating all the entries & deciding the winners under various categories. It is because of the support of jury members & participants, that we are still able to continue the legacy of JK AYA.

The visual appeal of architecture has the power to fascinate and inspire us! Such architectural marvels deserve appreciation and acknowledgement of the hard work that they put behind in their creation. In the current scenario thoughtful and sustainable design elements, generate greater impact on the society' and have become the need of the hour for the Architectural works. Being an advocate for sustainable ways of operating, I truly believe in the transcendence towards sustainable infrastructures.

We at JK Cement are a leading manufacturer of building materials and are constantly working towards making our ways of operations sustainable. We have invested a great deal in our goal towards decarbonisation and are reducing our emission footprints. I am optimistic that, together we all can transform and work towards a sustainable future.

The germination of the seed for JK Architect of the Year Awards was undertaken by Late Shri Yadupati Singhania Ji- Former Chairman of JK AYA, in 1990 and today it has started growing manifold with the support of the Architect community. The JK AYA community will continue the journey of felicitating the outstanding & extraordinary contribution of the architects with their designs & innovations. I would like to thank the masterminds - architects, participants, jury members & award secretariats, for their constant support and association with JK AYA and would like to request all architects to continue participating in our awards.

The participation for 32nd JK AYA is now open and all the architects can nominate their best projects.

Here's wishing you a future filled with Success and Prosperity.

With best wishes.

Dr. Raghavpat Singhania
Managing Director, JK Cement Ltd.
Chairman (JK AYA)

COMPANY PROFILE

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(Grey Cement)

J.K. Cement Ltd., Gotan Plant
(White Cement)

JK Cement Ltd is one of India's leading manufacturers of Grey Cement and the third largest White Cement manufacturer in the World. Over four decades, the Company has partnered India's multi-sectoral infrastructure needs on the strength of its product excellence, customer orientation and technology leadership. JK Cement's operations commenced with commercial production at its flagship grey cement unit at Nimbahera, Rajasthan in 1975.

The Company has an installed Grey Cement capacity of 14.7 MnTPA as on date, making it one of the top cement manufacturers in the Country. JK Cement Ltd. is the No. 1 manufacturer of Wall Putty in the World and the third largest manufacturer of White Cement, globally, with a total white cement capacity of 1.20 MnTPA and wall putty capacity of 1.2MnTPA. JK White Cement is sold across 43 countries around the globe and the Company has a strong international presence with two subsidiaries, JK Cement Works Fujairah FZC and JK White Cement (Africa) Ltd.

JK Cement also manufactures White cement & Grey Cement based Value Added Products like Wall Putty (JKC WallMaxX, JKC SmoothMaxX & JKC ShieldMaxX), Coarse Putty (JKC LevelMaxX & JKC LevelMaxX Plus), Gypsum Plaster (JKC GypsoMaxX & JKC PlastoMaxX), Tile Adhesive & Grout (JKC TileMaxX), Small Crack Repairing Product (JKC RepairMaxX), Wood Finishes (Wood Amore).

The Company's manufacturing plants have modern equipment like Fuzzy Logic, QCX & other computer based process controls. The use of high-purity raw materials and quality testing at each stage of the cement manufacturing process, uphold its quality standards, help to maintain the critical parameters of its content to ensure product quality.

JK Cement's integrated management systems - ISO 9001, ISO 14001, ISO 45001 and ISO 50001 are certified by Lloyd's Register Quality Assurance (LRQA), UK and the SA 8000 Management System is certified by RINA, Italy. All these facilities put together, ensure consistency in quality & performance with our corporate song "Hum Banayein Kal".

The Company's laboratory is also accredited by National Accreditation Board for Testing and calibration Laboratories (NABL) - the first for any Indian Cement Plant. JK Cement Ltd. is also a Member of Indian Green Building Council (IGBC).

JK Cement is a pioneer in felicitating outstanding contributions of architects. The brainchild of Late Mr. Yadupati Singhania, Former Managing Director, JK Cement Ltd., Architect of the Year Awards (AYA) was instituted in 1990 to inspire the professionals to strive towards further raising the bar in architecture standards of the Country. JK AYA since then has lived up to its legacy of awarding excellence every year & has helped pave the way for a better tomorrow in design which is continuing under leadership of Dr. Raghavpat Singhania, MD, Mr. Madhavkrishna Singhania, CEO of JK Cement.

A REPORT ON JURY MEETING OF 31ST JK AYA

The jury meeting for 31st JK Architect of the Year Awards has been rounded off successfully at Lucknow, Uttar Pradesh on 25th & 26th March 2022.

Total 266 entries were there of this 31st JK AYA for evaluation. Jury members from various parts of India & abroad were invited as per SOP specified under Code of Participation of JK AYA. Accordingly, jury members from various regions of India i.e North, South, East, West, Central & focused states (Uttar Pradesh, Bihar & Jharkhand) were invited along with from the foreign countries i.e Sri Lanka, Tanzania & Mauritius. Total 10 jury members were there & supported us in examining the entries & selecting the winning entries under various categories for 31st JK AYA.

The schedule of activities for Jury meeting was divided into two days. Day 1 was designated as Evaluation day & Day 2 as Finalization & Announcement of Award Winners. The day 1 was started with a detailed presentation by Administrator- JK AYA describing the significance of JK AYA & the SOP of evaluation in front of the jury members. Subsequently, jury members were requested to working on the evaluation on all the entries & submitting their recommendation on the same. Once the evaluation sheet was received from all the jury members at the evening of Day 1, a compilation of all the evaluation reports was done by the Award Secretariats under jurisdiction of Administrator- JK AYA. After compilation of all the evaluation reports of respective jury members, a single pager report was prepared named by Coarse Selection Report. The report was kept sealed in envelope for discussion on Day 2.

In the Day 2, the coarse selection report was opened from the envelope & circulated the same with each jury members. The discussion started between the jury members for finalization of the winning entries. Administrator of JK AYA & Award Secretariats felicitated the jury members in terms of voting wherever required for finalization of the winners. After a deliberative session, 12 winners were finalized & Winner for Architect of the Year Award for Indian Category was remain unselected by the jury members based on capability of the available entries. At the end of the jury meeting, Administrator- JK AYA greeted the jury members & expressed the sincere thanks for providing their support in selecting the winners. At the evening of the Day 2, winner announcement function was held under presence of various Architects, senior Govt. Officials, delegates of various Institutions from Lucknow. Name of the winners were announced & Administrator-JK AYA delivered the vote of thanks at the end of the function.

It was a pleasure for us to receive positive feedback from the jury members & participants, in terms of organizing this event with excellence since last 31 years.

Once again, a tribute to the jury members on behalf of Dr. Raghavpat Singhania, Managing Director and Chairman (JK AYA), in anticipating your support in judging the winners for 31st JK AYA.

Mr. Rana Pratap Singh
Administrator (JK AYA)

Jury Members during Jury Meeting.


WINNERS ANNOUNCEMENT FUNCT.
26th MARCH, LUCKNOW


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WINNERS ANNOUNCEMENT FUNCTION
26th MARCH, LUCKNOW


JURY MEETING

JURY PROFILES

Ar. Jayantha Perera is from Sri Lanka. He has completed his undergraduate and post graduate education in Architecture at the University of Moratuwa Sri Lanka. On completion of his academic carrier he was elected as a corporate member of the Sri Lanka Institute of Architects and the Royal Institute of British Architects. At present he is the Principal Architect of his own practice "Architect Jayantha Perera". He is a founder Director of the SRI LANKA GREEN BUILDING COUNCIL. He also serves as the President Elect of the CHAMBER OF CONSTRUCTION INDUSTRY SRI LANKA. He is in panel of jury board of various international level architectural competition.

Ar. Divesh Guttee is from Mauritius. He is graduated from University of Cape Town as an Architect in 2008, and as an Urban Designer in 2014. He works at Rethink Studio, and has experience in a wide range of projects in Architecture and Urban Design both in Cape Town and Mauritius. He is the current President of the Mauritius Association of Architects.

Ar. David Kibebe, is from Tanzania. He has completed his graduation in Architecture in the year of 2005. He is currently working with Epitome Architect Ltd as Director. Apart from this, he is currently associated as President of East Africa Institute of Architects (EAIA) & Architectural Association of Tanzania (AAT). His areas of expertise are in Architectural Design, Construction Monitoring/ Works supervision, Material specifications, Project Management & Contract Administration. He used to Play chess in leisure times.

Dr. Ar. Vinay Prakash Shrivastava is from Central India i.e Bhopal. He has completed Bachelor in Architecture from National Institute of Technology, Raipur, Masters in Urban Development and Planning from MANIT, Bhopal, Ph.D. in Smart Cities from MANIT, Bhopal. He is the founder of Vastu Vista. His expertise is on Healthcare Design & Smart City.

Ar. Brij Panjwani is from Dehradun, Uttrakhand. He is the founder of North India's most renowned Architectural firm, 'Panjwani Architects' based at Dehradun in Uttarakhand. He did his schooling from St. Gabriel's Academy, Roorkee and is a Gold Medalist Architecture Graduate from University of Roorkee, presently IIT, Roorkee in the year 1981. He is presently working on a technical reference book on Healthcare Buildings and is active in various technical forums.

Ar. Ranjib Baruah is from Norther-East part of India i.e Guwahati. He has completed Bachelor of Arch from M. S. University, Baroda, 1st Class with Distinction. He is Managing Partner of "Designers Plenum". Founder member of Heritage Conservation Society of Assam (HeCSA).

Ar. Rakesh Ranjan Raje is from East India i.e Bihar. He completed his Bachelor in Architect FROM V.R.C.E, Nagpur University in 1984. He is an External Jury Member to B.I.T., Mesra & N.I.T., Patna. He has 38 Years of Architectural Experience in Designing and Planning of various types of Buildings with Special Emphasis on Parameters of Environment Friendly, Energy Efficient, Cost Effective and with Local and Regional Emotional Value in Design. He is the director of SMRITI ARCHITECT PVT. LTD.

Ar. Lalichan Zacharias is from Kerala, India. He has completed his graduation in Architecture from College of Engineering, Trivandrum. He is Chief Architect of Lalichan Zacharias atelier, Architects and Associates. Currently he is serving as the IIA National Council Member and Chief Editor JIIA, the National Journal of the Indian Institute of Architects.

Ar. T D Gadgil is from Sangli, Maharashtra. He is Graduated from M S University of Baroda, securing half a dozen prizes including 2 Gold Medals. Worked with Ar. Charles Correa on prestigious projects, such as Kanchanjunga Apartment Mumbai, Goa Kala Academy, Bharat Bhavan Bhopal and so forth. It is a body of work which has over a period of almost four decades, evolved into a holistic philosophy based on passive energy architecture, addressing a spectrum of issues. His work was appreciated by Ar. Correa. Ar. Gadgil is also into academics and held posts of Prof Design Chair and Adjunct Professor. He has Professional experience of more than 45 years and Academic experience of 35 years.

Ar. Rajiv Kumar Dwivedi is from Agra, Uttar Pradesh. He has completed B. Arch from University of Lucknow in 1986. He served as President of UP Architects Association twice as of now. He has also assisted Govt. of U.P. through Awas Bandu in formulation of policies and strategies pertaining to the physical development of the state particularly in urban areas. Presently he deeply associated with the amendment in Architects Act 1972. He has written a book in HINDI for the awareness of Architecture and skill development.

Ar. Rajat Kant (Professional Advisor 31st JK AYA) Ar. Rajat Kant is an architect and has a master's in Urban Design from School of Planning and Architecture, New Delhi, India and another master's degree in Housing Environments from University of Illinois, Urbana Champaign U.S.A. He practices out of Lucknow and has interest in morphology of his city about which he writes all over. Apart from practice, he teaches across many schools of architecture and design with a keen focus on qualitative understanding of built environments. Cultural production of spaces is a major exploration which he is still trying to understand. In his spare time likes to watch people and experiment with fountain pen inks. His favorite being Yama Budo from Iroshizuko.

Prof. Radhika Nagpal has completed her master degree in Urban and Rural Planning from DCRUST University, Sonipat. She is currently working with Gateway College of Architecture & Design, Sonipat as Head of Department (Architecture) & having more than 33 years' rich experience as an academician and Freelance architect providing consultation to Architectural practices. Apart from this she has also provided consultation in wide range of projects like Educational institution, Hotels, Residence, Housing, Commercial establish.

GREEN ARCHITECTURE AWARD
AR. PANKAJ BHAGWATKAR (PUNE)

31st Architect of the Year Awards JK AYA

The Earthy Flavour
Bus stand road, Dist-Satara,Maharashtra

BUILT-UP AREA: 450.00 SQ.MT
COST OF PROJECT: ₹ 11,25,000/-

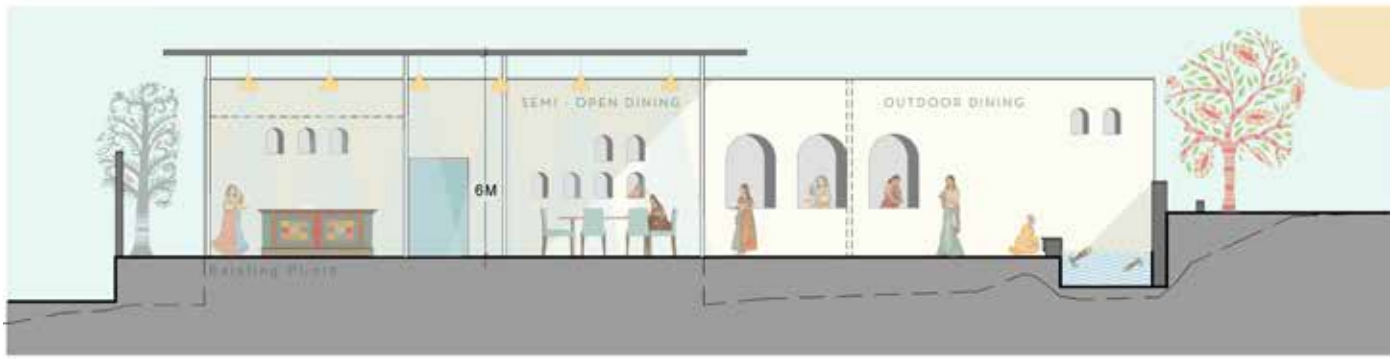
REDUCE, REUSE AND RECYCLE
'Sustainability' is a finer phase when it comes to achieve the architectural goals, both aesthetically & functionally.

The Pre-existing has value and we spend lot of time and effort to look at it carefully. Over the time we approached the site with fresh eyes, attention and precision to understand the values and lacks, to see how we can change the situation while respecting of what is already there.

The structure is lightly touched to the earth, where the surrounding natural landscape is kept untouched and other plantation is so planned that eventually it will be rooted back into the nature with a feeling of belongingness.

The overall journey was fun and challenging in terms of utilising minimum resources, reusing & recycling the existing elements. We have tried to design this project by retaining the existence of the procured elements by just reframing them in different moulds and respecting the significance of Reduce, Recycle & Reuse.

1. Use of existing plinth:
As the site had a dilapidated structure, we have restored the same plinth area to build the restaurant. This helped to keep the flora, fauna undisturbed for any unnecessary interventions.



Section 01

0 1M 3M 6M

Section 02

0 1M 3M 6M

2. Site Topography:
The prevailing site topography was maintained throughout .The levels were derived keeping in mind the existing slope and carved out spaces accordingly.

3. Material palette:
The bricks from the existing structure were carefully retained and were designed as feature walls keeping their worn texture & colour. The fragmented bricks were used as filling where necessary. The procured stones were also used to construct the retaining walls.

4. Recycling the existing material:
The roofing tiles of the existing structure were reused as breathing walls on the west side. They were stacked to cast shadows keeping the walls cooler by cutting the glare from that side and at the same time allowed a free ventilation throughout. The doors & windows were refurbished by colouring and polishing.

5. Natural ventilation:
To keep the air moving, turbo ventilators are placed in the kitchen. The connecting courtyard aids the natural air flow crafting a pleasant scenario.

6. Existing Trees:
The landscape in the site defines a combination of the existing trees and planting few locally borne species that are very much vernacular to the place. We have tried to preserve their existence. Every space sits outside as much and as well it is inside.

7. Labour resources:
The constructing team was locally residing and were hired within 5kms radius from the site location.

8. Water body:
The water body was designed on the existing topography besides the courtyard which helped to cool down the temperature, keeping the micro climate stable.

9. Rainwater harvesting:
We have recharged the bore well with the rainwater to enhance the ground water table, which eventually can cater the users for any water scarcity conditions.

10. Bio Gas plant:
Being an eatery space, there is quite a chance of food wastage. So, nevertheless, we executed a bio gas plant with the leftover food and the wet vegetable garbage.

COMMENDATION AWARDS
PRIVATE RESIDENCE
AR. MANJUNATH C.N. (BANGALORE)

31st Architect of the Year Awards JK AYA

Le Tranquil " – Pondicherry.

"Context acts a catalyst in Architecture, it brings new dynamics to design to create more sensible spaces."

"It's all about finding the calm in the chaos."

Located on the narrow streets of Pondicherry, the North facing site could be termed as a unique architectural typology. The context is a neighborhood composed of dense dwelling units which are built to edges with two to three stories high as any typical structure in Indian cities. It is designed for a couple with three kids and the home is a combination of public and private spaces designed to cater to the needs of the family. Client requirement was to build a home that would represent them for the new generation.

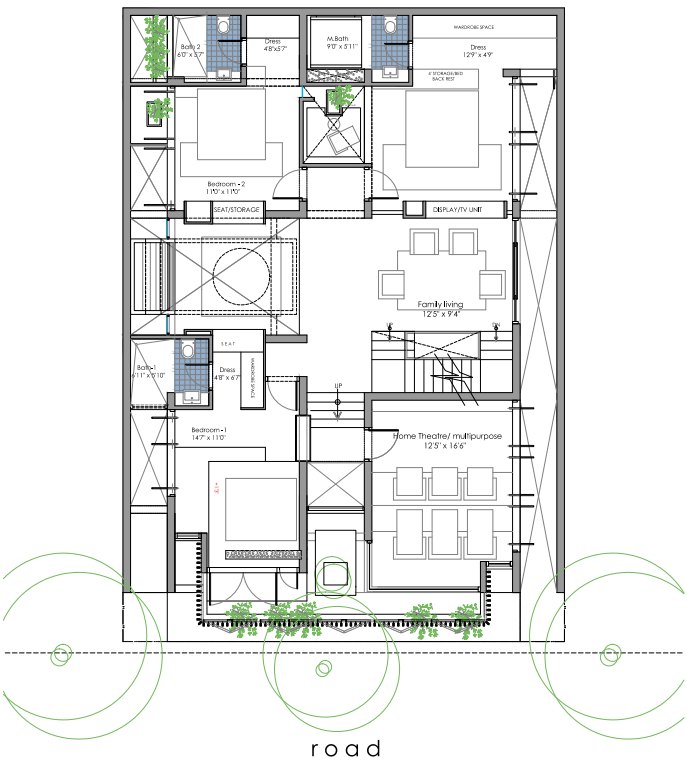
LE TRANQUIL explores the idea of a modern minimalist architecture adopting the principles of tropical architecture and design. It is designed as a well thought architectural insert between the existing structures. The main aim is to create well connected spaces between inside and outside where both built space and landscape complement each other and bring a unique kind of experience within. The spaces are oriented in such a way that one can enjoy the views that are created and framed by different design features. Apart from this, the design creates an interesting play of natural light to further enhance the experience for the occupants. This home accommodates a water body and a platform that forms a base for a tree which is the focal point. The courtyard creates interesting views from different parts of the home while also helping in the circulation of air within the home.

The interior of the house is derived through the client lifestyle. The aim was to create minimalistic interiors with a great amount of detailing by using different materials. White and concrete are used as base colors, which contrast and complement each other. Black with white grains marble is used as main flooring along with grey vitrified tiles and timber flooring. Timber is used as interior finishes to complement the white and concrete surfaces. Another interesting feature in this home are the transforming spaces which are achieved by the sliding, folding members that adorn the façade on the upper levels. It is possible to open them up to make the space an extension towards the exterior.

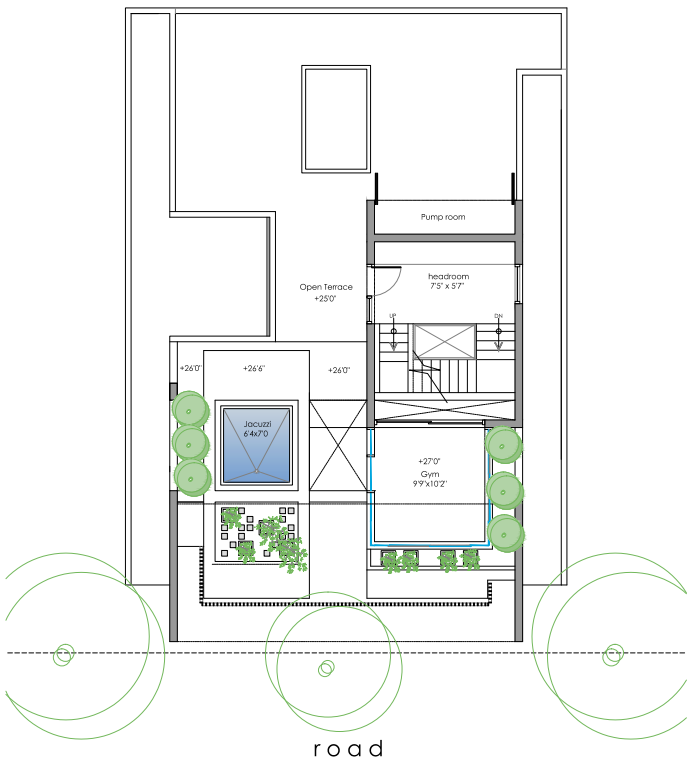
A casual seating towards formal living- with a row of timber perforated shutters pivoted to the concrete cube,provides privacy while it creates a lot of drama for your eyes. This concrete cube with timber inlay forms a frame along the circulation to frame a beautiful piece of art. Water body and

Elevation

Elevation

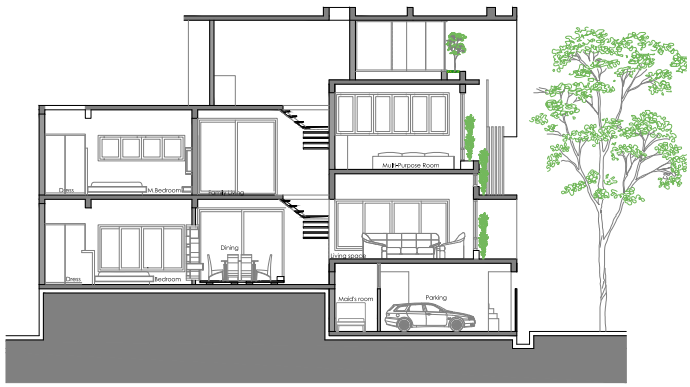


FIRST FLOOR PLAN



SECOND FLOOR PLAN

Section



Section

the platform that forms a base for a tree which is the focal point. The courtyard creates interesting views from different parts of the home while also helping in the circulation of air and light within the home.

The playful light during the day & lights balls suspended from skylights at night , both create intriguing & pleasant experiences for the occupants. An elevated platform in dining adds to the elegance of space & the garden across the huge sliding window gives an outdoor dining experience. Concrete steps leading to the living act as a base to the metal staircase with timber which is designed as a sculpture. Living opens into the garden on front as well as side acting as a buffer from noise & heat. The central skylight makes the spaces like a changing canvas of natural light . Courtyards with skylights connect different parts of the home by blurring the lines that separate them. Play of natural light along with the pleasant pink in the bedroom creates the perfect ambiance. The concrete platform of the son's bedroom extends to the garden creating a close connection to nature.

This project could be described as a modern minimalist architecture adopting the principles of tropical architecture and design blurring the lines between indoor & outdoor; Inviting yet providing privacy with exposed concrete compound walls contrasting with timber gates.

COMMENDATION AWARDS
PUBLIC BUILDING
AR. SACHIN RASTOGI (NEW DELHI)

31st Architect of the Year Awards JK AYA

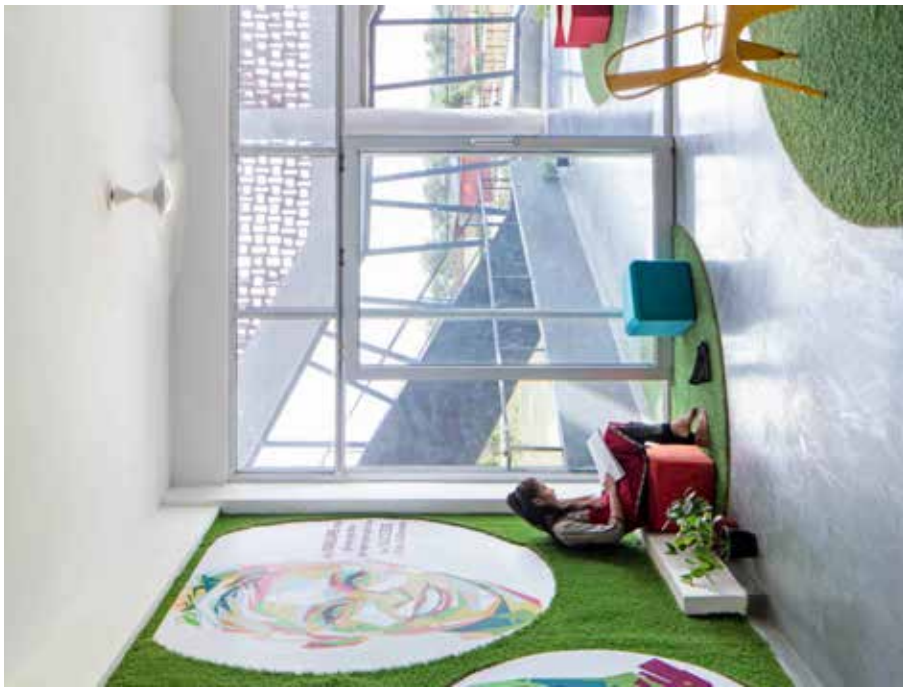
St. Andrews Institute of Technology and Management:
Girls' Hostel Block, Gurugram, Haryana, India

BUILT-UP AREA: 25,000 sq. ft.
COST OF PROJECT: INR 3,75,00,000 | Rs 1500/sqft

DESCRIPTION:
The Girls' Hostel Block in Gurugram explores the intersection of education and sustainability through the lens of the vernacular. The design takes cues from the rural context of the site and unfolds as a series of multidimensional spaces, through the method of adaptive layering .A unique double-skin facade reduces incident direct and diffused radiations on the principal facade by 70%, thus, minimizing heat gain within the habitable spaces behind the block wall. The hostel's design empowers students with freedom of movement within an environment that prioritizes thermal comfort and functionality to become an exemplar of zero energy design.

The design of the building is kept simple while identifying essential elements like the staircases as hubs for social interaction. Transitional and circulation spaces such as bridges open into lounges and pause points to create room for socializing and group study. External staircase along the facade manifests as the fundamental social nucleus that is home to all activities, from large scale celebrations and events to quick informal conversations. It serves as a social hub for interaction and helps in creating an experience while traversing. It also gives an opportunity to look outside from the building and frame views of the sky and outdoors from different angles and perspectives. The landscape design enriches the space by bringing the greenery inside to serve not only aesthetic but also functional purposes. The shaded courtyard hosts a diverse variety of plant species which require a lesser exposure to sun.

DETAILS OF CONSTRUCTION MATERIALS:
The building's materialization in concrete and brickwork binds the different floors together. The columns are round in shape to enhance visual appearance as well as physicality. Moreover, instead of employing singular columns, the sheer mass is broken down into three columns in a tripod-like configuration to provide better structural stability as a vertical support. The pergola on the roof is designed using cement board and steel beams to achieve lightweight construction and optimum design quality.



The Girls' Hostel building is an exemplar of sustainability through its energy efficient design. The double-skin facade acts as thermal mass, reducing the incident direct and diffused radiations by 70% on the principal façade, thus, minimizing heat gain within the habitable spaces behind the block wall. This further reduced the mechanical cooling loads by 35%, a marked increment from the ECBC (Energy Conservation Building Code) base case of public buildings.

SPECIAL FEATURES:

The parametric screen takes cues from the previously developed façade that spanned the adjacent boys' hostel within the institute. The Boys' Hostel Block's façade was designed as an envelope in which the rotational angles of the brick were calculated in order to block diffused and direct radiation. However, it became evident that the depth of the brick when rotated, was not able to create a deep enclosure to cut off diffused radiation in the required manner. Hence, for the girls' hostel, the exterior façade screen uses hollow pigmented concrete blocks to resemble the colour of the red brick. The blocks have been successful in addressing three concerns. Not only do they provide adequate thermal mass to absorb the heat, but with a depth of eight inches, the direct radiation has to penetrate through several layers within the block and gets reflected on different surfaces multiple times before entering the interiors reducing glare. In addition, since the block is penetrable, the air volume passing through this mass loses its heat through compression on the basis of Bernoulli's principle. The blocks are also slightly rotated at a specific angle based on the insulation analysis with respect to solar heat gain.

COMMENDATION AWARDS
GROUP HOUSING
AR. V.S. VIGNESWAR (CHENNAI)

31st Architect of the Year Awards JK AYA

Radiance IRIS, Chennai

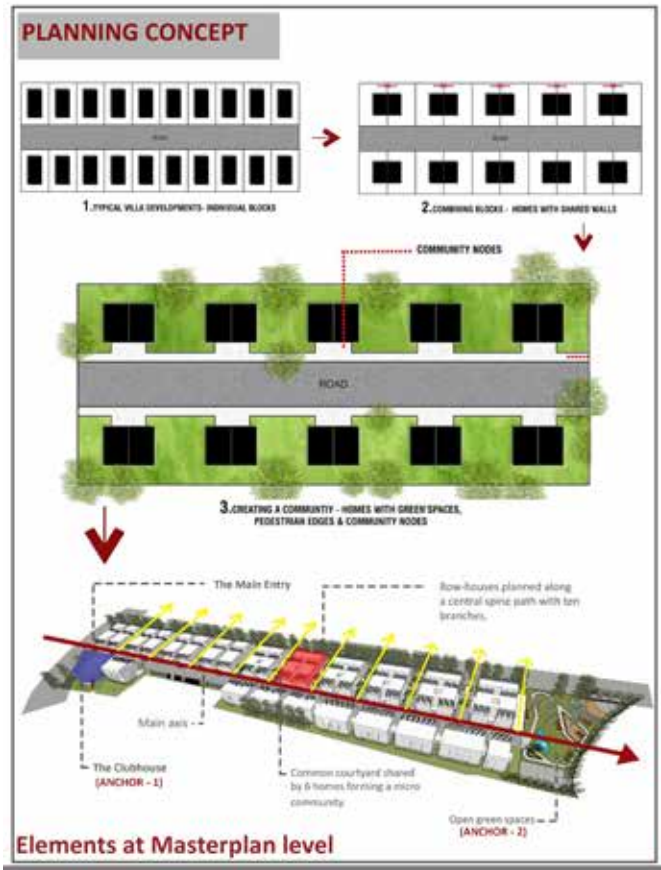
TYPE: Community Housing Development
LOCATION: Yelahanka, Bangalore
BUILT-UP AREA: 14,930 sq m / 1,60,715 sq ft
CLIENT: Radiance Realty Developers India Limited
PROJECT COMPLETION: January 2020 Project
COST: ₹2050/- per Sq Ft or INR 33.82 Crore

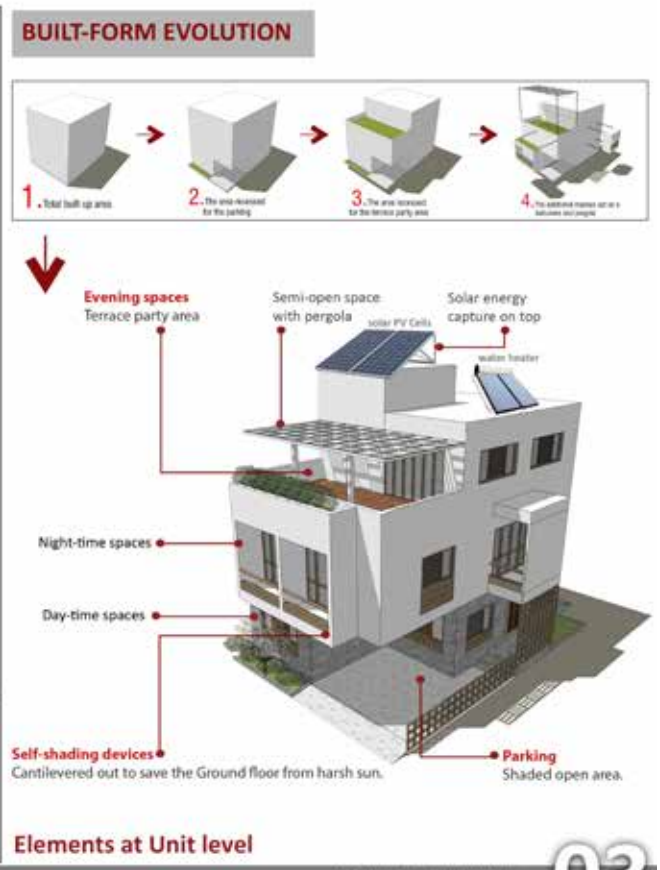
INSPIRATION - Mass Housing is the need of the hour in the World's fastest growing city, Bengaluru. Within an urban concrete-jungle, Iris seeks to be a green refuge from the ever-growing pressures of development. We had to achieve this within the housing market pressures to make the project affordable. Iris focusses on a community centric-design incorporating natural vegetation and social spaces which simultaneously achieves the major challenge of high built-up area and low selling price.

CLIENT BRIEF - The Developer approached us with an expensive parcel of Land located in a well-developed residential neighbourhood in close proximity to several IT Parks. The brief was to achieve a Financially Successful Residential Housing project with the Maximum possible built-up area in the lowest possible cost. Detailed market research suggested that Affordable Villa Housing will be the Best possible product for the micro-market.

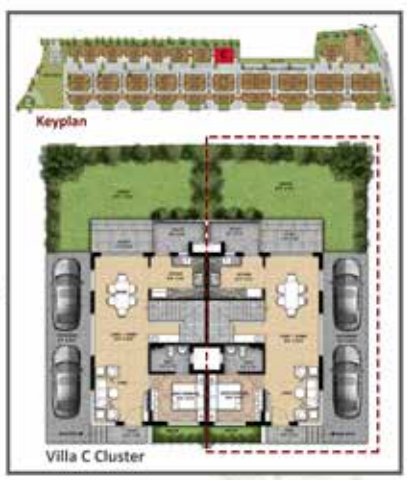
ARCHITECTS CHALLENGE - Negotiating with the real-estate developer and achieving a good community based green-design was the hardest part. Developers focus on maximum profit whereas the Architect has to achieve this by designing the best possible combination of units which offers the best possible quality of life to the users. The weight of the success or failure of the project lies on the shoulders of the designers and we are glad to have succeeded.

RESEARCH ABSTRACT - Detailed research was carried out to in the city to make the design commercially successful. The research focussed on what makes a successful home. Detailed studies and simulations were done to understand how to maximise natural light and ventilation inside each home. Land usage was critical for achieving the high built area. Existing trees were mapped and the buildings were planned around them to preserve the native vegetation.





RADIANCE IRIS CONCEPT J.K.CEMENTS -31ST AYA AWARDS GH - GROUP HOUSING 03



RADIANCE IRIS UNIT PLANS - VILLA C J.K.CEMENTS -31ST AYA AWARDS GH - GROUP HOUSING 06

DESIGN DESCRIPTION - Iris was built on a large 4 Acre site with many mature trees. 90 percent of the existing trees on site were preserved through careful planning. The project achieved a built up area of 1,60,715 sq ft to be financially viable. It has 77 row-houses planned around shared courtyards. There are 6 types of units ranging from 160 sq-m to 250 sq-m. A semi-open 15,844 sq ft community clubhouse was planned at the entrance with a steel parasol providing shaded terraces for recreation.

Iris is a series of row-houses planned along a central spine path with ten branches. Each branch is a common courtyard shared by 6 homes forming a micro community. Each home has a private garden with mature trees. Services are clubbed along the shared walls to minimise costs and hide it from view. The community club-house sits at the head of the spine near the road. The tail-end is a large open park with an amphitheatre and play areas.

MATERIAL SPECIFICATIONS - Iris was a low-cost project. Hence economy of construction was essential. Conventional earthquake resistant R.C.C framed structure were infilled with light-weight autoclaved blocks. The Ground floor was recessed and clad with quarry waste slate stone to provide a tactile feel. The first floor cantilevers as a white mass shading the ground floor. The second floor has a terrace steel-pergola providing a light feel. Each floor expresses itself amongst the built composition.

SUCCESS - Radiance Iris has the capacity to transform the lives of the families who chose to call it home. It has emerged as a financially successful model of social housing development through sensitive and sensible design. Clusters of row-houses interspersed with social spaces and shared facilities forms the project. Basic aspects like natural light, ventilation, ease of access and service have been thoughtfully resolved along with the pressure of density. The project is a successful case-study in the Indian housing sector and has WON International recognition for the same.

COMMENDATION AWARDS
ADAPTIVE RE-USE
AR. SIDDHARTH BATHLA (NOIDA)

Red Fort Centre
Noida

Red Fort Centre is a new gateway for visitors to reexperience the events and the fortress's heritage built fabric. The visitor centre has been designed and developed by adaptively reusing one of the defunct structures of the British military barracks at the world heritage site of the Red Fort. The colonial government built the military barracks after the first war of Independence of 1857. The Britishers had destroyed significant structures within the Red Fort to build the barracks with the material from the ruins. The barracks are defunct or partially used since independence; however, only withering under the deep layers of plaster, paint, and lack of ethical conservational measures.

Once the multiple layers of plaster were removed from the surfaces of the barrack, many intricately carved stones were found embedded in the masonry. These pieces are living proof that the barracks were built using the ruins of the original Mughal buildings that once existed in the Red Fort's premises. Therefore, the contemporary design strategy of the visitor centre lives up to the fortress's multi layered history without being os tensive or subdued, making the spaces breathable.

The project's design strategy pursues restoration and conservation efforts to replicate the ancient materiality deciphered from the fort's in depth factual research. The contemporary design interventions have translated the existing buildings' expression into a present progressive language.

Visual language, scenography, customised lighting design, furniture design, installations to the finest of details critically preserve the pariahs of our yesterday and activate the dormant spatial experiences. The sediment layers of stones, the contemporary colour tones and textures surrender to their surroundings. The flashes of red oxide act as highlights. The grey tones in furniture, design elements, and products in the historic brick and stone muted ruggedness make the experiential design embody transparency. The scenography shapes and emulsifies with the antiquated background. It tells stories to an amiable wanderer or invites a stranger searching for a welcoming ne w home to rest. The clarity of the frosted or clear glass in corridors and the brilliance of the natural daylight accentuates their crystalline geometries.

EMPOWERING LOCAL EXPERTISE:
The local material combination included lime, surkhi (powdered bricks), stalls of jute, bail water and Badarpur sand. The colour of lime surkhi matching the ancient texture has been achieved after a series of combinations. It will age with the changing weather to provide a robust, archaic yet beautiful contemporary appearance . The customised bricks measuring

300x150x75 mm (1.5 times the regular brick size) match the existing dimension of the bricks used within the barrack. In the absence of a traditional kiln, the raw material was procured from Meerut and transported to Morada bad to burn handmade bricks in an electric kiln. Red Agra Sandstone procured from the actual Dholpur mines that provided the stone for Red Fort adorns the flooring. The handmade concrete pendant lights in the corridors have a form attained by juxtaposing t he heritage and modern material the barrack's refurbishment by replacing existing m.s. Girders and the process of replenishing initially used wood with ew seasoned Teak and Sagwan wood aimed to support the centre to play a host and the first stop to an exponentially growing tourist footfall at Red Fort (precisely, 1122 visitors per hour, 10,000 to 12,000 ponentially growing tourist footfall at Red Fort (precisely, 1122 visitors per hour, 10,000 to 12,000 visitors per day).visitors per day).

RESPECTING THE MONUMENTAL HERITAGE:

partitions, furniture, flooring, false ceiling and services at a distance are placed like an offs et from the surfaces. Grazers within the skirting on the edge of the floor accentuate the restored exposed stone walls and protect the materiality from getting soiled. The visitors observe the exhibits from a distance and not touch the artefacts and object s. Ushers guide the visitants in small groups, and the markings on the floor will allow them to practice social distancing.

"Making an individual visible amongst everybody and everybody visible in oneself", the Infinity room with mirrors on all surfaces a nd customised lighting design provides a kaleidoscopic experience on a larger scale. This space in mirrors with etched Ashok Chakras conjures a backlit effect on all six surfaces. The diorama installation, glass installations and magnetic boards on a signi ficant scale empirically herald the visitors and children to retreat with the reflective perspectives. The various exhibits, experiences, and informative zones at the centre indulge the visitors in incidents that reflect a shared feeling of pride and patri otism, elevating their secular emotions.

ADVANCED AMENITIES:

On the ground floor known as Daastan, the institution offers social and recreational spaces with the only cafeteria at the Red Fort, reception and shops, a 360 degree projection theatre and aug mented reality. On the first floor known as Afsana, the Red Fort Story, visitors embark on an interactive journey that underpins the life and culture of the fort and its context in today's India. The digital travelogue commences with immersive illustration s showcasing Shahjahanabad expanding to Delhi city through ages, to celebratory live demonstrations of Red Fort's bazaar area called Chhata Chowk, audio visual representations of Naubat Khana (entrance) and the Hamam (Turkish bath). It further unfolds

sign ificant historical events that shaped the country's political order, the independence movement marking Red Fort as the forever edifice of power.

Projection mapping, holography, LED tv panels and augmented reality room for realistic photography, and grand scale models herald an interactive spectrum of the spaces. 'I pledge to clean India and build a New India", the live band installation is an initiative to indulge the visitors into the more significant nation building goals of India.

The visitors will now reinterpret the Red Fort through the visitor centre, more than just a frame of reference or a photogenic wonder. The immersive experiences engage the visitors of Red Fort and, in extension, the Delhi city to enjoy the cultural richness and admire the Ind ian heritage's ingenuity with open nooks of aesthetically pleasing and highly functional explorations. It distinguishes this monument of national importance as a universal landmark of courage, sapience, knowledge and hands on innovation.

COMMENDATION AWARDS
YOUNG ARCHITECT'S AWARD
AR. AJAY SONAR (NASHIK)

Viveda Wellness Retreat
Beze, Trimbakeshwar.

BUILT-UP AREA: 3900 sq.m.
COST: INR 15,00,00,000 (15 Cr.)

DESCRIPTION OF THE PROJECT:
The site is located near Trimbakeshwar, within the Sahyadri mountain range. Located in a small village called 'Beze', the site is in the vicinity of a number of dams and opens up to serene views of the Sahyadris. This enables a mostly cool, dry and pleasant weather for the region with ample rainfall. This topography has created a unique micro-climate in the village, with temperatures 5 to 6 degrees lesser than the urban areas nearby.

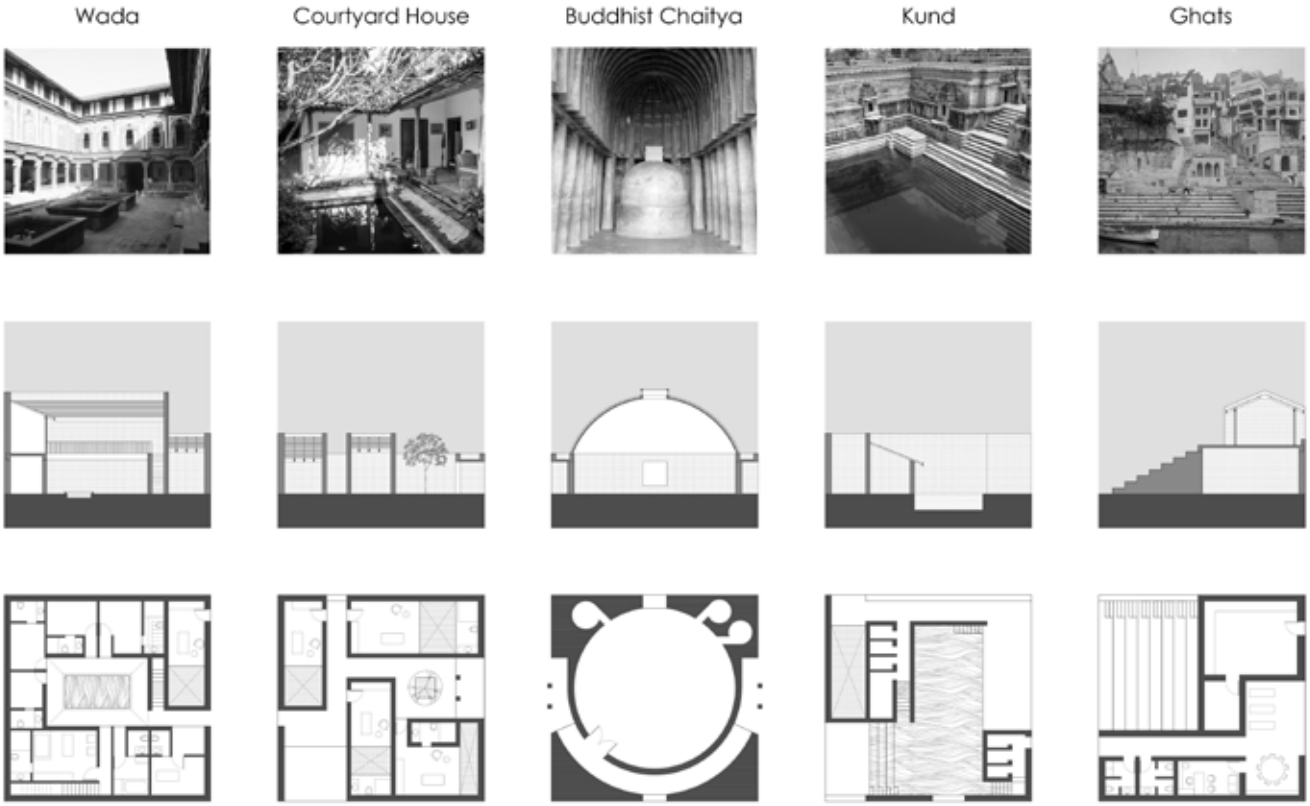
A conscious effort was put into understanding the evolution of a typology followed by dharamshalas, sarai, temple complexes, and Hammams and going back till the great bath in Harappa. Historically, these spaces used to warmly welcome the traveler, provide them with a resting place and food, and also healed them. This typology transformed into a modern-day healing spa and resort which we see today. Reinterpreting the same in modern times, the idea is to create a space that helps one break away from their busy, mundane life and reconnect with nature and the inner self.

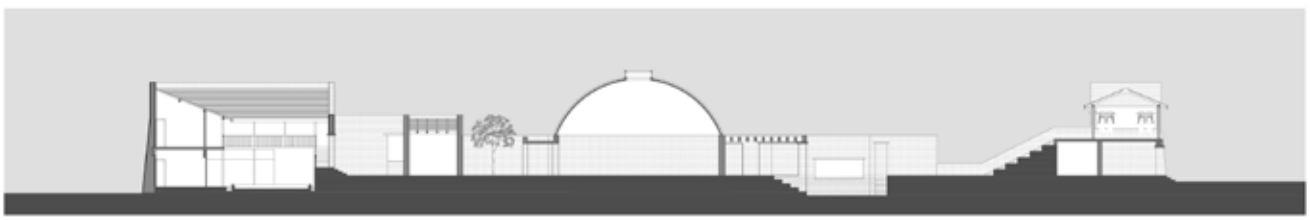
MATERIALS OF CONSTRUCTION AND DETAILS:
We manifested the thought of learning everything from the immediate surroundings –a sensitive lifestyle followed by the villagers, where handcrafting was the primary way of doing things, to materials and technique of construction, all coming from the immediate context. Materials like stone, wood, and traditional Indian clay roof tiles -which are one of the most natural materials- respond well to the local climate and alter the spatial experience of the resort. The varying volumes animated by light, shadow and the texture of the materials, evoke strong emotions and deep experiential memories.

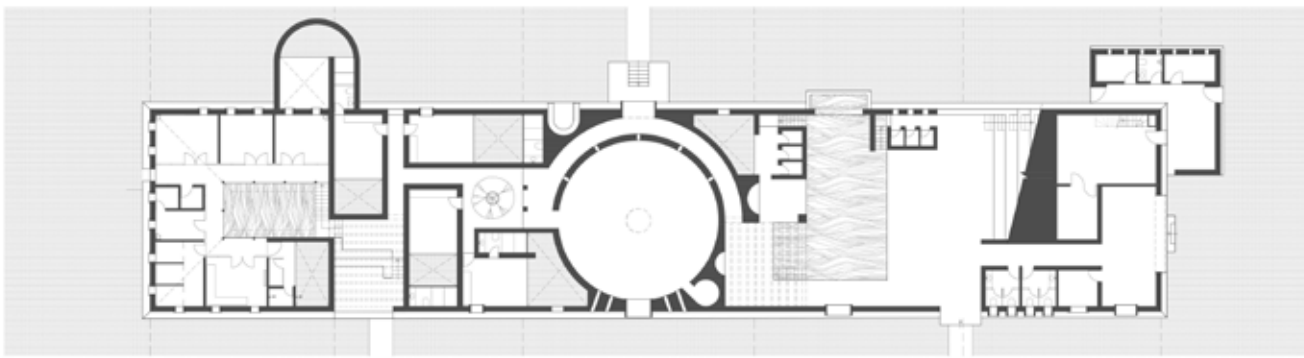
SPECIAL FEATURES:
- Revival of local art and craft in the region like hand-dressed stone masonry, wooden post and beam structures with traditional joineries and pottery for creating traditional Indian roof tiles.
- Use of local materials procured within 50 kms of the site.
- The combination f built and unbuilt spaces with courtyards and skylights makes the built forms porous and breathable.
- The project is largely influenced by forts in the region which have a homogeneous character of stone and a symbiotic relationship with the immediate landscape.

VIVEDA WELLNESS RETREAT
Viveda Wellness Retreat is set amidst 50 Acres of unspoiled natural terrain and grounded in Ayurveda, Yoga and Vedanta combined with traditional therapies which enhance and augment the original. The central theme of the sanctuary is to live the inner self journey from the mundane to the spiritual, by embracing nature in every sense of existence. The challenge in designing the healing space was to ensure the continuity of some of the traditional values and cultural elements.

Amenities Building Evolution







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We manifested the thought of learning everything from the immediate surroundings –a sensitive lifestyle followed by the villagers, where handcrafting was the primary way of doing things, to materials and technique of construction, all coming from the immediate context. Materials like stone, wood, and traditional Indian clay roof tiles -which are one of the most natural materials- respond well to the local climate and alter the spatial experience of the resort. The varying volumes animated by light, shadow and the texture of the materials, evoke strong emotions and deep experiential memories.

By collaborating with local masons and craftsmen, we attempted to create something prehistoric, in harmony with the traditional and ancient practice of Ayurveda and naturopathy, existing since centuries. The focus was on creating an experience which takes you away from the present hustle bustle of urban life to the past to heal yourself. The architecture portrays a symbiotic relationship between cultural elements and the natural surroundings. The form and volume of every space is evolved from an in-depth understanding of the respective functions creating a heterogeneously homogenous space which grows organically throughout the site, merging with the surrounding landscape.

Green Status pointers for Viveda Wellness Retreat:

1. Stone has a high thermal mass and absorbs the heat from solar radiation. Stone being the main material of construction, the temperatures in the interiors are lower and a comfortable environment is maintained throughout the year.
2. Green pockets have planned throughout the project where Trees and vegetation lower surface and air temperatures by providing shade and through evapotranspiration. These pockets also improve the air quality and lower greenhouse gas emissions.
3. The major building materials are wood and stone which are both procured locally, within a radius of 50 km, which accounts for very low embodied energy of the materials.
4. Clay pot tiles for roofing have been used, made by a local potter within 25 to 30 kms of the site with local soil, responding well to the local climate. These tiles are made in a small home kiln and were baked less resulting in lesser carbon footprint.
5. Rootzone technology is used for the treatment of treatment of sewage, wastewater, sludge, mud, and oil. This biological treatment of waste water takes place in a soil volume, which is penetrated by roots, as it is a natural process, there is no energy required and there is zero carbon emission.
6. The building largely relies on natural light and ventilation.
7. The planning of the project consists of circular forms which do not restrict the flow of the wind and there is unobstructed cross-ventilation.
8. Minimal use of concrete, steel and sand has been done by avoiding large span slabs, RCC columns and beams and plaster for walls and slabs. This reduces the carbon footprint.
9. Use of paint and synthetic wooden polish has been completely avoided. Hence there are no VOCs (Volatile organic compounds).
10. Indigenous and native species have been planted throughout the site to contribute to the larger ecology of the context.
11. Water bodies are also made in local basalt stone and minimal use of ceramic tiles to reduce the embodied energy.
12. Use of hardscape in the outdoor areas is completely avoided and pathways are made with stone dust to make the ground impermeable.

COMMENDATION AWARDS
ARCHITECTURE STUDENT OF THE YEAR
MR. ALAN GEORGE JOSEPH

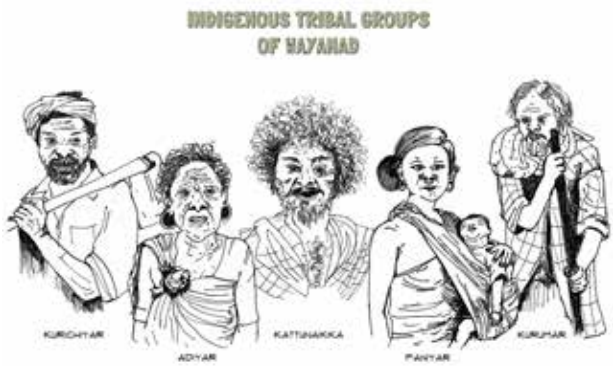
PUNARJEEVAN: Regeneration of Indigenous tribes in Wayanad

The Thesis project started with a deep affection towards the indigenous tribes of Wayanad, Kerala with research questions and architectural inquiries addressing tribal community resilience by empowering their vernacular from getting endangered. The project also envisions the regenerative potentials of architecture for creating a sustainable, ideal ecosystem by using nature as a building material.

Kerala's once-prosperous agrarian civilization had seen a steady metamorphosis over the years, shifting from the production of food crops to cash commodities such as spices and rubber. The situation was exacerbated by the conversion of large-scale rice farms. Kerala has lost more than 70% of its land to rice cultivation in the last 30 years. Several farmers gave up farming owing to a drop in profitability, while others found other means of income, such as international remittances. Kerala's consumerist society is now heavily reliant on its neighbouring states for grains, fruits, and vegetables, among other necessities.

The "Adivasi" -tribal group of Wayanad, who refer to themselves as the 'Ippimala makkal' children of 'Ippi hill' - Banasura peak Wayanad) is one community that urbanized nontribal left their bad influence on. Poverty and illiteracy are the two major reasons that led to the decline of the community. A group of people who have been living, sustaining and celebrating with a lot of values passed on from traditions and in-depth knowledge - skill sets who are currently on the verge of extinction. These groups must be preserved without losing their cultural history and values.

As they strive to fit in with the rest of society, they not only find it difficult to blend in but their values and traditions are also forgotten. They are discriminated against and are under a great deal of stress in their lives. As a result, they find themselves working as unskilled labour on sites and in barren fields.



Thus project uses a participatory design approach to develop community resilience and regeneration in a dying tribal community. Native arts, languages, building methods, and ceremonies saw a comeback, resulting in a new sense of unity and cohesiveness among many tribes. The proposed centre has the potential to be an important tool in the formation of tribal identity. The proposed centre will also envision:

- Development of the community by aiding them with adequate facilities, training, and source of income generation.
- Sustenance of knowledge by bringing up a platform to share their ideas and to implement them. It would help in sustaining their community, increasing their knowledge, and mastering their skill set.

But, acknowledging the fact that different tribal groups have different histories, cultures, and beliefs; it is difficult to bring people together under a common umbrella of a dwelling system. Thus, only a unifying institution system, such as a school, training centre, or a cultural space where they can exhibit their dance and other art forms, can gather people together and save the dying communities from their introverted hamlets.

These tribal groups should be enlightened with the payoffs of their strengths and capabilities to such a degree that can make them proud of their traditions and values. Thus, an awareness centre is needed to motivate and extract them from their heaves of depression and addiction. Only then will their younger generations would stick back to their forest roots and traditions. Hence, saving an entire community from extinction.

Therefore, my role as an architect is to mediate and devise a system through their voices and design a prototype model adaptable to their cultural beliefs which can be built with the participation of the whole community.

ARCHITECTURAL & CONCEPTUAL STRATEGIES:

The thesis intends to create an architectural interface bridging the gap between the tribal groups and the urban society. The space will act as a knowledge hub, a platform to educate and get educated, to share, understand and grow together.

- To examine, encourage and celebrate the traditional knowledge systems with their intricate links to the people, their crafts, and the forest.
- Implementing participatory design approach adapting to the vernacular construction techniques and locally sourced materials conveying a strong sense of ownership and belonging and setting an ideal example of the green-efficient carbon neutral construction system.
- The center will act as an institutional hub with a residential school as core providing exposure to students - adapting to the green school - 'gurukul' education system where they learn through life experiences. They are also made aware of their traditional values and cultural significance along with the formal education system.
- Training centers will be provided for the elderly promoting their handicraft skill sets and knowledge systems.
- The spaces will thus complement the activities of the tribe which in turn would amplify the efficiency of the community.
- To enhance their needs and quality of life by bringing a balance between internal localized traditional culture, economy, and external links.

The 3 main user groups would be, Tribal children - who will be given opportunities for green school - gurukul education system within the forest enabling them to develop respect and understand values carrying forward traditional practices. Tribal adults - who will be given a space for community gathering, knowledge exchange, and vocational skill development which would also act as a source of income generation and add stability in life. N.G.O representatives and government officials - would be provided with spaces to work and collaborate with tribal groups, providing better exposure.

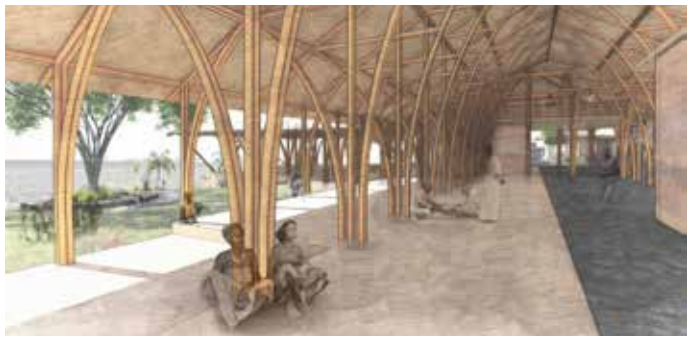
Farming is a key component in achieving self-sufficiency. The Adivasi may be preserved through reviving traditional

cultivation techniques and organic agricultural practices, which emphasize collaboration and teamwork.

Permaculture is characterized as the construction of agricultural ecosystems that are self-sufficient and long-term. Bamboo is readily available, and its harvesting, treatment, and use for construction, handicraft product manufacture, and other uses may all contribute to the development of a self-sufficient society. Using locally obtained bamboo for the building is cost-effective and environmentally friendly, having a minimal carbon impact.

Participatory design entails user participation in design for work practice. This involvement of stakeholders and end-users together allows the design process to be more I open and lends itself to user-centered design innovation since it nurtures a more creative development atmosphere. The approach is focused on processes and procedures of design and is not a design style.

The site is located in the Southern range of Wayanad district abode of the largest number of Adivasi (71.95% of state



Adivasi population), sandwiched between Padri Reserve Forest and Kabani River. It is located deep inside the forest where: 5 main types of tribal groups are present in close proximity of the site. Access from the city is easy as the route provides a way for rear-side entry to Kuruva Island provided by the forest department.The site is adjacent to agricultural paddy fields where irrigation is possible with adequate water resources. Bamboo is available in surplus quantities as the region is proximate to the Kabani River.

ARCHITECTURAL LANGUAGE:

The project framework is characterized by a basic architectural language drawn from Wayanad's indigenous tribal groups' vernacular construction skills. Because the design is based on a participatory approach, community participation is essential for incorporating their practices and employing their knowledge and skillsets. As a result, the program has been divided into numerous modular pieces for simplicity of assembly.

Taking reference from the contextual material palate, the project utilizes locally sourced natural materials such as earth for foundation and enclosure, bamboo for the structural system, and rice straw for thatch roofing.

Passive lighting and ventilation techniques are used welcoming maximum natural light into the interiors and uninterrupted wind flows through the built. Rammed earth walls provide sufficient insulation and control heat gain.

A lightweight thatch roof with broad eaves provides shade and protection from driving in rain. The design strategically brings in skylight through roof opening and releases hot air by stack effect. Solar panels can be installed at ideal locations receiving maximum sunlight to increase energy efficiency.

Characteristic analysis of vernacular patterns and tribal interpretation of spaces enabled to embed a design strategy that is simple and open for user interpretation. Activity mapping from the existing tribal hamlets highlights the importance of verandas and supporting spill over spaces for recreation and social interaction. Veranda spaces are actively used for resting, eating, and discussion. Most of their activities occur in the open ground and courtyard spaces.

The visual connectivity and porosity of spaces allow natural elements to enter the constructed environment. The design was created with minimal border transitions and careful awareness of the ecology of the land while keeping a link to the forest roots. Using prominent features, the building modules are gently positioned along the axial direction of the site. This provides for optimum land efficiency with little changes to the topography of the site. The presence of many entries at various levels of the site emphasizes the site's spatial and functional aspects. This can also be used to regulate privacy levels.

The design concept of 'Synergy' is well explored by incorporating open and continuous spaces with multiple interconnections providing maximum opportunities for interaction. The open planning of spaces allows the user to utilize the space to their free will and own interpretation. Several nodes and transitional courtyard spaces act as gathering areas that accentuate activity generation. The design incorporates maximum views to the paddy field and adjacent surroundings maintaining harmony with the site context. Transparency is maintained with only sufficient buffer provided for efficient functionality and enhancing user experience.

The different programs are categorized into 3 main zones - Public Interface, educational programs and accommodation facilities. The functional areas under the zones include a community hall "Aetukottilu" and a performance area for the tribal community, a green school for children "Inchicolu" and vocational training units for adults, bamboo craft production area and permaculture farm with granary storage units, hostel facility for school children and guest accommodation cottages for external public.

"Aetukottilu"- Community hall is designed with a simple open plinth base respecting the spatial requirements of the tribal user group. The building sits well on site contour with an entrance bridge provided from road level to the first floor. An arched bamboo structural system eliminates the central columns and achieves a larger span.

The N.G.O office block is planned with a very porous and welcoming atmosphere with verandas and a central courtyard area. The integrated amphitheatre seating spaces can be used discussions and cultural performances. Office spaces are internally connected giving maximum functionality and efficiency. Built-in seating spaces are provided along the passage areas.

"Inchcolu" - A school complex is made up of various masses, each of which serves a distinct purpose, such as classrooms, libraries, multifunction halls, offices, student dormitories, 'Anganwadi', and lunch halls. The school's atmosphere is reminiscent of the ancient practice of learning under the trees and might be seen as a modern adaption of the gurukul learning experience. Allows children to perform as they study, supporting the green school education curriculum of learning via actions. The dynamic in-between areas are crucial for multi-functionality and one's relationship to the natural environment. Adapting to natural biomorphic patterns and groupings aided in the creation of beneficial sensory and psychological effects.

Various landscape methods have been implemented with a context-sensitive approach that takes into account the ecology of the site. The runoff water from the slope is directed to the catchment pond via various bio-swales and drain pipes.

The thesis project "Punarieevan" as a whole provides a chance to bring together various tribal groups via active participation and interaction. Various methodologies have been used to investigate the regeneration capacity of permaculture farming and bamboo as a lifeline material. An owner-driven construction handbook is also being produced as a first contribution to the implementation phase, which may be disseminated around the community. The guidebook explains the many stages of construction, as well as the instruments needed, material selection processes, treatment techniques, and joinery details. During the project's building, the handbook can be used as a reference. Once implemented, the region may serve as a model - a catalyst for tribal revitalization and wellbeing.

INDIAN STATES ARCHITECTURE AWARDS
ARCHITECT OF THE YEAR
AR. ALEX JOSEPH (NOIDA)

Nest Inn
Dehradun, Uttarakhand

BUILT-UP AREA: 18,000 sq ft
COST: ₹ 3.5 crores

DESCRIPTION OF PROJECT:
Nestled on the foothills of the Himalayas in the city of Dehradun, a facility for assisted living sits in hypnotic tranquility. The plot is around 4 acres which is surrounded by dense Mango & Litchi orchards and a British Bungalow, dating back to the Colonial Period. The approach was to capitulate to a design solution that would respect the heritage and natural environment of the site. Although the plot was in the middle of an urban landscape, it still had its independent eco-system with orchards. This instilled a sense of safety due to the site's proximity to city-facilities yet enjoying the calming shade of green foliage.

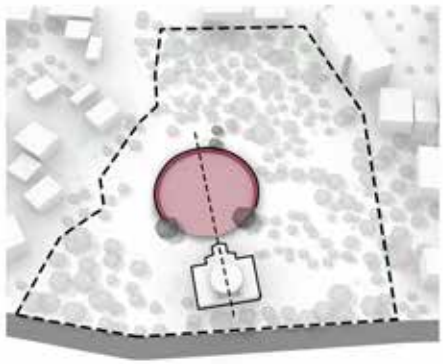
DETAIL OF CONSTRUCTION MATERIALS:
- Terracotta jaleli tiles for Jallie screens in façade
- Steel pipes for V-shaped members
- Exposed brick work in the wall going along the corridor spine
- Earthy color palette and natural and exposed materials used for a soothing effect
- Wooden veneer with spirit polish for all doors.
- Grass pavers used in the landscaped
- Kota Stone for open to sky stage area & hardscaping

SPECIAL FEATURES:
1. Conservation of Heritage Bungalow & Planning Building Footprint without cutting any trees:
There were two necessary aspects of the site that had to be taken into consideration before starting the design. First, the old British Bungalow had to be celebrated instead of merely standing indifferently with the upcoming construction. Second, to obtain clear space for the new structure by cutting trees to an absolute minimum. Favourably, a relatively empty patch of land was located right opposite to the bungalow. This enabled the possibility of the new structure to face the bungalow and share the same line of symmetry. To make things tricky, in the open space, there were still three trees standing in its middle. On deeper look, they appeared to form a triangle. Hence, they were taken as extent points and a circular spine was envisioned having terminal ends at the two laterally standing trees. Thus, the site's flora was entirely retained.

2. Zoning Concept
The circular layout of the whole complex is intended to resonate with the long existent concept of "Circle of Life". It

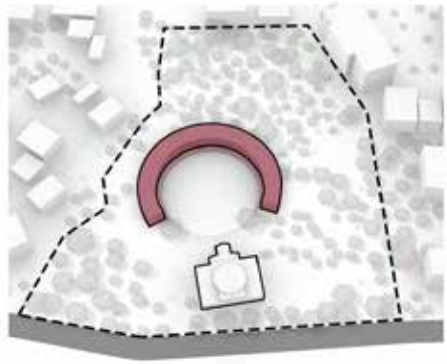
SITE

01 After the site study, it was found that between the dense Mango & Litchi plantation trees, there was some window of open space on which the building could be constructed without cutting any trees.



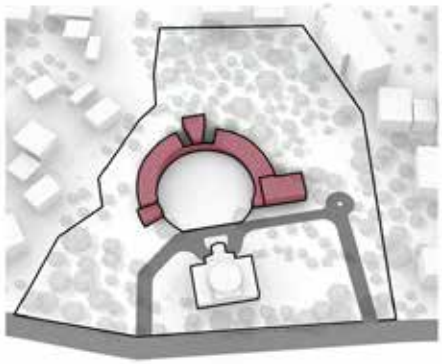
COMMON CORRIDOR

02 The existing colonial style bungalow was retained and turned into an object of focus, in order to conserve the trees which were conflicting with the open space, a **circular spine** for the common corridor was fitted between them.



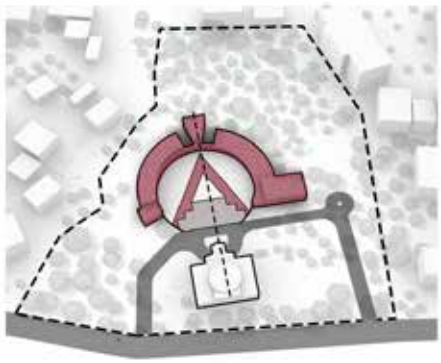
BLOCK LAYOUT

03 A circular block was overlayed around the spine to understand how they were reacting to the site and which trees were intersecting with the building structure.



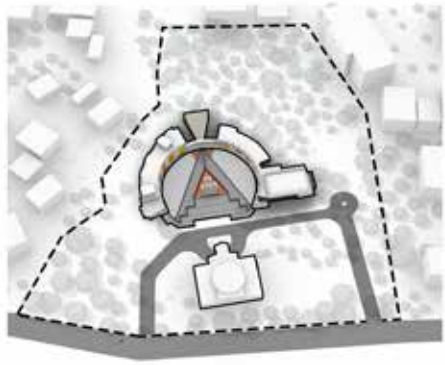
PUNCTURES FOR TREES

04 Necessary **intrusions** and **punctures** were made in the block so that the building layout interlocked with the site instead of consuming its texture and vegetation.



TRIANGULAR LANDSCAPE

05 Two pathways were made which pointed to the opposite direction of the Colonial Bungalow. This directed point was found suitable to locate the **Chapel** as it lay on the **central axis** and **apex** of the facility.



FAÇADE TREATMENT

06 **Façade treatment** was done on the internal faces with steel pipes forming **diamond shapes** and clay tiles used as **jali screen** to create **shadow effect** in the circular corridor. A stage, seating spaces and planters were put in the central courtyard.

SECTION XX
SCALE 1 : 200

SECTION YY
SCALE 1 : 200

consists of bedrooms, meditation hall, dining-kitchen block, and a multipurpose hall. All the spaces are seamlessly merged inside-out through the singly loaded curved corridor that links them all. All the private areas are zoned towards the back of the building, which is opening out into the thick green orchards. At the mid-point of the arc, lies a skewed meditation hall which is placed inside the serenity of the green orchard and aims to help its users revitalize their body and soul by connecting with nature. Towards the other end of the central axis, stands the majestic bungalow as a reminiscent of past glory, with its gabled roof, forming a focal element of the entire campus.

3. Shadow play & Landscaping Concept

The curved corridor with its intermittent façade openings, encloses a central circular courtyard of 40 m diameter. The building façade has perforated clay-tile screens and V-shaped tubular pipe sections, which provide a dramatic shadow effect in the circular corridor behind, naming this entire setup as *'the walk of introspection'*. The central landscape forms a plaza, an open-air theatre, and a stage area, all overlooking the entire space. The contrast of white with earthy tone, bolsters the harmony of the entire building-setting with nature, where the user can sit and tell tales of their youth and vigor, achieving solace in this communion of architecture and repose.

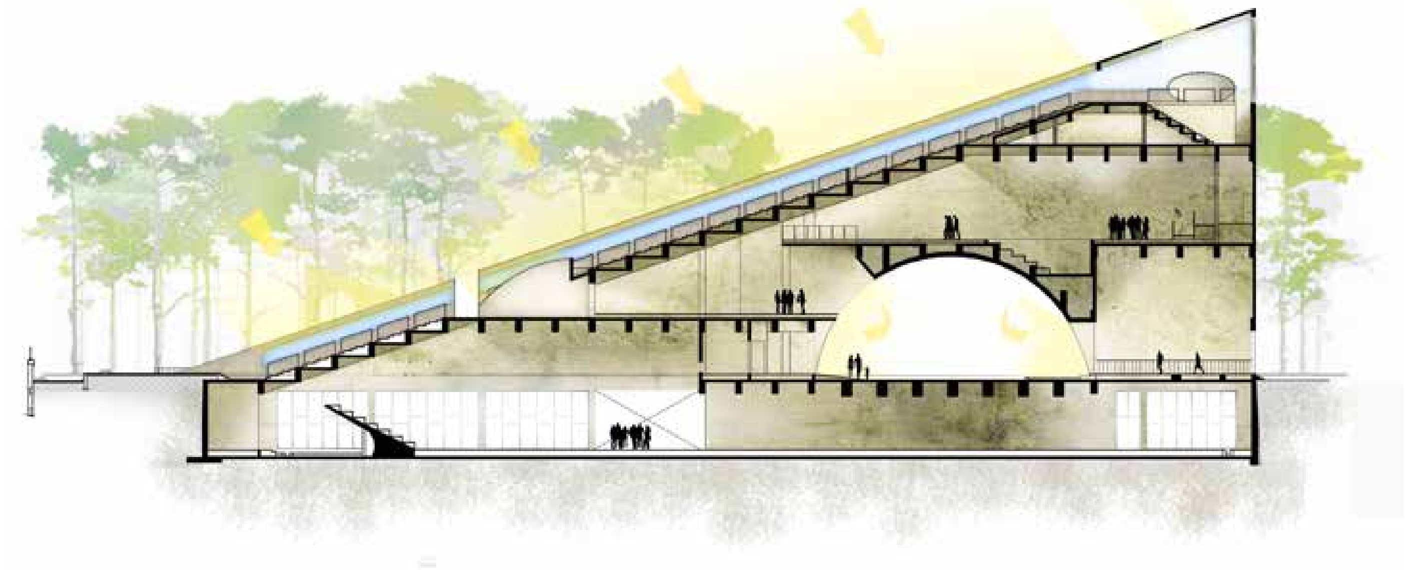
COMMENDATION AWARDS
COMMENDATION AWARD
AR. SOURABH GUPTA (NOIDA)

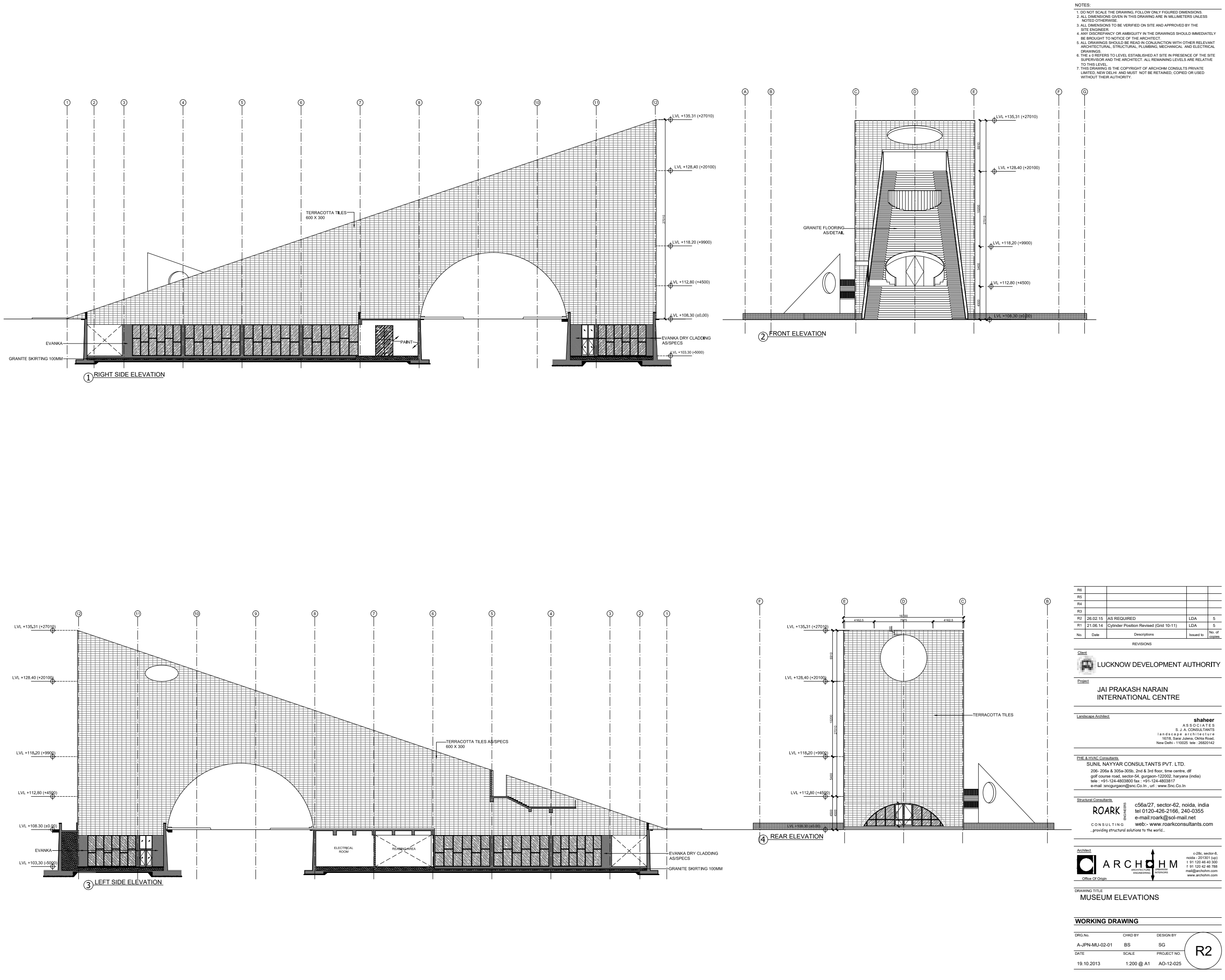
31st Architect of the Year Awards JK AYA

JAYAPRAKASH NARAYAN MUSEUM OF SOCIALISM

The JPN Museum is a gateway framing the centre placed as a wedged-shaped monument with a massive arch carved out of the mass; its nine-metre height and twenty-metre ambitious span are clearly attempts to push the limits of structural design and construction. Its stepped roof terminates in a pavilion that gifts a panoramic view of the R.M. Lohia Park and the Convention Centre.

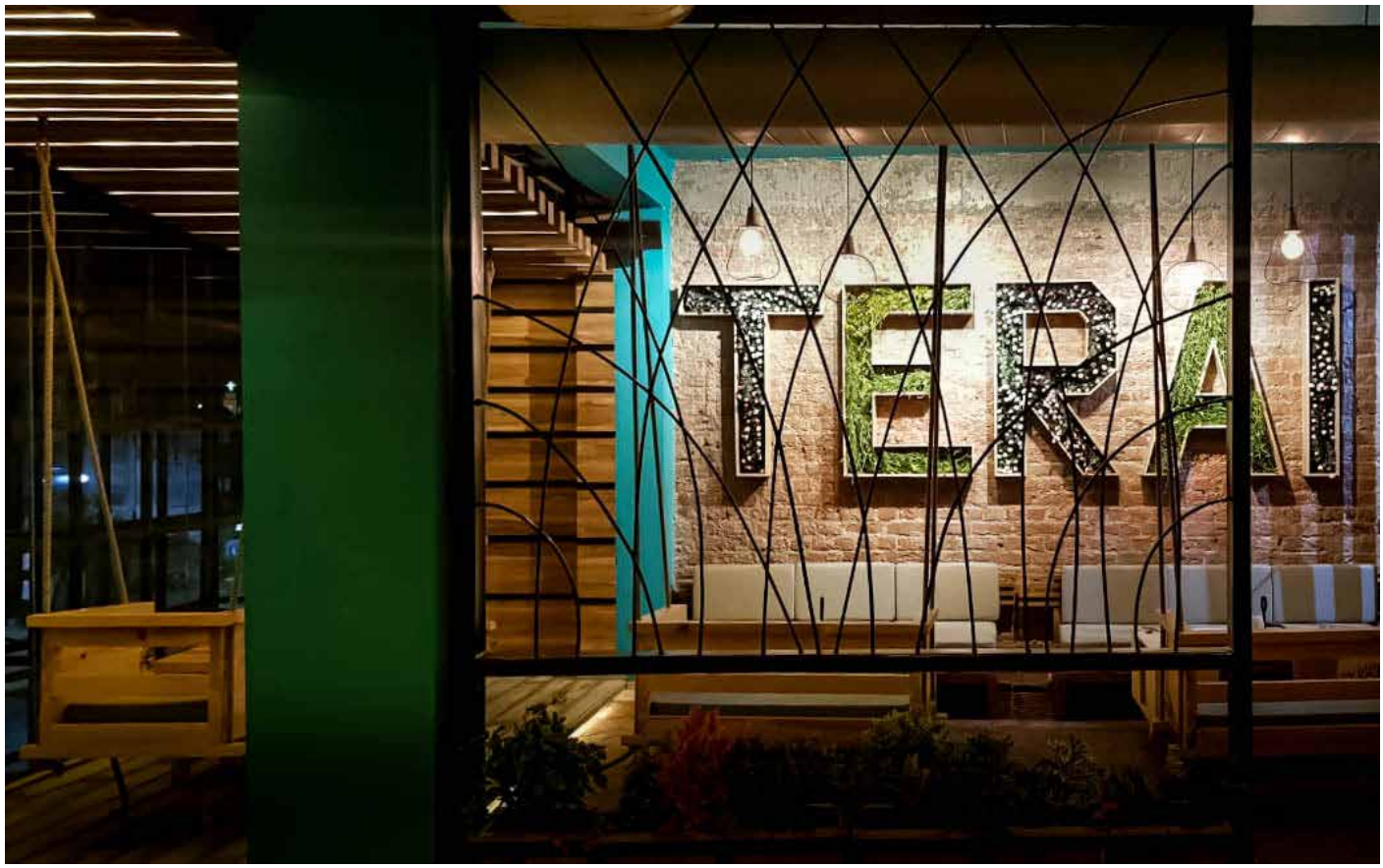
The museum within is an experience in space design with the depiction of Jayaprakash Narayan as a chronological narrative of a linear journey. It is divided into two zones; the zone of absorption and the zone of reflection. As the names suggest, these spaces enable absorption of information triggering curiosity and contemplation which then is expected to lead to reflection and assimilation. Thus the museum is not just a container that preserves frozen albeit inspiring moments of a past but breeds them and ensures that they percolate into current reality, and lay the foundation for the future. Thus while the various exhibits and narratives remain centre stage, the building offers surfaces, volumes and elements as tactile backdrops.




TERRACOTTA TILES
600 X 300
GRANITE FLOORING
AS/DETAIL
EVANKA
GRANITE SKIRTING 100MM
EVANKA DRY CLADDING
AS/SPECS
1 RIGHT SIDE ELEVATION
2 FRONT ELEVATION
TERRACOTTA TILES AS/SPECS
600 X 300
3 LEFT SIDE ELEVATION
TERRACOTTA TILES
4 REAR ELEVATION
LVL +135.31 (+27010)
LVL +128.40 (+20100)
LVL +118.20 (+9900)
LVL +112.80 (+4500)
LVL +108.30 (±0.00)
LVL +103.30 (+5000)
NOTES:
R2 26.02.15 AS REQUIRED LDA
R1 21.06.14 Cylinder Position Revised (Grid 10-11) LDA
No. Date Descriptions Issued to
REVISIONS
Client
LUCKNOW DEVELOPMENT AUTHORITY
Project
JAI PRAKASH NARAIN
INTERNATIONAL CENTRE
Landscape Architect
shaheer
PHE & HVAC Consultants
SUNIL NAYYAR CONSULTANTS PVT. LTD.
Structural Consultants
ROARK
c56a/27, sector-62, noida, india
tel 0120-426-2166, 240-0355
e-mail:roark@sol-mail.net
web:- www.roarkconsultants.com
Architect
ARCHOHM
DRAWING TITLE
MUSEUM ELEVATIONS
WORKING DRAWING
DRG.No. A-JPN-MU-02-01
CHKD BY BS
DESIGN BY SG
DATE 19.10.2013
SCALE 1:200 @ A1
PROJECT NO. AO-12-025
R2

The contemporary nature of the museum's architecture takes responsibility for creating what will be tomorrow's history, while narrating the current one. Although it celebrates and shares the ideology of socialism in retrospect, it also reflects the times we live in – both in its experience and space-making. The monolithic and bold form of the building takes a stance, and exudes empowerment, saying that, be it a building or man, one must be undaunted while envisioning and realizing a dream. It is much like what we understand of Jayaprakash Narayan's life. The conception of the institution was a journey that evolved with the project. The architecture sits in conversation and merges seamlessly with museum and exhibition planning, experience design and landscape.

INDIAN STATES ARCHITECTURE AWARDS
YOUNG ARCHITECT AWARD
AR. RAHUL JADON (LUCKNOW)



The Terai
PROGRAM: Bar, Restaurant and Bistro
Gorakhpur, Uttar Pradesh.

ARCHITECTURE FIRM: Node Urban Lab LLP
ARCHITECTS: Rahul Jadon and Rahul Kardam
BUILT-UP AREA: 2600sq.ft
COMPLETION YEAR: 2019

DINE ON STEPPE!

"IMBIBES THE NATURE " the café inspired by the Terai region of the Himalayan belt, eastern UP. This space plays host to a café and dining with a natural and healthy environment experience that captures the visitor's attention from the very start. Upon entering, the visitor is instantly transported to a terrain region, characterized by greenery that reflects the lowland region lying at the foot of watershed intake on sustainable design. The core idea is to make a Green Building café ny not installing solar panels, conserving water or reducing their use of electricity. but other decor elements play a substantial role in creating a healthier environment too. Natural materials , floor coverings and architectural design elements that use these renewable materials.

The concept is to wield the Green space in rustic themes by Natural Finishes. The intent is that every visitor feels the outdoors from inside the restaurant, this also elevates the overall vibe of the space. Consideration for Green Interior:

- Minimalistic Interior for Decreasing Carbon Footprint
- Providing plants in indoor spaces to balance the indoor Air Temperature
- Conserving of Natural Resouces by use of Natural materials like Traditional clay tiles in floos/walls and Exposed surfaces
- Clear Glass Window in NE Facing gives a natural light and Ventilation
- Use of Low VOC Wall finishes which act as thermal insulation.
- Use of Less energy Consuming LED Lights

There is a much bigger focus on the emotion involved by the ambiance of the space. A friskiness continues on the surfaces, fixtures, and furniture across the restaurant. The restaurant features custom in-situ flooring with textured ceramic tile inlay in the sitting zone, exposed ceiling, and printed chairs with raw wood finish tables that further augment rustic themes. Rustic hues, curved lines, and green images draw one in through a small and inconspicuous space, into a cozy yet minimalistic entryway dotted with indoor plants and ceramic wares.

The color palette consists of warm Indian yellow, shades of turquoise, and plenty of natural raw wood finishes.

The use of natural fire bricks cladding on the entrance wall as the café rear walls, a suspended metal shelf with creepers warms up space. Another wall is clear glass that gives maximum illumination and a clear visual connection for the visitors. The interiors overlook a live kitchen that makes it easily visible to customers from either end of the space.

For the private space, the design approach is to play with architectural materials by using traditional patterned ceramic tiles as flooring, geometric patterned wooden paneled walls, and contemporary parametric ceiling makes space unparalleled and thrilling.

An impressive suspended ceiling that creates the effect of waves embedded with lights that illuminate the whole space, metal and wooden lamps with plenty of creepers and strip lights make an Avant-garde statement. The lux levels and warmth created by the lighting are paramount to get this effect.

Warm white lighting brings vibrant vibes to an otherwise yellow canvas, we looked closely at lighting as an art, to maintain the minimalistic approach. And thus had a successful close-working relationship with our lighting. To have an ambiance that is completely novel and modish overall and feels. Plenty of artificial planters have been used to adorn the space dividers," planters can be expressive as works of art with the right lighting".

The design approach allows the shadow to play a stimulating role as well. We created different clusters of lights to define the different spaces and intentionally light the surface and object.

"Fluvial, waves of Terai" depict the façade design, which is establishing a visual connect with the populace.

These ideas took us beyond the fascia and intrigued us to get it reflected in the ceiling which imitates the parametric design and is inspired by the natural palette of the terrain region. One of our design challenges was to erect the façade through indoor space by a wave ceiling which acts as both functional as well as aesthetic.

Where we make a parametric counter by providing a fluidity effect in its design.

Along with aliment, ambient and tactful creativity, Terai takes a magnificent sentiment that provides travelers wholesome wisdom of fascination, curiosity, exploration, and bliss. It fascinates a visitor in virtuosity and amazement who approach it. Till you finally walk away, decidedly eager to return. Terai packages everything that one expects from a comestible destination.

FOREIGN COUNTRIES' ARCHITECTURE AWARDS (FCAA)

ARCHITECT OF YEAR AWARD

RAPA CHARTERED ARCHITECTS (SRI LANKA)

Café UFO at Ella
Sri Lanka

This year, The Award also recognizes green architecture development of worldwide context. So considering the present situation in Sri Lanka, Architectural practice and Building Construction sector has been facing to many difficulties due to uncontrolled vulnerable haphazard development in urban as well as suburban areas contextually. This situation is happening also in highly sensitive areas in Sri Lanka like in archeological sites, Rainforest sensitive areas, sanctuary areas and specially tourist attraction areas. Ella is a beautiful town in the mountains of Sri Lanka which is filled with tea estates, mountains, and waterfalls and of course with some good air to breath. Lots of people make Ella as one of their must visit destination just to witness the breathtaking views it creates. It is a dream place for many trekkers with some of the best hikes the Island provides. This hidden village got vastly popular among the tourists lately.

The motivation to build a sustainable, eco-friendly design in Ella stemmed from the growth of uncontrolled haphazard buildings that are constructed in the area, visually and physically challenging its background. There is an acute need for a vernacular touch in the area, since Ella is a tourist-sensitive locality. Visitors to the area prefer views undisturbed by haphazard structures that do not give due consideration to the context, ecology, and purpose.

The design concept is derived from mytho¬logical legends that are popular in the area. Ella is known for its connection to the story of "Ravana", the mythical king of Sri Lanka who is said to have ruled the land thousands of years ago. As described in folk literature, King Ravana has been in possession of a flying ma¬chine knowns as the 'Dandu Monara Yanthraya' – 'Flying peacock machine.' This machine is said to have been built in the shape of a peacock. The design of Café UFO was inspired from King Ravana's flying machine as described in folk literature. It acutely preserves the rustic qual¬ity of the legend in relation to Ella. The restaurant was named 'Café UFO,' re¬lating to the 'unidentified flying object' that it was inspired from, while adding a chic mo¬dernity to it.

The main raw material used in the construc¬tion of the space is timber. The timber acquired are from rose gum trees – Eucalyptis grandis – that is grown purposefully and approved for usage by the Forest Department of Sri Lanka.

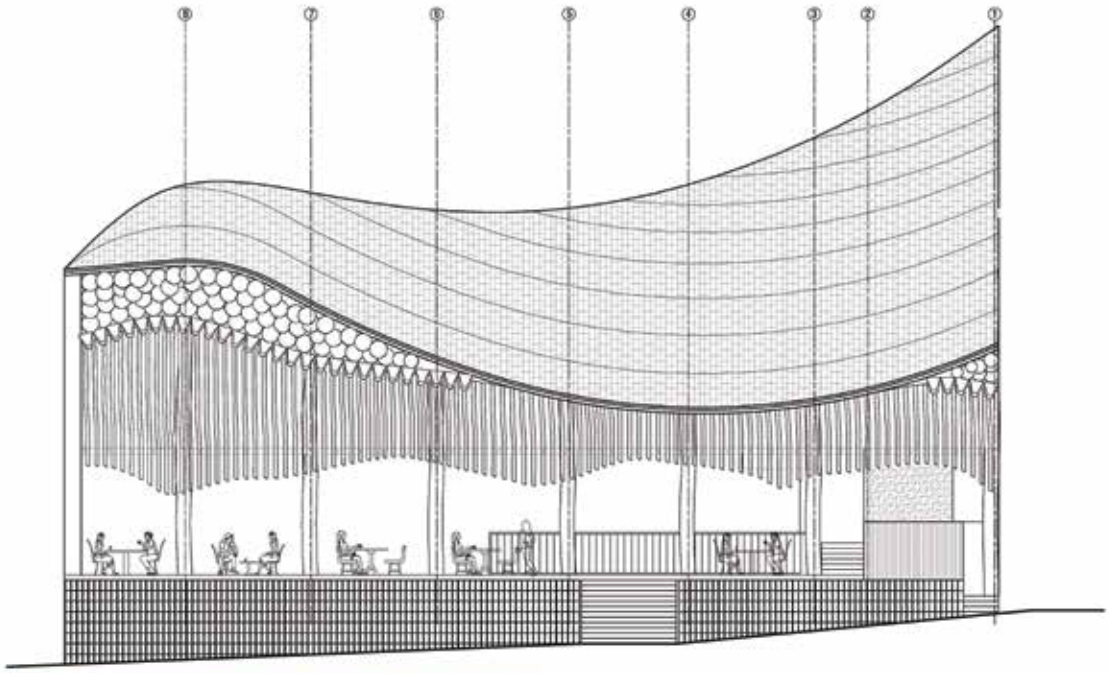
Micro timber branches are used as rafters and degraded wooden logs have been acquired for furniture. The roof is thatched with two layers of blady grass – Imperata cylindrica – with a tar felt sheet as a waterproof insulation in between.

Interior design has also been done with the application of eco-friendly and re¬claimed materials. Interior partitioning as well as interior wall décor were done using cinnamon sticks, and reed and rush products respectively. Interior decorations and lighting are complemented with metal pots, wheels, tires, and metal water buckets, all of the ma¬terials reclaimed and upcycled. Owing to the nature of the materials used, the design and architecture of Café UFO is highly sustainable and eco-friendly.

The lighting and space achieve a warm am¬bience, ideal for a dining placement. Amber, gold and brown tones are consistent in the structure, adding to the ambience while not being too harsh on the eye of the diner. The ground floor, first floor and a mezzanine lev¬el provide ample space. Each features differ¬ent arrangement of seating, leaving the visitor with several choices to dine.

The construction phase of the project was conscious of the social context and community placement as well. Almost all the raw material has been procured from the area and services such as carpentering, interior detailing and masonry were sourced from the community of Ella itself. Café UFO was designed in five months and construction was completed within seven months. A sustainable project, maintenance requires merely less time and funds.

This thoughtful and creative architectural design was owing to its appli-cation of creativity with technology towards a feasible, economical, contextual and environmentally sustainable project. RAPA chartered architects luckily got a chance to design a project in the heart of Ella town. Considering Contextual fats of the Ella, we created a concept analyzing historical connotations related to the area and convert it to innovative built form and merge with the contextual vernacular architectural characteristics very sensitively. We wanted to regain the vernacular character to Ella town through those haphazard concrete developments.

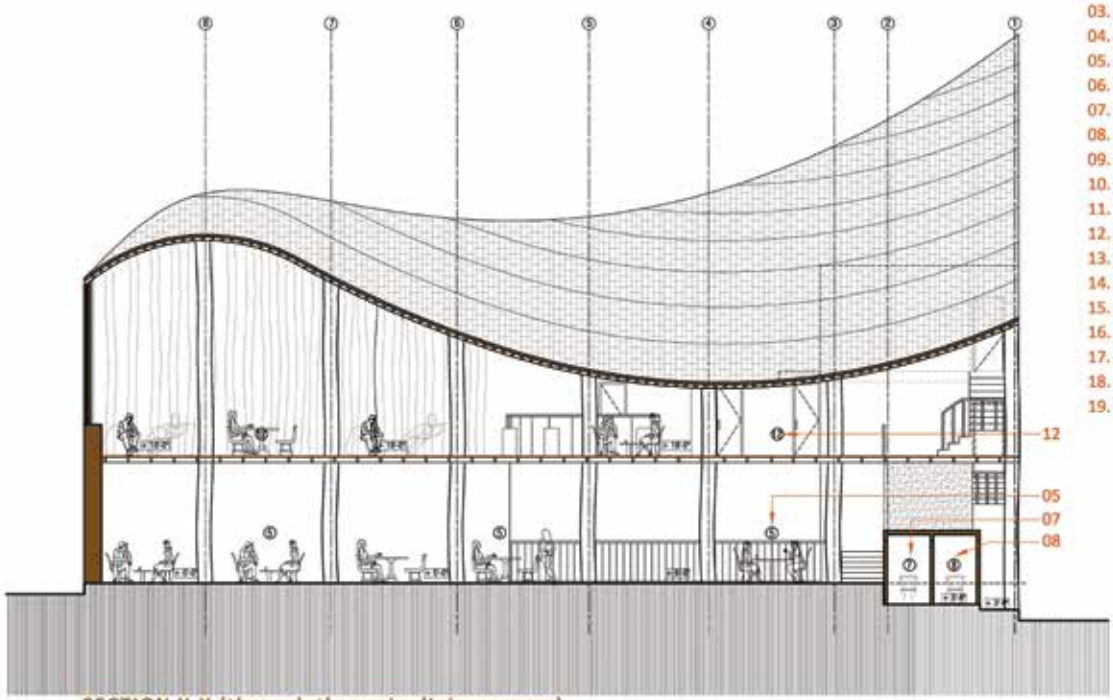


FRONT ELEVATION (from Ella-Wellawaya main road)

Project Name - Cafe UFO @ Ella
Drawing Title - Front Elevation
Scale - 1": 8' (imperial)

ARCHITECTURAL BRIEF

01. Entrance road
02. Main entrance with stair case
03. Outdoor dining area
04. Generator space (Covered)
05. Ground floor dining space
06. Coffee bar
07. Female washroom
08. Male washroom
09. Cashier
10. Kitchen
11. Kitchen store
12. First floor dining space
13. Bar Space
14. Bar Store
15. Store
16. Common washroom
17. Office and IT room
18. Mezzanine level dining space
19. Water tank space



SECTION X-X (through the main dining spaces)

Project Name - Cafe UFO @ Ella
Drawing Title - Section X -X
Scale - 1": 8' (imperial)

FOREIGN COUNTRIES' ARCHITECTURE AWARDS (FCAA)

ARCHITECT OF YEAR AWARD

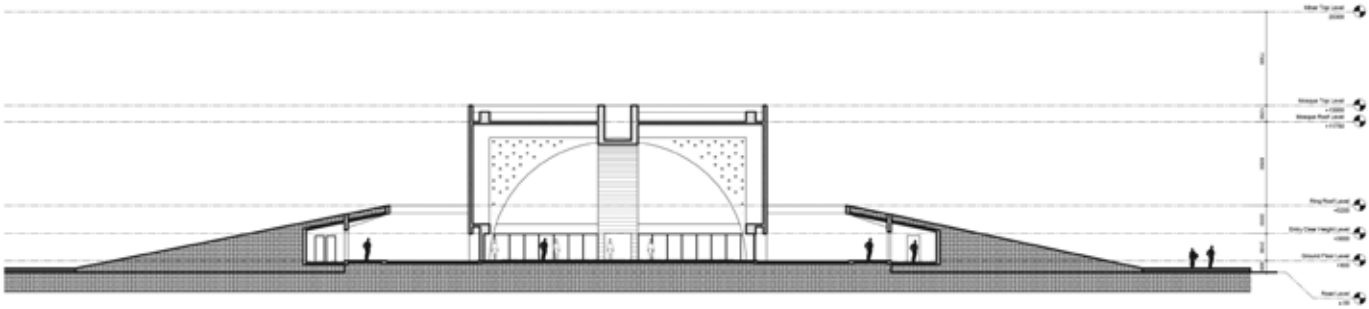
AR. BAYEJID MAHBUB KHONDKER (BANGLADESH)

Salient Features of the Project
Aman Mosque, Aman Economic Zone, Narayanganj, Dhaka

BUILT-UP AREA: 1492.27 sq.m.
COST: ₹ 3.5 Crore INR

DESCRIPTION OF PROJECT:
Bengal, a warm humid delta, complex by its nature is the home of multiple cultures and religions. Throughout the course of time people of various cultural and religious background along with their own philosophies, beliefs and the unique techniques of survival came to this land and merged with the existing culture and people which resulted to a rich and diverse culture. The climate is also very much complex and unique by nature due to geographic location. Both these factors have highly governed the architecture of this region. The adaptation of new ideas and techniques have also been very unique. People adapted new ideologies, new techniques, cultures and rituals and blended with the existing ones. They accepted new forms but transformed its characters. Its climate influences them to behave like such nature. Controlled daylight and provision of cross ventilation are the two very important factors that guides space layout and form attributes. Peripheral semi-outdoor spaces ensures defuse day light inside the indoor spaces reducing glare of the sun and also gives the scope to provide large openings in the facades that enables air to pass through the interior spaces. These are the essential factors, along with the influence of culture and heritage signifies the architecture of this region.

Mosque- a holy place of daily prayer, itself carries a distinct characteristics and identity. The place is serene and spiritual, space that takes individual close to the divine entity, form that has its own identity and supremacy. The design process of the mosque started with the idea of embodiment of spirituality by creating calm and serene environment. A pure form is being selected as the main mass in order to adhere to simplicity and singularity, at the same time attempted to explore beyond the limitation that comes with it.



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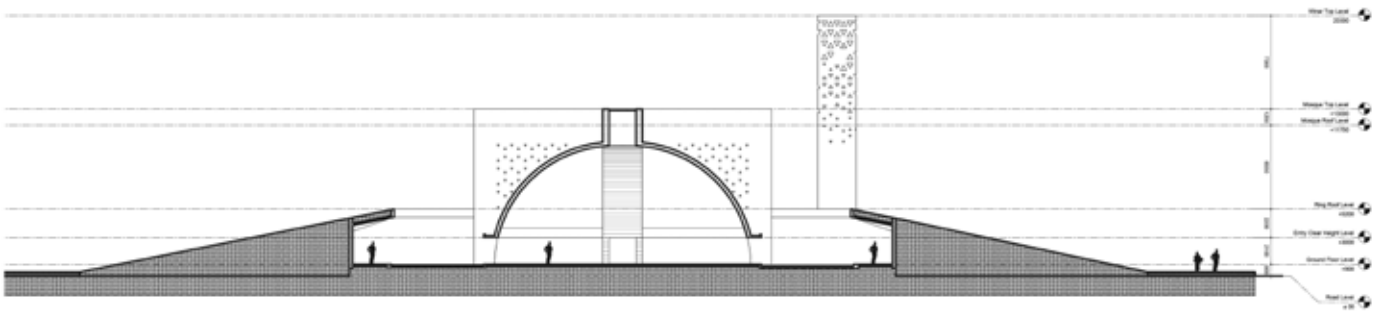

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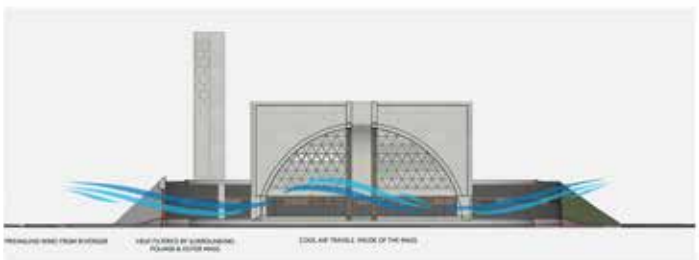
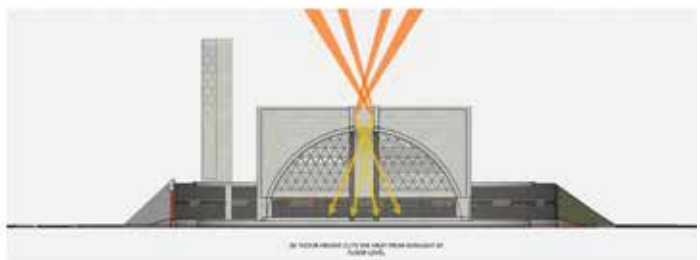
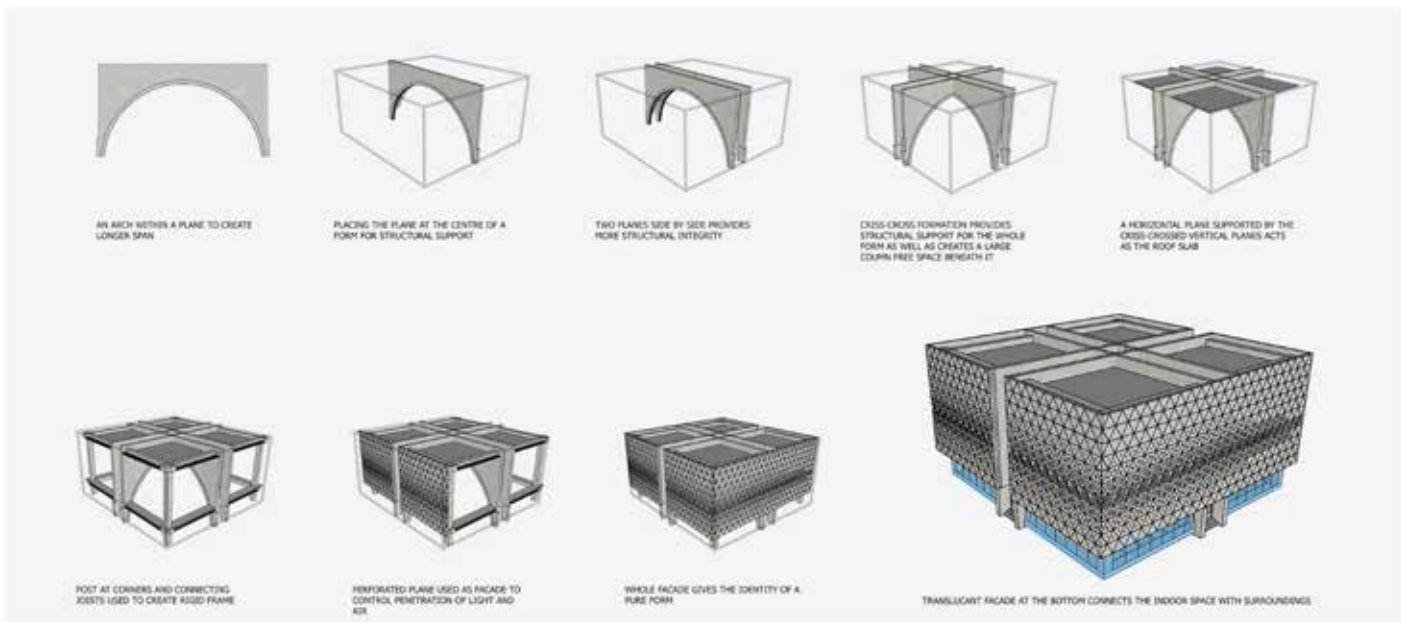
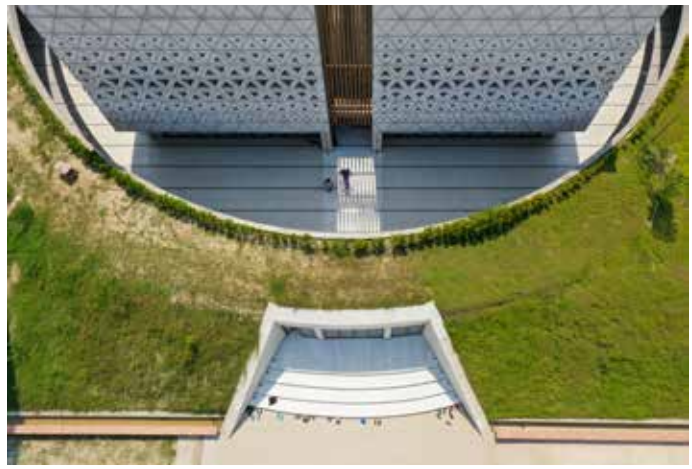








MATERIAL OF CONSTRUCTION DETAILS :

Single geometric form depict the intension of being pure in design approach and formal expression. A single volume of space created by the form accommodates the prayer hall which is significant in its scale and attribute. This massive form is being supported structurally by two crisscrossed arches that helped to create the intended single volume of space without interrupting the continuity of the space. The crisscrossed formation creates the impression of an invisible dome above the prayer hall that symbolizes mosque architecture.

Facades of the built form is solid, monolithic and robust that reduces noise of surrounding industries as well as the glare of the sun. Triangular patterned openings at the facades allow the sunlight to penetrate inside with more mysticism that makes the whole setting more spiritual and subline. These triangular pattern is the replication of traditional façade detailing in a very simpler but significant form.

The building mass is surrounded by circular semi outdoor space. This open to sky space is the source of defused light and air inside the main hall. The bottom portion of the building mass is transparent that connects the interior with surroundings. The operable glass doors allow the air to pass through the interior that keeps the space cooler and soothing.

The circular semi outdoor space is surrounded by high wall to block the bustling outdoor nuances of heavy industry. The landscape around the semi outdoor is sloped gradually that merges the building mass with its surroundings. This uplifted landscape creates the essence of a sunken courtyard where the building mass rests. The courtyard helps to retain calm and sound environment within the bustling and noisy activity of the industrial premise.

SPECIAL FEATURES :

As a whole, the built form gives a new image or develops a new language of mosque, that is much more transformed, simple but unique, bold but at the same time merge with surroundings.

FOREIGN COUNTRIES' ARCHITECTURE AWARDS (FCAA)
ARCHITECT OF YEAR AWARD
AR. KOSALA WEERASEKARA (SRI LANKA)

HELIUM: THE BOX OFFICE

BUILT-UP AREA: 1450 sqft.
COST OF PROJECT: (US$) 23,550

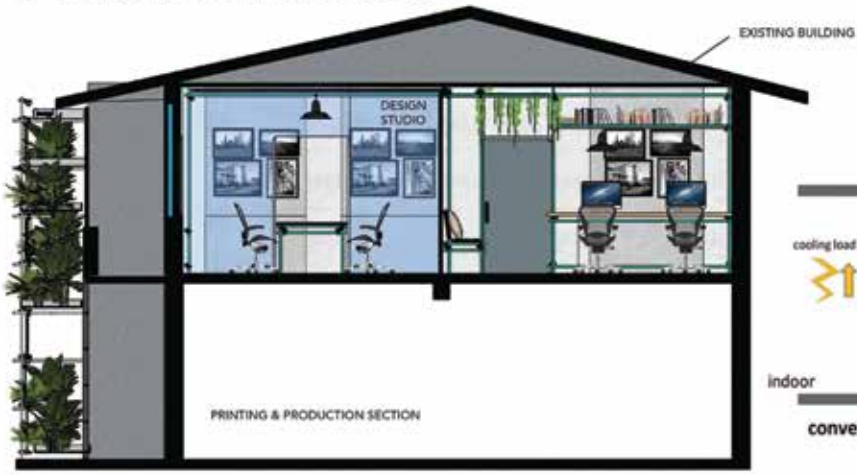
DESCRIPTION OF THE PROJECT
A renovation of an old two storey building into a budding print shop located in the center of Colombo's commercial district. The aim of the project to create a unique eco-friendly façade to attract customers in this urban neighborhood. Creating a green oasis amidst these modern high risers was thought of being eye catching and also would help improve the qualities of the surrounding. The facts considered when designing the interior spaces of this building are: maintaining good air quality, providing a user friendly and lively environment.

MATERIALS OF CONSTRUCTION DETAILS
Due to the budget constraints, low cost recyclable materials like wood pallets, GI pipes, pine-wood and wire mesh. The use of these recyclable materials provide great advantages environmentally and economically.

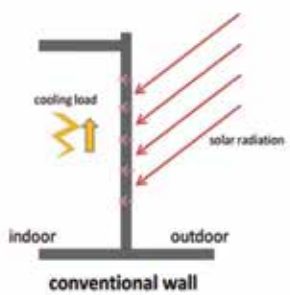
SPECIAL FEATURES
The façade being a green screen to filter out the air and noise pollution from the busy bustling streets. The foliage on this secondary skin helps to block out the harsh sun from entering the building, which in turn gives rise to a cool and productive environment. Foliage is brought in to the interior spaces which help to achieve a lively workspace. The perfect grid lines symmetrically balance the façade, creating perfect harmony which makes the building stand out well from the urban chaos. The design implemented helps make this rather small space into a much larger area.

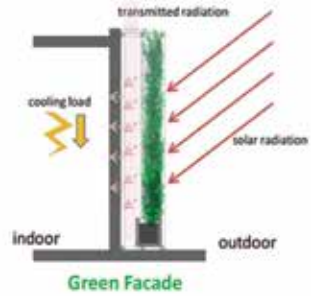
PLANS

SECTIONS & ELEVATIONS



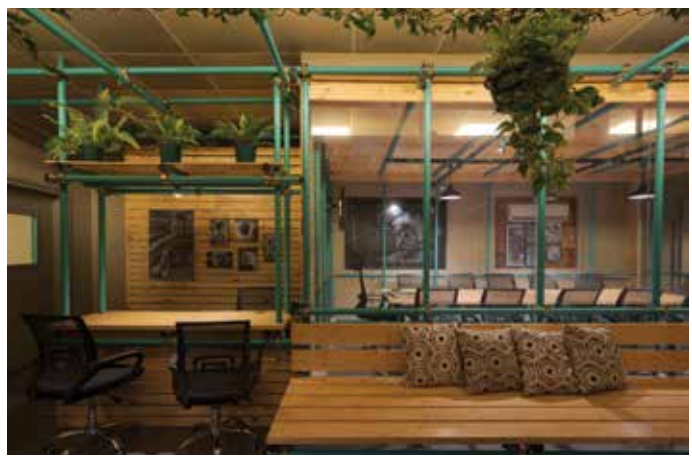
CROSS SECTION





CROSS SECTION OF THE FACADE

FRONT ELEVATION



DIALOGUE WITH Ms. MARTHA THORNE

Ar. Apurva Bose Dutta

Ms. Martha Thorne is Dean at IE School of Architecture and Design, IE University in Madrid and Segovia, Spain. She served as the Executive Director of the Pritzker Architecture Prize from 2005 to 2021. From 1996 until 2005, Martha was Associate Curator for the Department of Architecture at The Art Institute of Chicago. She has been a former member of the Board of Trustees of the Graham Foundation for Advanced Studies in the Fine Arts and has served on the Board of Advisors for the International Archive of Women in Architecture. She is an honorary Fellow of the RIBA and the Spanish professional association of architects.
Ms Thorne holds degrees from the State University of New York at Buffalo, the University of Pennsylvania (Master's degree in city planning) and additional studies at the London School of Economics.

Martha Thorne [MT], the acclaimed American architectural academic, curator, and writer, speaks with Apurva Bose Dutta [ABD] on the purpose, education, and recognition architecture demands and deserves. The dialogue further highlights the need for global consciousness in the field and industry. The dialogue was curated and conducted by Ar. Apurva Bose Dutta in 2021 for COASocial, an initiative of the Council of Architecture.

Apurva Bose Dutta [ABD]: You bring experience spanning several decades, multiple geographies and alternate disciplines associated with architecture and design. Besides the IE School of Architecture and Design, what are your additional present and future engagements?

Martha Thorne [MT]: Education is limitless, and the older we get, we realise how much we have to learn. Being devoted to a school of architecture and design, which is an evolution, takes time. The common thread across my engagements is the passion for communicating, understanding, and appreciating architectural design and the city at different levels. Recently, I facilitated the architect selection process for reactivating AZCA, a public space in the centre of Madrid. I assisted the client, a group of private developers who wanted to invest in and improve the public space, to understand how the value of good architecture, design and strategy can contribute to the city. Through my research, writing, engagements and associations with diverse organisations, I endeavour to communicate that architecture and design can be transformative and significantly contribute to our spaces, buildings, and cities.

ABD: With your expertise and knowledge in city planning, what parallels do you draw between architects and urban planners in Madrid, your home town, New York and India concerning their approach to city building. What can they learn from each other?

MT: Architecture has more to do with approaching a problem than working towards a particular formal expression or resolution. Architects commissioned to design a building in a city should realise that rather than creating space within the walls of a building or an object, the building has impacts that go well beyond. While some impacts could be immediate, such as the influence on traffic patterns or demand for resources, there can be long-term impacts that are less obvious in the beginning. A new building or space can represent and communicate something about its neighbourhood and attract new energy to an area, and therefore, contribute to the quality of life. A building also expresses cultural values. It can be closed or inward-looking or outwards to its surroundings. Whether Madrid, New York or India, architects begin by looking at the context, assessing all legal, economic, and spatial parameters and attempting to create a suitable response.

Taking advantage of globalisation that has allowed the world to become smaller and made connections more accessible, the countries should learn from each other's sensible implementation of technology and interpretation of sustainability. We should work outside our hometowns and countries and in the bigger picture, learn to interact, use research and technology to create better projects, and adopt best practices to approach these projects.

ABD: Cities today are socio-political-economic identities. You have been vocal about the importance of technology in cities and its disconnection and missing link with the physical environment. How can architects and city planners repurpose their initiatives to connect technology and the physical environment?

MT: Technology should be used to enrich the process of architecture to allow architects to continue concentrating on the best and most appropriate design response. Surrounding oneself with many gadgets and technology to make life easier is a limited way of perceiving technology.

Technology should be used to gather data and information and connect them to enable better decisions for the city. Whether it is the mundane tasks of analysing the wind, light, or energy, technology can help us. Secondly, technology should be able to visualise different scenarios of the future, which architects have been traditionally doing with other mediums such as sketches and physical models. It can aid in understanding the impact of buildings, traffic, and flow of people and accordingly model the potential future scenarios. Thirdly, technology could be used for collaborations – to get different voices from the political, economic, and social contexts, which are essential for any project.

We shouldn't expect technology to develop creative or innovative solutions on its own for the city. The city is an ecosystem of dynamic relationships. Technology is based on past performance, like a stock market. It can't create out-of-box ideas. We need human minds for that!

ABD: Architecture has a tremendous responsibility. It is perceived to be overburdened to deliver and meet expectations and make people love what it delivers. How can this responsibility or purpose of architecture be shared with other stakeholders so that city-building becomes a collective initiative?

MT: Architecture, if considered a panacea, is indeed overburdened. It is a great responsibility that needs to be shared with other city stakeholders, who should embrace common goals and work towards a multi-pronged approach. Firstly, the focus should be on improving public policies beneficial to the city. In Europe, we get many directives from the European Union about embracing sustainability and innovation. I appreciate it because it is challenging for a city to keep pace with technology and development. Our elected representatives are only in office for a few years, and often the timeframe of politics doesn't coincide with the process of building or occupying buildings or a city's life. Hence, the responsibility of public policies and cities should be at a broader level and not just linked to the terms of city politicians.

Martha Thorne with Jinhee Park at the Herald Design Forum 2018 in Korea

Secondly, developers come with the opportunity to realise projects. They can make a significant impact on the public and private sectors. They should not just focus on creating buildings and measuring the returns after three, five, or seven years. They should create value beyond buildings so that the returns happen midterm and long term, too. If they do so, the next time they build a project, it will be more sustainable and better appreciated. Education, architects, politicians, policymakers, and consumers can help developers understand their bigger roles in city-building. At IE School of Architecture and Design, we have two master's programs devoted to real estate development, city building, and sustainability. We focus on the relevance of developers understanding their responsibility towards creating value in a city as well as realising a profit.

All the stakeholders of a city must find common ground. Even if we start aligning with each other, it will allow diversity and vibrancy in a city and keep us all moving in one direction.

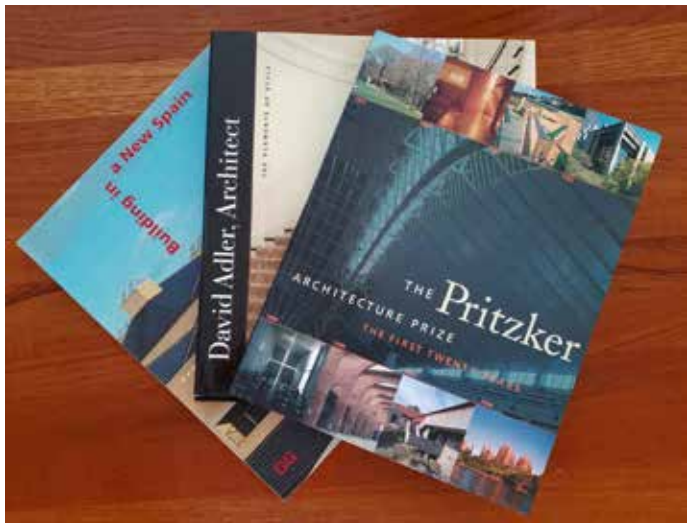
ABD: The foundations of realising the purpose of architecture ought to be sown during education. You have spoken about the need for architectural schools to differentiate between each other and how every school should have a DNA unique to their context and understanding of design. What is the unique DNA of IE School of Architecture and Design?

MT: It is the entrepreneurial skills we impart. It is a part of the culture embedded in the subjects we teach. In addition to the studies of the formal discipline, we encourage our students to find opportunities where other people may not see them. If there is a challenge, we encourage students to take a risk. We have short exercises in our curriculum where the focus is not on perfect outputs but to push them to think innovatively and familiarise themselves with a rigorous process to achieve an outcome.

We also emphasise a transdisciplinary approach to architecture and design. We are a small team of incredible faculty members. We focus on collaborations between the faculty members and students and ensure their individual voices are heard. We may move forward as a group, but we give every person the limelight to express themselves. Although globalisation and technology bring us together, they shouldn't lead us to standardisation and monotony. They should allow us to connect and collaborate and still do whatever best we do but in a more intensive manner.

ABD: Continuing with the transdisciplinary approach you mention, at IE, architecture, design, technology, real estate development, and management all come together. Through its various activities, the school has focussed on introducing students to alternative career choices in architecture, inculcating an entrepreneurial mindset, and encouraging them to step out of their comfort zone. How have your experiences informed the unique pedagogy followed at the institution?

MT: I have had a winding path in my own journey with interdisciplinary engagements, which has been enriching. I have had the opportunity to live in different countries, and



Books authored by Martha Thorne

IE is also a global institution where there is no dominant nationality. When you move to another country, rather than judging it on the first go, you should try and absorb all that it offers and allow it to permeate your mind, spirit, and personality. Being open allows you to gain information and understand in a way no book can teach you.

Secondly, I have been fortunate to have played different roles in my career. I believe it is good to be rigorous in thinking, but one should be generous in the ability to change, grow, fail, and try something else. Today students have more opportunities and challenges and will have even more in the future. It is essential that they reinvent themselves, continue to learn and try new things throughout their careers. At IE University, we encourage this thinking and learning.

One of the greatest lessons I have learned on my journey is that though every decision is essential, we have to allow ourselves the opportunity to fail. We should be able to look back at our choices with positivity and belief in ourselves and be ready to shift gears if we feel the decision is no longer working. This does not imply that one randomly keeps on hopping from one decision to the other, but it is to know there is always an alternative in the future, and one can always alter decisions. My journey has taught me to be open-minded and not worry if things are not perfect. I encourage students to do the same because there is lots of pressure on young people to always make the right choice, choose a career, and be successful.

ABD: In your institution, you also focus on the need to acquire a balance between practicality and theory. Considering the constant learning and varied perspectives in architecture design, how do you prepare your students for it? How do you ensure you give their imaginations sufficient space to bloom, but that space has defined boundaries?

MT: The credit goes to the faculty and directors of the various programs for their creative initiatives in education. They try to challenge their students to think, make good arguments, research and test things with the objective that the output would be workable today and tomorrow. Our architecture program focuses on polytechnical skills, too – how to

Martha Thorne attending the International Space Design Award in Shanghai in 2017


In conversation with Prof Carlos Moreno at an event in City Hall, Paris, in 2020

Martha Thorne at an event organised by the Roca Gallery in Barcelona in 2018

Addressing the students at the IE School of Architecture and Design, 2017

Addressing the students at the IE School of Architecture and Design during a master class by Paul Priestman

Martha Thorne, along with the students and faculty at IE University, during a visit by Japanese architect Kazuyo Sejima

IE students during a studio

analyse space, face the reality of constructing buildings, and understand how infrastructure in a city works. However, we approach our design assignments slightly differently from the other architectural schools in Spain. We don't give our students 100% of the parameters, such as site, area, or program brief to develop. Instead, we encourage them to study an area, find what is lacking and develop what it requires. Every group or individual then has a different project in hand. They analyse a city or area and use their imagination to figure out what they can contribute to that physical space in the future. They have to defend their ideas through their project. It opens the door to creative juices and develops the disciplinary rigour to realise it.

ABD: Moving to recognition in architecture, what shift have you noticed in your long association with architectural awards and competitions? Are there any suggestions to improve them? Should there be different perspectives the jury needs to consider? Should winning projects adhere to checklists, or should their holistic experience be the focus?
MT: One of the significant shifts I have noticed is the shift towards highlighting the idea or an invention or innovation to meet a specific challenge. The focus has steered away from the creator or their teams to the invention and ideas.

The other general shift has been to focus on the building's message instead of the building itself or the person associated with it. The message can be about women in architecture, sustainability, contribution to public space, innovation in architecture, or new building techniques. Today, prize organisations want to shine a light on something specific. While, on the one hand, they want society or the public to understand a message rather than looking at a person or building, they are also trying to rebalance a situation. Prizes highlighting women in architecture are trying to rebalance the inequality, lack of understanding of women's role throughout history, and the concept of the profession, which is not about only a heroic man or lone author, but more of a collaborative idea.

Specifically speaking about the Pritzker Prize, I have noticed a remarkable evolution during my association with them. Their jury discussions have become enlarged. Jury members talk about what is happening in society, the problems and the significant issues on everyone's mind, and how architecture could respond to them. While the criteria for the Pritzker have always been the art of architecture [quality] and service to humanity, with time, one noticed the discussion moving towards maintaining the balance between service and quality and concentrating on their intersection. There was also a shift towards the project's message rather than an individual creator. Today, there may be too many prizes. I am glad there are more than in the past because architects work very hard, and often society doesn't recognise their contributions. Hence, giving them recognition is always a welcome idea. We also have the opportunity and responsibility to re-evaluate the criteria of these awards and the message they convey. Recognition is essential, and today through the Internet and multiple voices, we should be finding other ways and channels of recognising people and appreciating and communicating their achievements to the public.

With Pritzker Laureate 2018 Balkrishna Doshi, at the Pritzker Award Ceremony held in Toronto in 2019

Besides awards, we have to be a little more entrepreneurial and innovative and find these other channels to recognise talent.

ABD: In several instances, especially at the national level, the same buildings often get awarded in different categories in successive years, probably attributed to lower participation in the competitions. How can this be averted? Should jurors themselves nominate awards for various categories?

MT: A couple of projects garnering all the significant awards is a challenge. Sometimes it happens because awarding a project that has already won somewhere else is easier than taking a risk with a new unknown project. At other times, it happens because the jury meets happen only once, and their responsibility is less defined. For Pritzker, jury members are expected to serve a minimum of three years, and hence this term comes with considerable responsibility, seriousness, and purpose over time.

In this age of technology, there can be no excuse for the lack of information or communication related to nominations and awards or competitions. I used to connect through blogs and websites for the Pritzker prize nominations, and people were enormously responsive. During my last term at Pritzker, I wrote to about 250 people around the world to solicit nominations. There were no long forms or complicated procedures. It was simply a question of having a network and a prize that was credible, fair and serious. People do want to participate and want their voices to be heard. They will respond if the outcome reflects their voice with clear criteria. Today we have many tools of technology and ways to communicate, and this can be successfully used to encourage more participants.

Hosting the Pritzker Ceremony 2015

ABD: In most competitions, spaces are assessed through what images communicate and jurors interpret. Though this encourages the participants to document their work more professionally, images can be deceptive. How does one deal with this? How does it impact the credibility of competitions?

MT: It is impossible to judge buildings or finished products only through images. However, it is tricky as one can't always travel and study buildings and spaces. There has to be a way to find an alignment between the competition's criteria and the recipients of the prize. Drawings and images cannot decide which is the best-realised building or one that will be in the future.

The competition for the first phase of Guggenheim Helsinki was the largest in history and received 1715 entries. It is hard to imagine how a jury panel of only 11 members completed this mammoth task! If they worked for one week straight, the entire jury would have reviewed each entry for less than a minute and a half.

To have credibility in competitions, one asks for entries to be evaluated in a serious, transparent, and responsible manner. If not, neither does it benefit the participants nor the prize. Students have to be additionally careful when they enrol in competitions and awards. It sounds very enticing to participate in a students' competition and win a prize. However, they should know their efforts are not being honoured if they don't win. They should be able to accept the loss.

Participants should think about the time, money and effort these competitions require. If they don't win, it is ok as long as they feel they have gained some learning and will use their idea and research in future. But if they lose and feel the competition was a disaster and a waste of their time, they shouldn't participate in the first place. Life can be random, and you should always have a safety net.

Some architecture schools have a subject called Design Competitions, where they teach how to approach and interpret competitions. I would add a few more aspects to that curriculum. Before participating, one should gain information and analyse the competition in terms of its organisation, award history and credibility. The mode of judging and jury list (and to look for possible conflicts of interest) is important, and whether there is congruency between what the competition guidelines say outwardly and how the competition is conducted.

ABD: Besides recognition through awards and competitions, we also crave basic recognition. At the Women in Design 2020+ International Conference in Mumbai, you expressed your wish to see more women in architecture win the Pritzker Prize. You also worked towards incorporating more women to be jury members for the prize. What steps do you take or recommend to ensure gender bias in architecture can disappear?

MT: Architecture schools, professions, and organisations should adopt different strategies and a multi-pronged

Martha Thorne with Pritzker Jury members on a site visit

Invited as a speaker at Women in Design 2020+, an international conference held in Mumbai in Jan 2020

approach to address the issue of gender bias in architecture. Discrimination against women and other groups in society happens on many levels. One notices subtle discrimination at an individual level where a woman architect or faculty member may be addressed differently than her male counterpart. At the same time, it is apparent at the structural level, which explains why only two women in the more than 30 architecture schools across Spain serve in the position of director or dean. The system for electing directors favours replicating the same characteristics as in the past, where it was an all-boys club that elected these heads. There is often no shakeup or incentive for changing things. It is a bureaucracy that continues to self-perpetuate itself.

The faculty is quite gender-equal at the IE School of Architecture and Design. Many women teach in non-traditional roles such as mathematics and structure, while many men teach subjects considered female subjects, like history and theory. We also ensure that the diversity in nationality and gender is also present in different views of the world. We, as an institution, support and embrace diversity at all levels. We say this is important because we are different, and we should learn to work together and learn from different people. Additionally, there are some smaller but powerful ways of maintaining gender parity. Our lecture series and juries for the students have an equal number of men and women.

However, I feel that we are still inclined towards more male authors in terms of bibliography or the resources we refer to. We have brilliant women academics and authors, and we should expand our resources to include their works in teaching. Institutions, organisations, and offices must look inwards and decide the measurements and mechanisms to promote people impartially, observe where the power resides, and ensure fair salary ranges.

Opening up the profession and academia is beneficial to women and the whole discipline. It makes the discipline more responsive and allows us to include more voices and work collaboratively. Diversity will give the profession additional credibility and more resonance with our stakeholders. Collaboration across genders is essential, and this is the way of the future. Sometimes we might not always know how it will benefit us, but clearly, staying where we are will not get us where we need to be in the 21st century.

All Pictures Courtesy: **Martha Thorne**

Ar. Apurva Bose Dutta, an author, award-winning architectural journalist, curator, and editor based in Bengaluru, works at the intersection of architectural design writing, curation, critique, discourse, and communications. Her professional journey of 17 years has seen global collaborations with multi-media publication houses, firms, organisations, and institutions to communicate on the AEC industry.
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ARTICLE

ENCLAVE URBANISM: RESTRUCTURING AND THE INNER CITY OF MUMBAI

Ar. Ginella George

Infrastructure networks, were nothing less than the connective tissue that knits people, places, social institutions and the natural environment into coherent urban relations. So to say, little less than the structural underpinnings of the public realm.
Ausubel (1988)

The inner city of Mumbai is a dense, vibrant and incomprehensible space. A site of intense duality with extreme polarities and accompanying contestations. Bombay gained prominence as a port city from its initial beginnings of seven islands. Governance and the accompanying addition of infrastructure was a catalyst in this transformation. Bombay is considered to be the first Indian city to experience economic, technological and social change associated with the growth of capitalism in India (Patel, 2006) and continues to be a city of many cultural expressions.

Unlike most Indian cities, Bombay did not expand from a pilgrimage or administrative centre. Its mercantile colonialism brought about swathing change leading to a stratified urban form and demographic pattern and two distinct spaces of the fort and the native town. The native town was an assemblage of various communities with their distinct practices of living, working and building. All at the same time trying to adapt to an ever-growing and evolving port city.

Community clusters attempting to find semblance whilst simultaneously seeking refuge, were the first forms of enclaves in the city. Enclaves have been formed through history in the city and this has had an impact on the urban form. This nature of building continues with an aim for exclusion and exclusivity. Luxury apartments, new commercial typologies are leading to an emergence of a vastly modified landscape. This essay examines the historical processes and the geographical settings of infrastructure in colonial/ post-colonial Bombay/Mumbai and the formation of enclaves.

Three key periods examined are pre-colonial (prior to 1534), early colonial (1534 – 1850) and late colonial (1850 – 1947). The attempt through this to reveal glimpses of urban development patterns whose compelling effects have continued to influence the city.

Pre-Colonial (prior to 1534)
At the time Bombay was a group of islands with scattered settlements. At its centre the clusters had either a temple, a market, an open ground or a water body. Not all islands were inhabited. There were only two or three that were only accessible at low tides through temporary means. Fertile areas were limited with coconut plantations, rice fields, vegetable gardens and fruit trees. The Kolis and Bhandaris were the sparse population on the islands. The earliest urban development can be attributed to Raja Bhimdev who established Mahim as his capital. However, in comparison Bassein in the north was a more intense site of activity.

Figure 1: The Inner City today

Figure 2: Pathare Prabhu cluster

Early Colonial (1534 – 1850)

The islands were handed over to the British in 1661 as part of a marriage dowry. They made no profit for the Crown and in 1667 were handed over to the East Indian Company. Surat was in close proximity and Mumbai served as a naval base, facilitated by its excellent harbor. The Fort became the administrative centre and this the dominant urban social space (Kosambi, 1986). With added fortification in 1716, it was an incentive for immigrants. Fishermen's huts in close vicinity were removed and land was acquired to layout plots. A semi-circular stretch of ground was reserved as an open space devoid of even trees and served as a distinct separation between the Fort and the expanding Native town. Select communities – Parsis and Armenians were invited to settle within the Fort. They brought with them their overseas trading links and interests. Banias from Surat migrated and settled in the Native town. The original inhabitants, the Kolis moved further north from their existing settlement.

Three gates and fort walls secured the European settlement. Property rights were granted to elite merchant communities who participated in the development of the space. With the burgeoning opium and cotton trade (Farooqi, 2006), the hinterland served as a space for material and labour and its extraction required transport infrastructure. Spaces like the port and markets were connected by roads bypassing native settlements. Spatially the city in this phase was a regional centre of colonial mercantile capital growth with the port controlling its export network (Kosambi, 1990).

Late Colonial (1850 – 1947)

The sporadic settlements outside the Fort walls agglomerated as the Native town. The colonial government controlled administration and military and trade was the preserve of the native communities of Gujaratis, Khojas invested in banking and investments. (Dwivedi & Mehrotra , 1997) The Kamathis from Andhra Pradesh were in large numbers in the city and were involved in building activities.

Bungalows, town houses and estates were the typologies in the suburbs. Densely inhabited spaces of the native town and Fort were five to six storied mixed use dwellings. The wadi was a distinct typology in the native town. The bubonic plague of 1896 led to the formation of the Bombay Improvement Trust (BIT). Street widening, sanitation and ventilation were its primary mandates. There was a presumption in the declaration that it was the mixed use tenements of the native town that caused the outbreak. 'Measures' were taken to sanitize through ventilation. East-west roads were cut through the existing fabric to bring in sea breeze. Sandhurst Road, Princess Street, Parel Road and the road from Crawford Market to Sandhurst Road laid out to completely bypass the 'congested' markets (Dwivedi & Mehrotra , 1997).

Figure 3: Ground realities

In around 1880 the Bombay Port Trust railways brought material from the hinterland directly into the port. Subtle segregations were played out as infrastructure – roads, railway corridors and tram lines began to physically restrict area for expansion. A major road – Queen's Road was laid on the periphery of the town and enabled a seamless bypass connection to the outlying suburbs. From this 19th and early 20th century experience, theories of physical planning as well as planning legislations and the mechanisms were utilized to implement through the means of social technology environments and people that were modelled or controlled in accordance with an assumed public good (Kosambi, 1986).

Consequences of the New Spatial Structure

With Independence the spatial divisions of the colonial city were retained, although the European- Indian duality no longer existed. The former European residential areas were now occupied by the westernized upper class. The native town continued to be a dense and congested space and a thriving economic core due to the location of the markets. Although the markets gave the spatial form a seamless identity with its clusters of activity, in reality the enclaves were further reinforced on the basis of community and occupation.

Physical planning initiatives and legislations were subtly used to create political and social divisions with and implication on the urban fabric (Dossal, 2010). In this situation this techniques and goals of planning – orderly development, easing traffic flows, physically healthy environments , planned residential areas, reduced densities and zoning of industrial and residential areas were introduced each according to the standards deemed appropriate to the various segregated populations in the city – and all without disturbing the overall structure of power (Banerjee-Guha, 2006).

The principal elements emerging from the current practices of Mumbai fitting in the globalization scenario are :

a) a decline in the manufacturing and shift of the urban economy to finance and services
b) increasing flexibility in the organization of economic activities
c) large scale intra-urban movement of people and services
d) huge displacements of low-income groups and poorer sections from older areas that experience urban renewal
e) development of pockets of affluence – commercial and residential and shift to mega structure and hyper forms.

These shifts in social and cultural and hence economic patterns has an implication on urban space. The locality as a space is overlooked in wider global reach projects. In the restructuring process there is an increase in construction, luxury housing in now high real estate value areas and older areas of the city converted to commercial spaces. The ground reality is far removed from these imaginations and constructions. The intersection between capital and urban restructuring bypass informal processes. The reorganization of the built environment creates new orders and uniform identity.

This is not to say that enclaves have not existed in Mumbai's history. Earlier they were directly based on community and region, not directly driven by capital. However, infrastructure has always been the medium through which these transformations have been enabled. It is imperative that we understand the expansive nature of this current trend of urban spatiality to prevent our cities from losing their essence and character to becoming banal spaces. Only through such a vision can people become an integral part of the planning process leading to a more nuanced intervention in urban space and a more inclusive approach towards integration and upgradation.

All images courtesy: ***Author***

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PRACTICE MATTERS

Prof. Madhav Deobhakta

Reading Fine Print and Understanding Its Implications

'Fine print' means the inconspicuous detail or conditions printed in an agreement or contract, especially the ones that may prove unfavourable.

We architects have to read many technical and legal documents. These include Letters of Appointment, Contract Conditions, Detailed Specifications, etc.

We do read these documents when executing projects, sometimes very carefully, at times cursorily. Many of us find ourselves at the 'receiving end' because we do not read the fine print carefully and do not anticipate their practical and/or their legal implications. The result is often a compromise or foregoing a part of our professional fees. In some cases perhaps it can lead to a lengthy litigation and other serious consequences. A few such cases are discussed below.

Case No. 1

In this case the Architect may have read his Letter of Appointment but did not fully realize the implication of the arbitration clause. It had a provision stating that the Architect shall appoint his nominee as arbitrator in consultation with the Client. There was no such obligation on the part of his Client.
The Arbitration Act clearly states that each party is at liberty to appoint one's own nominee. It further states that if a party wants to challenge the appointment of other party's nominee.
The stipulation in the Act is that the challenge has to be made before the Arbitral Tribunal at its first meeting. Two members of Tribunal will give their ruling whether the Arbitrator needs to withdraw or continue after taking into consideration the arguments of all concerned, including the Arbitrator whose appointment has been challenged. In the instant case when the Architect realized the implication he consulted a senior architect who advised him to write to his Client that "by way of consultation I am writing to you that I am appointing an Architect … so and so … as my nominee as Joint Arbitrator."

If the word would have been 'in concurrence' the Architect would have been under obligation to obtain the agreement of his Client, but since the word was consultation there was no such obligation on the part of the concerned Architect.

Case No. 2

In this case the Client had appointed an Architect as per the COA format. According to this letter, the appointment was as per COA's Conditions of Engagement and Scale of Fees. According to Clause No. 15 in these Conditions, the President of COA was to appoint the Sole Arbitrator. When disputes arose, the COA President appointed a senior architect from Mumbai as the Sole Arbitrator. The Client was based in Tamil Nadu, where the project was. The Client moved Madras High Court for appointing an Arbitrator from Tamil Nadu. The Madras High Court appointed a retired high court judge as the Sole Arbitrator. Neither the Architect nor his very senior counsel objected to this appointment. The arbitral proceedings lasted for nine years. The Architect was awarded a paltry sum as his balance fees. The cost of the arbitration process was to be borne by both the parties equally. Obviously the Architect and his Counsel did not raise objections on the grounds that the Sole Arbitrator need not necessarily be from Tamil Nadu since there was no mention of jurisdiction in the Letter of Appointment. Further, the Architect's Counsel failed to argue that if the Client wanted a Tamil Nadu-based Arbitrator, the COA President could be requested to appoint the Sole Arbitrator from Tamil Nadu. As per Law of Contract once it was agreed that COA President will appoint the Sole Arbitrator, the Madras High Court should have asked the parties to take their dispute to the COA President. The concerned Architect did not consult a senior member of IIA nor the President of IIA.

Case No. 3

The Client appointed an Architect for a relatively a small Industrial project. Since the scope of work was small, the Architect did not appoint a project manager to handle the technical matters such preparation of contract documents, site supervisor, etc. After obtaining all necessary approvals and preparation of production drawings, etc., tenders were invited. The Contractor was selected, Works Order was issued and the construction work commenced. The work had reached the first floor slab level. Since the height of the floor was 25 feet, the Structural Consultant had advised the Architect to instruct the Contractor to provide steel props and steel form work. The Contractor requested that he may be permitted to use two-stage wooden props and wooden formwork. The Architect in his wisdom allowed this. The Structural Consultant inspected the work one day before the concreting operation. He suggested bracing at certain places. The Contractor did not provide the bracing. The architect did not check the bracing and allowed concreting work to commence. During concreting, a portion of the slab collapsed. Two workers died on the spot and the Contractor and his supervisory staff were arrested. As luck would have it the Architect and Structural Consultant were questioned during police investigations. The matter went to Labour Court. Families of the deceased labourers were awarded compensation. Apart from the Contractor, the Owner was also asked to pay a hefty sum as compensation. During the court proceedings, it came to light that the Architect had not provided a clause asking the Contractor to indemnify the Owner against any claim due to injury to workers, injury to third party and damage due to fire or collapse during construction. Finally, the Client sued the Architect for failure to safeguard the Client's interests. The Architect had to pay with interest and forgo his balance fees.

Bottom Line

Architects need to be vigilant while handling a project, read the fine print, understand the implications and take care of minute details. Whenever in doubt, consult the IIA Practice Committee or peers. J.R.D. Tata used to tell his staff to take into account every minute detail so that there is no occasion for compromise or neglect.

Prof Madhav Deobhakta Prof Madhav Deobhakta is Past President of IIA. He and his wife Meera have authored *Architectural Practice in India,* published by Council of Architecture in 2008. Their latest book, *Futures of Relevance,* has been reviewed by Ar. Mangesh Prabhugaonkar for JIIA. Prof Deobhakta has six decades of teaching and professional experience. He has successfully defended four architects before the COA Committee in Disciplinary matters.
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POEM

MAJESTIC KALABHAVAN

The Maharaja Sayajirao University of Baroda

Dr. S. Brintha Lakshmi

Kalabhavan, majestic and sedate,
Making your presence with élan,
Evoking a sense of elation,
Telling people I am warm with grace.

Your grandeur emanates from your symmetry,
The tall elegant tower, and the porch highlighting a centrality,
That contrasts with the two arms and their horizontality,
Aided by a façade of arches, fine-tuned and refined as a symphony.

The grandeur translates to the interior,
In the passages, tall and linear,
Revealing discreetly, glimpses of the soaring central tower,
Framed through the well-proportioned arches of a spacious corridor.

Your grandeur flows from the stately stone staircase,
Covered overhead by a dome, finely crafted as a glass case,
Leading in to enclosed large, airy, room spaces,
Telling the user, I have a variety of spaces.

Your warmth pours from the brick and stone,
Interwoven in panels, small, and shown intone,
The brick and stone finely cut,
To display a subtle strut.

You stand on a plinth,
Highlighted by a projection, delicate and thin,
Engaging the user at the plinth,
Through your transparent ends, with a win.

The arms of your mass extend to embrace pockets of space,
That flow into the forecourt space,
Connecting the mass and space,
Creating an ease in the molded space.

Your mass is transparent and light,
With your arches showing no might,
But elegantly playing with the light,
And connecting with the vast expanse of the sight.

Emphatically terminated with a projecting chajja,
To define the horizontal character of your elevational aura,
Your lightness extends above the roof with a series of chattris and domes,
Making your façade an epitome.

Your grace exudes from your ornamentation,
The fine carvings on your stone arches, domes, parapet and balustrade,
Are not an invasion, but a celebration,
To ensure your timeless grace is prudently portrayed.

You may be tall and large,
But you are not a lump in space,
You are an example of finely integrated masses and voids that express an urge,
To respect and blend with the nature given space.

Dr. S. Brintha Lakshmi
Retired Associate Professor from The Maharaja Sayajirao University of Baroda. She was the Officiating Head of the Department, the Chairperson, Board of Studies in Architecture, and the Associate Director of the Master of Urban and Regional Planning Programme before she retired.
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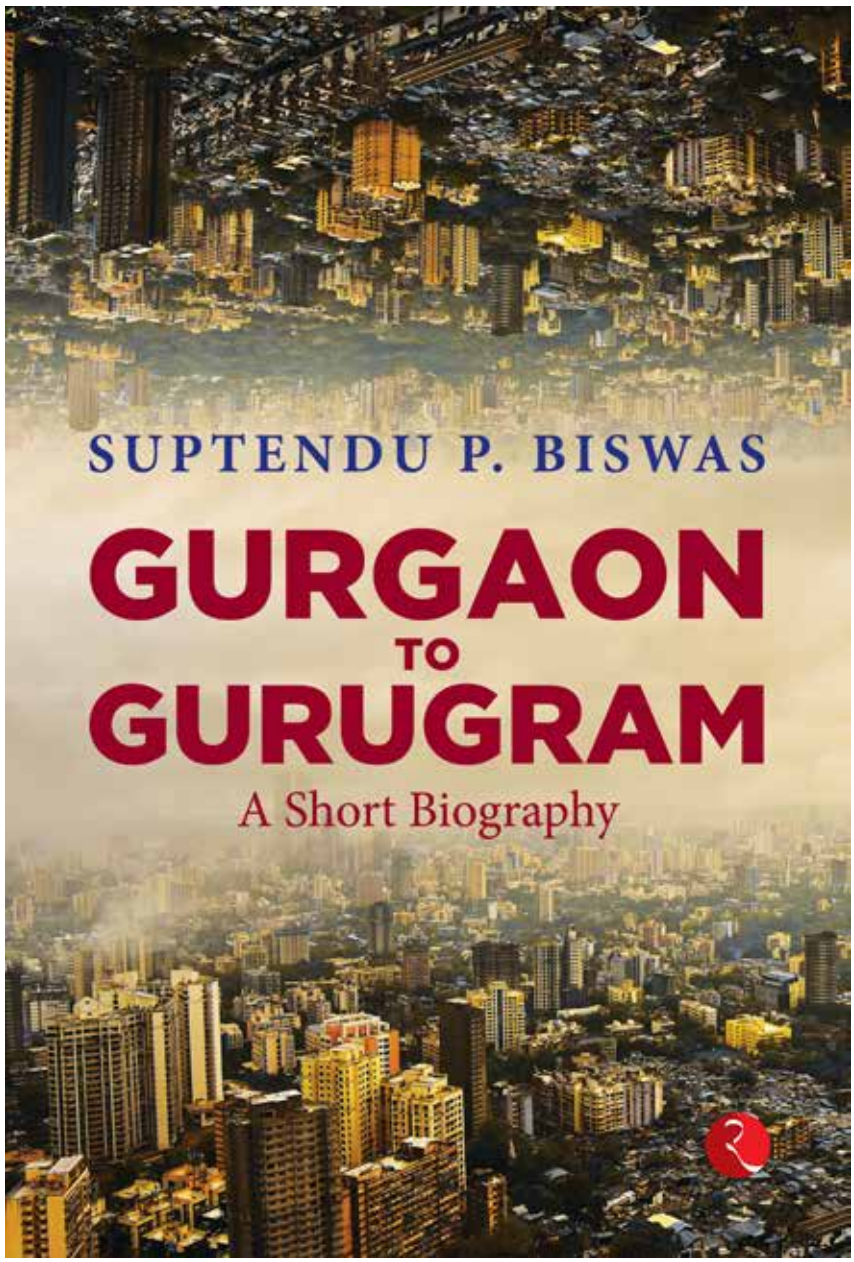
BOOK REVIEW

GURGAON TO GURUGRAM
A Short Biography

Author: Suptendu P. Biswas

Reviewer: Ar. Sheeba Amir



Fact File

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The book *Gurgaon to Gurugram: A Short Biography* by Suptendu P. Biswas tells the tale of the exceptional urban transformation of an 'ambitious city', bringing his views as an urban theorist, scholar and someone who has experienced the city for more than a decade. It is a story of transition, not only of the very much visible built fabric but the everyday life of the city called Gurgaon. The book essentially defines Gurgaon as a juxtaposition of spatial and social 'ambitions' and cleverly weaves the many stories of its residents through an urban development narrative. The book is a timely assessment with reference to the transformation pace of the city, which is presently faster than ever, with large scale development proposals creating an environment of hope and ambiguity.

The book builds Gurgaon's socio-spatial transition layers through five engaging chapters, reflecting on various aspects of its extraordinary growth. The book references historical documents, technical plans, newspaper articles and crucial statistical data to provide a perspective and clarity to the reader. The chapters are titled appropriately to build the sequence and hold the interest of the readers.

The initial chapters titled *Transition and Ambition* focus on the legal and planning framework through the analysis of planning policies, acts and events that were crucial in driving the city's growth. The chapters demonstrate the role of socio-political scenarios in driving the spatial transition while relating the 'development' of the city within the larger institutional reforms of the country.

The chapter titled *Impression* is a critical reflection on the architecture and spatial morphology of the city. Interpreting Gurgaon as an 'assortment of conclaves/small colonies' and its architecture as 'generic/global', the author points at the lack of the spatial identity and 'legibility' of its urban fabric.

The following chapter titled *Contradictions* discusses the dichotomies of the city, apparent in the 'rustic ethnicity' of its old inhabitants and 'cosmopolitan urbanity' of its new occupants. The author brings forward the issue of socio-economic, socio-cultural and environmental contradictions of the city and contrasting parallel realities of its inhabitants. The chapter can be read with reference to the city as a 'social construct' with its formal and informal fragments overlapping to create socio-cultural dynamics. The book also participates in the crucial discourse of environmental degradation by discussing ecologically crucial, however, neglected and encroached Aravalli hills. Water streams originating from the hills are crucial for maintaining ground water levels of the region, while the hill forest is essential for the local biodiversity.

In the concluding chapter, the book suggests a collaborative approach between relevant public and private sector actors as a way forward for the balanced growth and development of the city.

Throughout the book, the people of the city remain an indispensable part of the narrative, situating cities as socially constructed entities and an outcome of human ambition and progress. The book contributes towards documenting and understanding the changing landscape of Indian cities, beyond the logic of a formal or planned city, aspiring for a global image. As mentioned in the book, important issues like spatial fragmentation, hybridity, lack of infrastructure and socio-economic inequality are the realities of not only Gurgaon but most megacities of the country. The book unravels the many layers of complexities and contradictions this 'ambitious' city holds within, making it an essential read for the people interested in deconstructing these layers.

Image Courtesy: **Reviewer Ar. Sheeba Amir**

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Suptendu P. Biswas is an urban theorist, who works in the overlapping fields of Urban design & planning, spatial equity, landscape urbanism, urban heritage and socio-cultural studies. With a PhD in planning, he has been involved in consultancy, teaching, research and writing with his work presented, published and exhibited in India and abroad.
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Voices

The Journal is continuing with this section called **VOICES.** Members are welcome to write on any issue regarding the practice, profession, education, etc. in about 700 words. Selected articles will be carried in this section.

ARCHITECTURE: THE FUTURE AHEAD

Ar. Harshad Bhatia

The future will not be distant since the speed of change over time is increasing. As observed at the end of the twentieth century, globalization, liberalization and privatization, all in the offing of an open economy for India, led to a possible universal expression of architecture. A visual proliferation caused by information networking has made way for a common language of representation. And the new technology itself is affecting the approach to design and its implementation.

While the field of Architecture will continue its social fundamentals of providing habitation with a human purpose, change is also imminent in the way of life for society. This is how design will be driven in the future ahead.
At the near scenario within, trends indicate that the scope of Architecture is narrowing. Either in a fragmented manner through specialization or in a fractured sense of shared responsibility whereby it becomes a discipline among others that link together within an industry. If so, then Architecture will be a part of the construction or real estate industry. No longer interdisciplinary in the primary sense, the field will narrow the role and design will need to delve deep within its human purpose.

In another situation with forethought, the inter-disciplinary nature of Architecture as a profession, will tend to widen. It will redefine, if not refine itself to be inclusive of social inclinations with systems thinking. This will be a paradigm shift that embraces change with a sense of doing better towards being humane and by using human intellect. Architecture will evolve to be holistic as a system towards application from conceptual design to complete construction. Any part of this framework shall cease to fall within the domain of Architecture but shall nonetheless, branch off into a service itself. This enables control over project realisation by fusing man-made with digital skill, applying emotion with intellect and the spirit of enterprise with innovation. Creativity in the future will be defined thus.

Signs of these futures are being felt through the variety of projects being documented and reviewed using new means, both measurable and based on feeling. Architecture then, in the future will be wide for interpretation to its own advantage. The process will be seen as that of thinking, making and living, viz., designing, building and occupying with the purpose of enabling shelter a human need. In a sense, think design from new technology tools to shorten time in visualizing options, almost like assembling spaces; coordinate construction activity using material and technologies that enable increase speed, minimize adverse impact yet be cost effective; and inhabiting with a purpose to adapt changing use with comfort, security and privacy in a connected society.

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ARTICLE

WALK-A-LOG - WALK FOR ARCAUSE

Ar. Gita Balakrishnan

Walking through Garhwa Region, Jharkhand

Stretching Post Walk, near Rewa, Madhya Pradesh

I have a treasure cache of dreams which I reach into from time to time to hand out some dreams for others to realise. There is a secret pocket in this cache with dreams that are rather dear to me. I take them out often, to stroke them, to explore them, to nurture them and wait for them to come of age. And this #Walkforarcause had its pride of place in this secret pocket. I committed to 'Walk for Arcause' in July 2021.

70 days of walking
1700 kilometres
Over 2.5 million steps
7 States
849 villages
Abundant Joy and Learning

When I came out with my decision to undertake this walk, there were many, who love me, who openly told me I was crazy. There were many, I am sure who thought similarly in their hearts but chose to hold on to their opinions. There are still many who are intrigued and quiz me on what I have achieved and what now, that I have walked this distance. Honestly, each of us is on a quest and this was and will be a personal quest for me too. Weaving through the rich tapestry of our country, leading a life that is strange to me and embracing it with love, meeting people who are not part of my universe and making their stories part of mine - realising these visions have made me restless ever since the seed of the idea got planted in my mind over four years ago. It was spawned by an article on Priya Dutt walking from Mumbai to Amritsar with her father, Sunil Dutt. My subsequent research led me to discover so many others who had undertaken such journeys, more arduous ones - this gave me the comfort that I was not on an impossible mission.

I was running regularly three days a week until the 13th of November 2021 when I switched to walking. I began training by walking for 2 hours a day, moving on to 3 and then 4. I consulted a sports doctor to ensure I was fit to undertake this journey and also got tips from ultra-marathon runners on how to beat the heat, consulted a nutritionist to ensure the body is nourished and also had the advice from a fitness trainer on stretching and exercises. While on the walk, I did a pre-run warm up routine, a stretch at every break and a post-run stretch routine to avoid injuries and muscle fatigue. I made sure I took a rest day every week and had a routine for the rest day too.

The Last Stretch : A Symbolic Walk from Raj Ghat to Red Fort, Delhi

Informal Interaction on Design Impacting Lives and Common Building Practices, Palamu Region, Jharkhand

Design as a Career Workshop at Blooms Academy, Satna, Madhya Pradesh

A good idea planted at the right time becomes a magnet to attract all the goodwill and participation that is needed for its fulfilment. The idea of 'Walk for Arcause' brought in its share of well-wishers - the Council of Architecture and The Indian Institute of Architects who made this initiative their own and were an intrinsic part of the campaign. Boston Architectural College, NASA and INTACH also joined the walk almost immediately after receiving the proposal for partnership. It is indeed a happy coincidence that this walk coincided with the 20th year of Ethos and the 75th year of independent India. The last 2 decades of Ethos also have seen different partners who have seen value in what we do and have invested in our efforts. We believed that it was important to invite all of them to be a part of this journey - that is how we see 100 colleges of architecture and design, architecture firms, and industry partners walking with us. A team of four was put together to document and to manage the logistics of the walk on-ground. There was an off-site team that worked hard at curating some interactions and communicating my experiences to the world, while also seeking feedback and encouraging activities at an individual level or at an organisational level from people wherever they were.

Sketching Workshop with Children at a School near Alipura, Madhya Pradesh

While design changing lives and architectural social responsibility is stated as the intent of the walk - aligning with Arcause - Architects for a Cause and for the Cause of Architects, this intent is only a catalyst for a much larger objective. Architecture and design are central to lifestyles, to well-being, to healing, to connecting, to growth, to living and to life itself. However, the power of design can impact a lot more than it does today. This walk was a humble attempt to learn, to receive, imbibe and generate ideas from what I saw, heard and experienced through the stories of others. I walked in the hope that this will spur a lot more social and responsible action from all stakeholders. Specific presentations in a simple and interactive format were put together for different target audiences such as Mera Ghar, Design Changing Lives, Design as a Career, Learning from Nature with some of these sessions being planned and many being spontaneous along roadside, chai shops, dhabas and even homes of people.

A Vernacular Home near Palamu, Jharkhand

These conversations were an education for me. They highlighted the imperative need to contextualise and vernacularise design education. Policies and frameworks need to be built to encourage architects to work in smaller towns and villages. We need design and architecture as career paths to be more visible in villages and towns and one way of achieving this visibility is through training the teachers in schools, particularly government schools. A simple exercise as getting young children to visualise and draw their own homes saw some fascinating results on their observation and acuity.

Construction Workers, Hooghly, West Bengal

In Conversation with Rani Mistri - Sunita Devi, Latehar, Jharkhand

A Visit to Gwalior Fort, Gwalior, Madhya Pradesh

People also warmly opened up their homes to me. Brothers Vidyapath and Jagjeevan Singh from Bharra Village in Madhya Pradesh took me through a tour of their beautiful house which they had built themselves using local construction materials and techniques. Our nation's builtscape is rapidly changing where regional differences and identities are dissolving to give way to a monotone with no connection to the local. This repository of knowledge, often intangible, has to be recognised as heritage and means of documenting this wisdom is a task that needs to be immediately undertaken. As architects, we need to find ways of removing the tag "kachha " from these buildings which seems to be one of the reasons for this shift. The other being the perception that progress in life is linked to a home built with all the trappings of new materials and methods. As architects, we could play a significant role by finding ways to resolve issues that are faced by the older ways of building and encourage our more affluent clients to build buildings that will be role models for those upgrading or building new homes. Our government buildings also would do well to set the right examples.

Another matter of concern that came to the fore in my conversations with construction workers was the many layers between the architect and the construction worker. Often, the worker does not even know what his or her hands are crafting. In this scenario, it is unlikely for the worker to feel a sense of pride in what is being created. These construction workers could be our ambassadors. They could communicate the importance of designers to their families, to their communities in their villages and towns. For now, they believe it is the contractor or the engineer who designs a building and that is a sad reality we are responsible for too.

There were many organisations I was exposed to that are doing exemplary work and we need to strengthen them. Deepshikha, an NGO in Ranchi is working with the differently-abled. My interaction with them as well as with some differently abled people on the way accentuated my belief in the need to integrate inclusive and universal design in our academic curriculum. Modules for training faculty and practising architects are also essential so that inclusive design is homogenous with the process of design and is not seen as add-ons. I was delighted to be inspired by a woman-mason – A Rani Mistry, Sunita Devi in Latehar, Jharkhand. She is setting new benchmarks not just for women but for her male counterparts too. We need more such women on construction sites for women designers to be taken seriously too.

The route was dotted with many marvels of historical significance, big, small, known and unknown. The oldest and largest temples with a thatch roof at Antpur, a village in the Hooghly District, the terracotta temples of Bishnupur in West Bengal, the Palamau Fort in Jharkhand, the magnificent Khajuraho Temples near Panna, the Gwalior Fort, the Jhansi fort and the Jai Vilas Palace all fell enroute. The natural heritage of Betla and Panna are equal assets to our biodiversity and were a treat. Built in memory of Maharaja Chhattrasal's wife Rani Kamlapati, the Maharani Kamlapati Cenotaph exemplifies the rich Bundeli art with its interior decorated with foliage patterns made using fresco technique. Built over 150 years ago with certain sections going back as much as 300 years, the Alipura Palace is an enchanting monument now serving as a heritage hotel. In Madhya Pradesh, I interacted with a temple priest on the banks of the River Satna across which lies the Madhavgarh fort. I crossed many a bridge, old and new. This brings me to the gap we need to bridge between these old treasures and new ways of life While these gems need to be preserved, restoration can never be sustainable in isolation. A holistic development including the entire precinct, revitalising the public spaces around and ensuring benefit to local economies are key to a sustainable restoration project.

There are so many people I met along the way, who made me smile, who gave me the strength to keep going. Despite their worries and problems, some sang and danced with me, others interacted with such affection and yet others cheered me on. I left some conversations with a heavy heart, hoping to find answers to some of their issues with the involvement of my fraternity.

While the walk is over, for me it is but one step towards the change we could all achieve together. Until I reached Delhi, it was one day at a time for me. Now the job at hand is to bring together the various stakeholders that could be catalysts in making the difference that is required. Change is occurring at a furious pace and hence we need to act fast – to make robust and responsible action plans.

Dancing with Girls at Asha, an NGO based in Ranchi, Jharkhand

With 80 year old Jashoda near Dholpur, Rajasthan

An Engaging Interaction with Haryana Police at the office of Commissioner of Police, Faridabad

I believe that the big problem with us as a profession is not being seen enough. We do not showcase what we do and we do not do enough to impact lives and reach the masses. It is time that we got out there and solved problems. We need to use our prowess to impact more lives. I have seen how sustainable lives are led in nooks and corners of India. I have seen the three Rs being practised to the fullest. I have seen so many examples of Jugaad design solutions which are beautiful but often temporary and the problem surfaces again.

I am posing a few questions here that we could introspect on and find our ways of negotiating some of these intents.
How do we learn from their lives, their lifestyles and their problems?
How do we make ourselves accessible to the masses?
Should we not bridge the gap between the hands that build and the hands that design?
Can we design as a response to people's needs to solve their problems and not as per our convenience or how we would like them to live?
Can we allocate time and resources every year for pro bono projects - I know many firms who do?
Can we pledge to include at least one craft that is dying into our projects?
Can empathy become the soul of our practices?
Can we freely share our knowledge and experience so the goodness that comes from it multiplies?
Our communities need us to act. Our friends out there need our expertise. Many are fighting battles which design and architecture can help win.

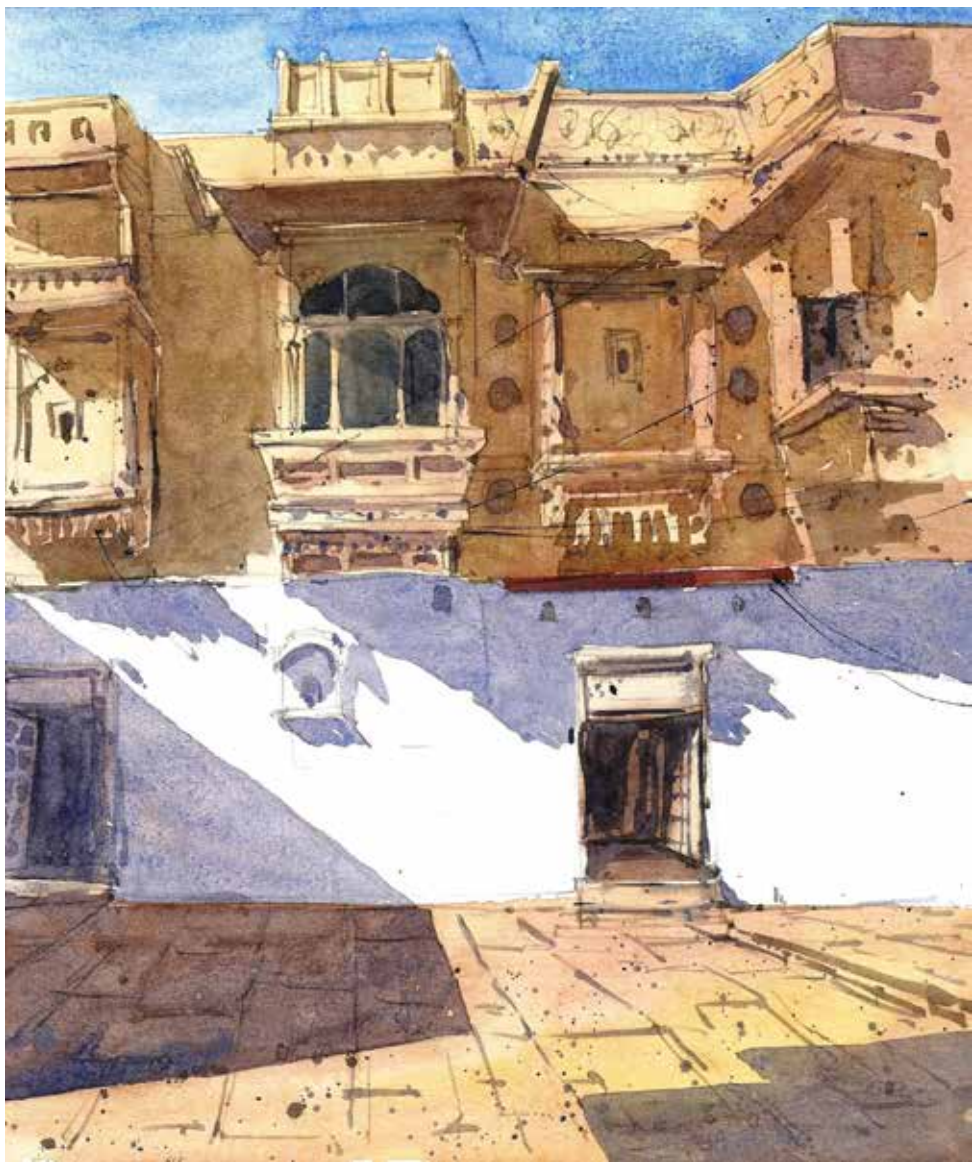
Ar. Gita Balakrishnan is a graduate from the School of Planning and Architecture, New Delhi. She completed her practical training at the Centre for Building Performance and Diagnostics at Carnegie Mellon University, Pittsburgh, USA. In 2002, she founded Ethos, an initiative to bridge the gap between students and professionals from the Architecture, Construction, Engineering and Design fraternity. Ethos will be completing 20 remarkable years in June 2022. To mark this milestone coinciding with 75 years of Independent India, she embarked upon a 1700km walk from Kolkata to New Delhi, to spread awareness on how good design can play a great role in changing lives.
gita@ethosempowers.com

SKETCHES

Ar. Anshul D Sinha

CDSA Campus , Pune

House, Kerala



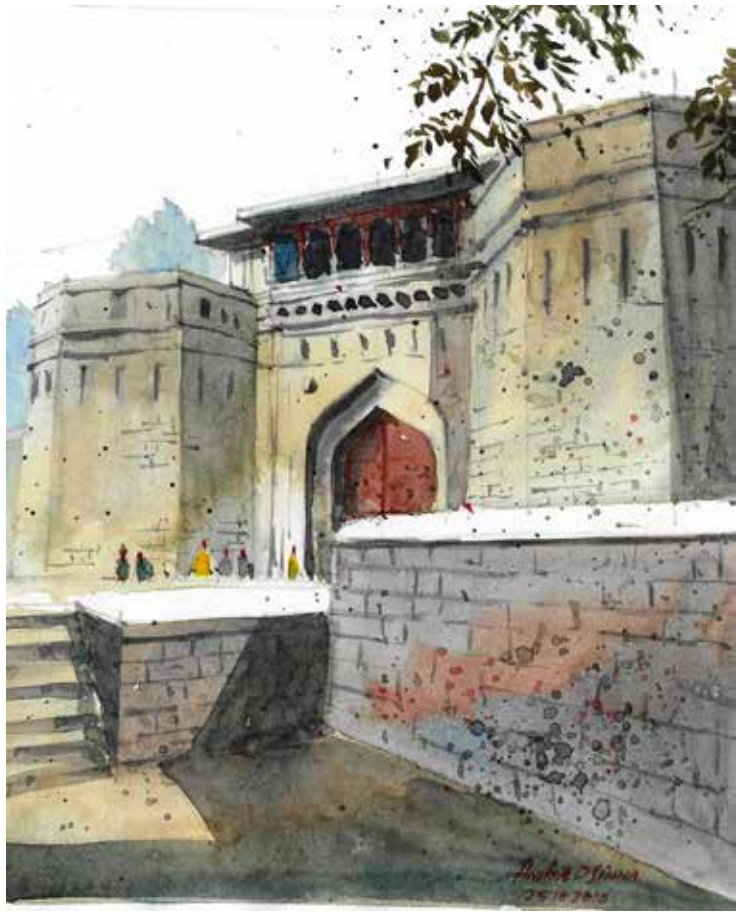
Jharoka , Jaisalmer

Door , Jaisalmer

Ellora Caves, Aurangabad

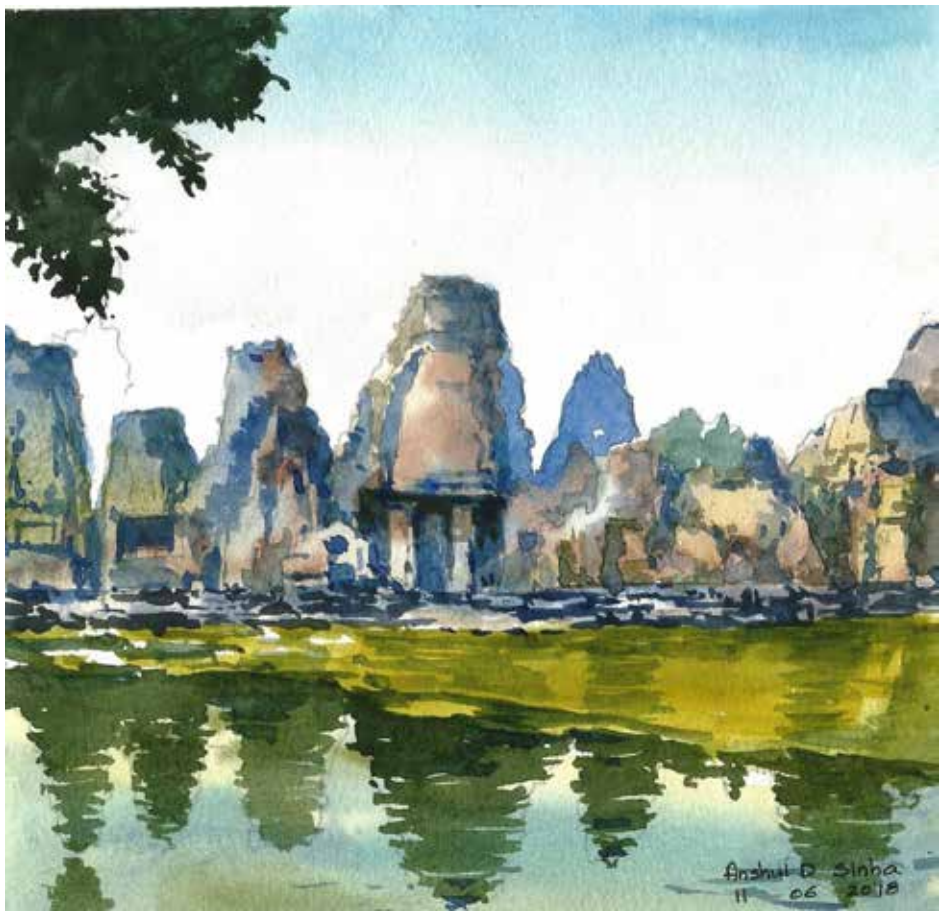
Vidhan Bhavan, Bhopal

Stone Chariot, Hampi



Shaniwarwada, Pune

Shore Temple, Mahabalipuram



Masroor Rock Cut Temple, Kangra

Ajanta Caves, Aurangabad

Ar. Anshul D Sinha is an architect and currently teaches at a college of architecture in Mumbai's suburbs. He has spent more than 19 years in understanding and mastering the art of architectural sketching and rendering. His portfolio of more than 2500 sketches is a testimony of his passion.

He likes to constantly experiment and explore different mediums. Today his portfolio expands with sketches in various sizes and mediums from simple pencil to felt pen, markers to watercolours and photo inks. This article features some of his watercolours of built forms.
tsap.anshul@gmail.com

TO THE OTHER SIDE OF TRAVEL!

Ar. Helly Solanki

Transformation of streets from busy place to uptown area

Buildings waiting for Dhaka muslin test

The world is a book and those who don't travel read only one page.
St. Augustine

Travelling is in my blood as I was brought up in a household that always kept its bags ready to launch themselves for a trip. I was six months old when I started travelling and haven't stopped since. I have measured the length and breadth of India. An exciting page is added to life, rich with culture, people and food with every trip. Being an architect has added an extra layer of understanding of places and their growth pattern. It also showed a bigger picture of the interaction of people and places.

I hail from Valsad, Gujarat. It is a small fishing town between a financial and textile capital, Mumbai and Surat. Until I stayed with my parents, visiting Delhi was almost a yearly ritual for the annual shopping for our shop. So it came with an assured trip to any place from there.

The trip at the end of March 2021 was more like a nostalgia trip reliving the good old childhood days. The chosen spots significantly, along with Delhi, were Rishikesh and Haridwar. Delhi acted as an anchor spot for onwards and towards the journey. I was pretty pumped to hog the food of Delhi, mainly its street food.

So our 17-hour long journey commenced from Valsad to Delhi via a 1-hour halt at Surat. We were blessed by non-seasonal rains and home-packed food with many hot tea and coffee cups. As the 2nd wave peak was nearing, our co-passengers were majorly people travelling to their hometowns around Delhi to leave their families as there was speculation that the 2nd wave was getting intense. Train journeys have always fascinated me; I never seem to get enough of them despite doing more than a century of trip voyages. The design of trains is so on-point that there is enough light falling to light up the whole breadth of the train, even in air-conditioned compartments. The train is always an eco-friendly and comfortable option for long-distance travel.

The next day, we arrived in Delhi in the morning around at 10-ish. The only thing on our minds was to freshen up

Isolated meditation area made of local materials overlooking into infinity to be able to connect to oneself

and gulp some good Delhi food. After getting ready at the Gujarati Samaj Hall in Delhi, we left to complete our first task. Gujarati Samaj Hall is exclusively made to cater to Gujaratis from all over the world. It is located in the Civil Lines, an area of Delhi where many high profile bureaucrats of India reside. It's a fact that it is named so as the civilians used to live in this area during British times. That era is still alive in the way the streets are planned in rectilinear lanes. Huge plots are lined with high compound walls housing huge abodes of the elite. These abodes adorned modern architecture yet were studded with tropical gardens around themselves.

Gandhinagar Market in Delhi was our first task point. Getting things done there was no less than getting a task done with the crowd, only giving fierce competition from Mumbai locals during its peak hours, while here it exists from dawn to dusk. The marketplace is exactly the opposite of whatever civil lines were. It is the biggest hub of wholesale readymade garments in India. Every clothing catering to events from weddings to death for all age groups irrespective of gender can be found here. One can be pretty much sure to get lost in this maze of identical shops overflowing with people and vehicles. Some buildings are so close to each other that only Dhaka muslin sarees would be able to pass this 'space test'. With rough roads, it's a bumpy ride for the claustrophobic. Somehow all the people in this area have found their peace in this chaos, working symbiotically as a unit. Food was the common thing shared with the rest of Delhi here. It is flocked by numerous restaurants where we can have the finger-licking chhole bhatures, chaats and lassis. While my dad was getting done with his work, my mom and I wandered around the streets, trying our best not to get lost. Dad's work got done only by evening. By this time, the tide of humans had ebbed, paving its way toward the most incredible transformation of this place. It might be expected by others, but it took us completely off-guard. Around this time, the packing of goods takes place and are loaded onto vehicles. On the other side, neon banners of the shops were lit up.

We made our way to Delhi's station to reach our next destination for the next task in Rishikesh, via Haridwar station. It was an overnight train journey. As the Kumbh was going on, the train was full of sadhus and other devotees, keeping up the religious spirit even on the train.

To reach the destination for the day, our next mode of travel was a bus from Haridwar. Rapidly-flowing and sparkling, the Ganges did not leave us even for a moment until we reached our destination. Our nest for the day required us to do a little uphill walk. It was a modern building, typically constructed, but with very bohemian vibes. My parents are quite a sport, who love to live their second innings with a hit of young vibe, which I introduced to them. We freshened up, rested and then headed to have our not-so-local breakfast. The food habits of this place have completely gone west, boasting more locations of continental cuisines than local. The only logical reason for this change was the massive influx of local and global tourists. Some come here to find calm in the form of yoga, while others come just to lose their calm by indulging in watersports and adventure sports. Rishikesh's alter ego is named Yog Nagri or the City of Yoga.

The task of the day was to visit the Beatles' ashram (also known as Chaurasi Kutiya). We embarked on our trek to the location via the primary market which was organically planned and houses that were in the midst of Himalayan flora. It was a 45-minute long journey, after which my parents very thoroughly considered disowning me. However, I carried forward the task while my parents chilled at the gate, which has a ticketed entry.

It is a complete universe in itself. This place deserves way more publicity than it presently has. I was wholly teleported to the time when this place would have been operating as a small self-sustaining community. It has dedicated meditation areas at the entry only to open to the remains of places that once housed kitchens, clinics, warehouse, etc. The last leg of this stop is at the buildings that could have been hostels at some time. It maintained a landscape area within the construction boundary leaving the rest for the wilderness to grow. The mediation area was one the most surreal spaces. Someone like me who keep on running away agrees to find peace here. There were segregated units, along with some in clusters. All the units are two-storeyed, cylindrical structures domed at the top. It has toilets, a small pantry area and enough space to house two people. Walls are made up of flat stones available on the riverbank filled with cement with a concrete dome limed with stones again. It was not in its prime condition but still has the charm to mesmerize people. Its scale makes one feel like a dwarf.

All the buildings here had a very unique identity. Significant portions of all the other structures are dilapidated, yet it would be tough for anyone to keep their eyes off them. It has exciting graffiti, some amazing quotes potent enough to race your thoughts into thinking about the world. A damsel in distress being rescued by a natural green-yellow army of trees and sunshine would aptly describe the place. Some places had amazing light falling on them with the backdrop of the forest, making it even more 'Instagram-mable'.

Two buildings from different era and materials. One speaks of life and other of the voids. Both in despair, but one still radiates peace while other story of eerie.

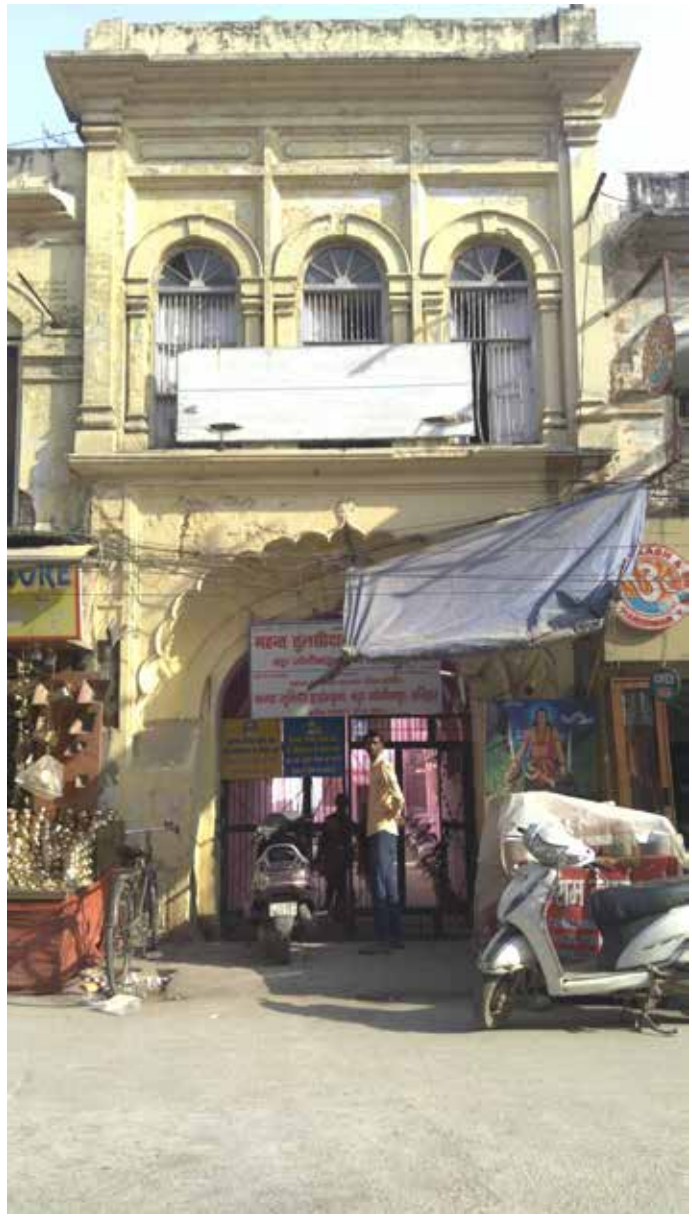
Spaces and walls talking of their past. Telling the story of what it used to be in earlier times. Once a thriving place, it now echoes the silence very loudly.

The drainage, interiors and chimney of the kitchen and partial spaces of other areas reflected the vision of how well designed this place would have been. These were ground-hugging structures with mostly sloping roofs and built in semi-modern construction. Residences were in the form of framed structured buildings. The last lag gave an eerie vibe, enough to scare me if I stayed longer. A lot of people flocked in to photograph this place, after which I rushed to my parents.

We went down a road leading to the river bank to immerse ourselves in the pure experience of the water. It boggles my mind how eerie and soothing places could coexist together. We tried to bow our heads down on an uphill temple on our way back. It was a modern building with a breathtaking view overlooking the whole of Rishikesh. Finally, a jeep ride came to our rescue, saving us from the tiresome walk to the city. The locals were selling stones, art, crafts and clothes on the way. We came across a few buildings around a hundred years old and some having interesting architecture. Unfortunately, it was some community bhavan and old temples which were closed during afternoons.

To be honest, I didn't expect to see such interesting buildings in Rishikesh. Also, I realized how some architectural pieces just get lost in the middle of so many activities. I also came across an interesting structure near the parking area. We had lunch at a Punjabi dhaba which had a very efficient open kitchen plan along with sitting areas. All of us were tired, so we decided to pause. We watched the sunset from our room, just to realise that so many people were involved in yoga on the rooftop in the Yoga Nagri. After that, we left our rooms only for dinner. Such an eventful day only filled us with more excitement for the next.

Old structures with very distinct architecture have interesting details - some in stucco, some in stone and wood. Their architectural identity is debatable.



Welcoming streets with rhythmic façades with jharokhas and jalis in different materials adorned with very intricate details.

After completing the usual daily human rituals, we decided to leave for Haridwar. The task of the day was to attend the Kumbh. I was very apprehensive about it due to COVID, while my parents wanted to make the most of this trip. On the way to Haridwar, there were a lot of sparsely-placed traditional structures till wherever we could see. I took a complete back seat as I was unsure what this place had to offer, and wait till this city took me by a complete surprise. The first stop was the hilltop temple accessed via ropeway. I don't know if it's just me or all of us love these miniature looking things.

After going down, I started noticing the buildings around me. They took me to the time when I would have visited Kolkata, Jaipur, and Agra, which have a particular flavour that would completely absorb you. Never expected this city to have such a distinct architectural identity, which is overshadowed by ghats and temples. It was majorly old dharamshalas which would have a massive gate, taking one into a courtyard surrounded by rooms on all sides. These facades are made of wood, stone or metal, with some jali work interspersed with an overlooking balcony. Irrespective of the material, all have very intricate and detailed carvings depicting floral and geometric patterns. It's not all hale and hearty; some buildings have deteriorated. Some are entirely replaced by modern facilities. The ground floor facing the road has commercial shops making the best use of mixing building typologies. These beautiful lanes led us to the ghat.

The Har ki Pauri ghat is famous for its evening aartis. A diversion is made in the flowing river lined by ghats, allowing people to have a dip and participate in the aarti. Ghats provide an interesting interface between humans and nature. It plays a crucial role in bringing people together towards

Welcoming streets with rhythmic façades with jharokhas and jalis in different materials adorned with very intricate details.

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we usually end up forgetting how little efforts by other people make others life comfortable. Some keep the place clean some capture moments.

Conserved, maintained, broken, mended, partially saved and completely replaced- such are the moods of building in the capital state

experiencing a grand spectacle in some places. It was lined by shops and hotels, majorly flooded by food joints. To enjoy the aarti at Ganga ghat happening at dusk, we need to grab a place on the steps when the stones are pretty hot from the afternoon heat. We secured our seats opposite to where the aarti would occur. There were exciting turns of events in which we witnessed the number of efforts taken by local people to set up this event. It would be an everyday task for some to wash the ghats. It's high time we started appreciating the actions taken by these people to maintain the place, which ends up playing a very crucial role in the experience. When the aarti started, people were largely interested in capturing it on camera than immersing themselves in the experience. We then filled ourselves with chaats, rabdi and jalebis up to the brim. The next day was waiting for us back in Delhi.

This time we located ourselves in Paharganj, the hotel hub in Delhi. Paharganj means 'hilly neighbourhood'. There are some ruins of old structures of the Mughal era that are seen on the periphery of the area, while the hotels are, in contrast, more of art deco or modern buildings. There are some old structures whose intricate designs are plastered or renovated to suit the new needs of the dwellers. It is quite a treat to explore the architecture of this busy neighbourhood.

By afternoon we headed to Sardar Bazar to complete the day's task. It was as crazy as Gandhinagar Market with added difficulty for vehicles. This is again a wholesale and retail market for different kinds of hardware and objects. The market complex donned either art deco, colonial or modern styles of architecture. In the evening we met up with my cousin at Connaught Place. This is high-end area of Delhi is its most happening spot teeming with restaurants, pubs and shops planned in concentric tiers of British colonial buildings. We ate some nawabi rolls, Delhi-chhap chaats and sipped some ice-chuskis. The day eventually came to an end.

And finally the next day, the trip came to an end. We boarded the train for our return journey in the afternoon. We had packed a Punjabi thali to satisfy our cravings on the way.

This journey was quite remarkable as it was a long leisure trip after spending a long time with parents. Some interesting observations were also drawn. Two faces of the city are almost prevalent in all the places we visited. They coexist and work well together without trying to overshadow each other. Instead of dismissing them, we need to start celebrating them. If we are vigilant enough, we will be able to find gems of the place that exist on every corner. We need to travel with open minds, hearts and eyes to surrender ourselves to the magic of travel completely.

Ar. Helly Solanki is an in-house content writer at Gharpedia. She also has side hustles of a sustainability NGO Dharinni. After graduating from MSU in 2014, she has been associated with COSTFORD, INTACH and SELCO. This educated her in different domains like sustainable, natural, low cost, cost-efficient, historic, humanitarian and social architecture. She is a passionate reader, traveller who loves to freeze memories in form of poetry or photo. hellysolanki.91@gmail.com

All images courtesy: **Author**

EMOTIONAL ARCHITECTURE: A NEW CONCEPT?

Ar. Ruchi Saxena

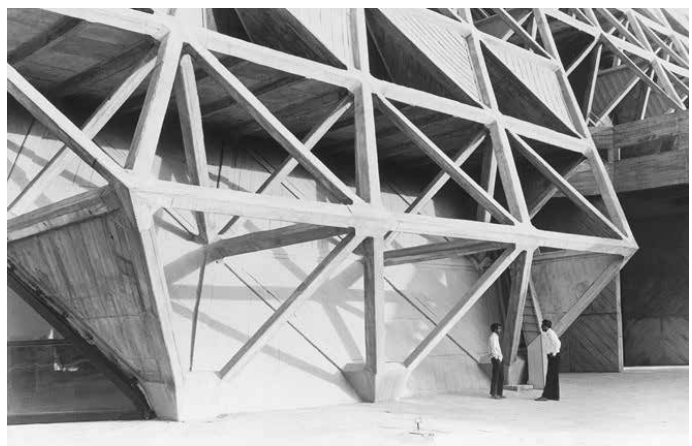

Fig. 1a-b: The beauty of the structure. The Hall of Nations (1972), New Delhi by Raj Rewal, now demolished
(Source: www.rajrewal.in)

A building is a mere construction if it fails to invoke emotions, and that building becomes 'architecture' when it positively does so!

I recently read an article about emotional architecture. The term 'emotional architecture' is attributed to Mexican architect Luis Barragán and sculptor-painter Mathias Goéritz, who together published an articulated manifesto in 1954, looked for spiritually uplifting buildings that would counter the sterile modernistic approach.

But weren't emotions always the premise of good architecture?

The Roman architect Vitruvius in his treatise on architecture, *De Architectura,* asserted that there were three principles of good architecture: *firmitas, utilitas and venustatis,* translated as durability (structure), utility (function) and beauty (aesthetics). So, good architecture is robust or structurally sound, useful and functions well for the people using it and should habitually be delightful and enable raising the spirits of people. On similar lines, V.S. Pramar in his seminal work, Design Fundamentals in Architecture (1973) emphasized the architect being a craftsman and elaborated how the craftsman was different from a technician or an artist. While the technician was more logical in his approach, his product/ result could be tested, the artist was more subjective. Subjectivity is based on or influenced by personal feelings, tastes, or opinions. These measures are therefore, often criticized and scrutinized as they are open to interpretation and opinion. While structure and function were the domain of the technician, aesthetics was the stronghold of the artist. An architect requires to be a good mix of both, and exhibit qualities of the logical technician and the emotional artist; he is a craftsman. Architecture is therefore, a study of both Science and the Arts. Accordingly, the course syllabus of a Bachelor in Architecture degree is a humble mix of 'technician' subjects like building materials and construction, architectural drawing and drafting, building sciences, estimation and costing etc., and 'artist' subjects like visual arts, psychology, human sciences etc.

When in the realm of arts and aesthetics, the study of the human psyche is imperative. The science of perception, how an individual view his surroundings and ultimately, the world, what are his expectations from the spaces he resides in, works in and plays in! And what makes these experiences exceptional. As Winston Churchill would put in, 'We shape our buildings and thereafter, they shape us!' Architecture has always had that ability to influence how you feel both mentally and spiritually.

Fig. 2: Form as a generator of emotional responses: Decidedly modified shikharas of the ISCKON temple, New Delhi trigger the same spiritual emotional responses as the traditional Hindu temple *(Source: Kanvinde, Rai and Chaudhary, 1998)*

A small exercise that usually kicks off my Architectural Psychology classes is to make first year students write about any building or place that they liked or disliked most and the reasons thereof! The purpose of the exercise is simple. Let new students start analyzing why they preferred a particular building or space more than others. What qualities make a piece of architecture worthwhile! But it also highlights a 'basics' of architecture, which we, architects most often forget. The answers are not architectural jargons, the new kids know nothing about space, form, movement, perception, etc. their answers are rather modest. They talk about spaces being overwhelming, exciting, peaceful, awesome, beautiful, crowded, confusing etc. And when they do so, they are talking about an emotion they experience when in that particular space. So, the Lotus temple is 'magnificent', the resort at Kerala 'serene and peaceful', the roundabouts of Lutyens Delhi 'puzzling', the local old market 'too swarming but lively'.

Invariably, when people talk about architecture, they use 'adjectives' to explain their understandings. Most of these adjectives are emotional adjectives i.e. adjectives that help express the tone, feelings and emotions of their words by accentuating the point. A direct conjecture is that any building or space evokes a certain emotion in the onlooker or the inhabitant. This emotion may be positive and trigger 'happy' hormones or negative, resulting in dislike and disdain. But whatever the emotion is, architecture has the ability to 'move' us! It elicits emotional responses.

From awe, wonder and an amazement at how small we are in the universe, to homely comfort, expressions of power, dominance and achievement or simplicity, architecture speaks to us. Every aspect of architecture, materials, textures, light, space, form, scale, colour, etc. can be modulated to elicit a specific emotional response. Interiors of bars and restaurants have shown how 'light' can be used to create active and passive spaces concurrently. Religious architecture has revealed how 'form' can be ingrained in the memory of people to elicit specific emotions of spirituality and holiness. Scale has been effectively used to evoke emotions of marvel or cosiness. The appropriate usage of materials and textures can clearly indicate attraction, wherein the user would want to touch, or rejection, too cold or uninviting. While discussions of structure and constructions often revolve around performance and technicality, construction eventually is about appearance and there have been ample examples where structure has evoked emotions of awe and astonishment, adding to the emotional character of a building.

As an architect, as Daniel Libeskind puts it, it's our responsibility to make a personal connection -- not just with the physical environment but how it triggers our memories and emotional responses. Hence, the term proposed by Goeritz, ideally, was not required to be coined. Architecture must connect and communicate with us on psychic and emotional levels, as well as visual and intellectual. However, many contemporary buildings fail to reflect the 'craftsmanship' as Pramar would

Fig. 3a: Water temple, Tadao Ando

Fig. 3b: Church of Light, Tadao Ando

Fig. 3: Experiencing architecture;
(Source: Ken Conley, kwc.org)

Fig. 4a: New Delhi

Fig. 4b: Gurgaon

Fig. 4: Buildings or Architecture? Boring 'emotion-devoid' buildings!
(Source: Source: wikepedia)

advocate. Architecture continues to fail! What are the reasons for this failure? Is it mass-production of spaces or a global economic system which puts profit above everything else, reproducing social and political conditions that undermine people's control over their built environment? Or the fact that architecture has been reduced to a spectacular imagery.

Or perhaps, the problem stems from the fundamental architectural design studio at the bachelor's level. Perhaps, though we teach our students that architecture is not only seen, but experienced! We don't ensure that they realise and start their work with an awareness of the emotional character of buildings. More often, students are seen spending maximum studio time working on the plans of the building: working out the area programme, creating functional linkages, working around building bye-laws and FARs, etc. And the form or elevations are done after that. Usually short of time, the aesthetic quality of spaces is compromised. So, the final product has a fairly resolved building plan, but no or minimum experiential value to it. Barring some colleges of architecture, and some students, most designs do not show any consideration to the emotional character of the building. In fact, subjects like Architectural Psychology or Appreciation of Art and Architecture do not form a regular course in most university syllabi.

The difference between an architect and a good architect is the capability to craft an elegant solution in a way so as to delight the user. As Le Corbusier once remarked, 'Construction is for making things hold together. Architecture is for stirring emotion'.

All architects should be craftsman. All architecture should be Emotional Architecture.

Ar. Ruchi Saxena Ruchi is an architect and an urban designer. She is an Associate Professor (Visiting) at School of Architecture, Lingaya's Vidyapeeth, Faridabad. Her areas of interest are architectural psychology and urban studies.
rucsaxena@gmail.com

NEWSLETTER APRIL

IIA-Karnataka Chapter

Condolence Meet

IIA Karnataka Chapter held an online Condolence Meet on 15 March 2022 in remembrance of Ar. Somashekar V. Dhotrad who passed away on 5 March 2022. The event was attended by many members who expressed their fond memories and dedications to the noble departed soul.

IIA Mangalore Manipal Centre

An Evening with an Architect

IIA Mangalore Manipal Centre organized their program "An Evening with an Architect" on 25 March 2022 at Hotel Ocean Pearl. Guest architect was Ar. Akshay Heranjal, principal architect of Purple Ink Studios. He presented four projects from the Mangalore-Manipal area and was followed by interaction with architects. The sponsor for the evening, Alstone ACP, also presented their product features, followed by fellowship and dinner. The event was attended by architects from the Mangalore and Manipal region.

IIA Mysuru Centre

Making Ideas Work

IIA Mysuru Centre in association with Marble Point, Bengaluru hosted an event on 25 March 2022. Ar. Dimple Mittal, Design Principal, MayaPraxis, Bengaluru, shared her valuable experience of over 25 years on "How to Make Ideas Work".

Beautifying Streets of Mysuru City

"The city is a canvas. Public art is an integral part of urban design"

In the endeavor of beautifying the streets of Mysuru City, students of architecture, took part in the wall painting organized by IIA Mysuru Centre.

IIA Medal for Best Outgoing Student 2021

The following students were awarded the IIA Medal for Best Outgoing Student 2021 from Karnataka :

- Shalom Aureole Britto of Manipal School of Architecture & Planning, Manipal University, Manipal, Karnataka
- Nehal Nagarjun of SJB School of Architecture & Planning, Bengaluru, Karnataka
- Dinesh Prasad of BMS College of Architecture, Bengaluru, Karnataka
- Shubham Lad of Acharya's NRV School of Architecture, Bengaluru, Karnataka
- Prakruth Yadalam of Dayananda Sagar College of Architecture, Bengaluru, Karnataka
- Prerana N T of NITTE School of Architecture, Bengaluru, Karnataka
- Ginelle Gabriella Lopes of School of Architecture, Reva University, Bengaluru, Karnataka

Ar. Akshay Heranjal at the event An Evening with an Architect on 25 March 2022 organized by IIA, Mangalore Manipal Centre

Ar. Dimple Mittal at the event Making Ideas Work on 25 March 2022 organized by IIA, Mysuru Centre

Audience at the event An Evening with an Architect on 25 March 2022 organized by IIA, Mangalore Manipal Centre

Audience at the event *Making Ideas Work* on 25 March 2022 organized by IIA, Mysuru Centre

IIA President Ar. C.R. Raju in the events of IIA Punjab

The Northern Chapters held a four-day event from 8 April, the INT-EXT Expo 2022 at the Punjab Agricultural University, Ferozpur Road, Ludhiana, and which encapsulated all facets of architecture. The events included knowledge-sharing, performances and more than 300 showcases which were attended by dignitaries from the state of Punjab. The venue and hospitality created lifelong connects and seamless networking under the leadership of Ar. Sanjay Goel. The event was planned by IIA Ludhiana Chapter and organized by the Udan Media and communications Pvt. Ltd.

IIA Punjab holds Northern Dialogues

IIA Punjab Chapter and IIA Ludhiana Centre, with an enlightening session of Northern Dialogues on the topic 'Architecture in Service of the Common Man', initiated a four-day long event at the smart city. This succeeded in creating conversation amongst the students, professionals, municipal authorities and bureaucrats and sparked insightful visions for the future of architecture. Presided over by Ar. C.R. Raju, President IIA, the event attracted many from the fraternity of architecture, planning, business and professional bureaucrats and national-level politicians. The event was graced by the presence of Mr. Pradeep Sabharwal, IAS- Commissioner Ludhiana Municipal Corporation & CEO Ludhiana Smart city Limited. The event witnessed some highly respected MLAs from Ludhiana. A presentation by Ar. Charanjit Shah was the main attraction of this event. The eight Chapters of IIA North participated actively through the endeavours of Ar. Sanjay Goel, IIA Punjab Chairman.

The event was attended by the office bearers across the north, from Uttarakhand, Patiala, Himachal Pradesh, Jammu & Kashmir, Bathinda, Jalandhar and Ludhiana. An array of technical and useful building materials were displayed over hundreds of yards. Selected products and services covering a plethora of concurrent client needs were vailed of by both, clients, architects and college students and faculty.

The appreciation from the IIA President, Ar. C.R. Raju who graced all ceremonies and events, including the gala opening of the *INT-EXT Expo 2022,* made all the hard work worthwhile. by IIA Punjab. Senior architects, Interior designers, stylists, artists, engineers, officers, builders, developers, exhibitors, teachers, students, media friends, family, all attended this four-day architectural festival of IIA Punjab.

IIA-Tamil Nadu Chapter

IIA Tamil Nadu Awards Ceremony

IIA Tamil Nadu Chapter organised the Awards Ceremony for the IIATNA 2022. Over a hundred entries were received and the various stages of Jury including the shortlisting of Architects, online presentations and final Jury were held and later culminated in the grand Award Ceremony that was held on the 30th of April 2022 at Hotel Accord Metropolitan Chennai. Around 150 Architects participated in this program and witnessed the presentation of Awards under various categories. Ar.C.R.Raju, President-IIA, presided the ceremony and presented the Awards to the winners. Ar.Senthilkumar K., Immediate Past Chairman of IIA Tamilnadu Chapter, was also the Convenor for IIA Tamilnadu Awards 2022. Ar.Kosalraman, EC Member of IIA Tamilnadu Chapter, coordinated this program.

Awards Ceremony

STATECON 2022

The IIA Tamilnadu Chapter Statecon 2022, hosted by IIA Chennai Centre, is to be held on the 19th and 20th of August 2022 at Chennai Trade Centre, Nandambakkam, Chennai. About 1000 delegates including Architects and Students of Architecture from across Tamilnadu and rest of India are expected to attend this event. Ar.Kurian George Vattakunnel, Chairman of IIA Chennai Centre, is the Convenor for the Statecon 2022. IIA Chennai Centre along with IIA Tamilnadu Chapter, invites all members from across the country to participate in this event. The event brochure will be released by the mid of May.

Workshop on ECBC & ENS Codes

The IIA Tamilnadu Chapter organised a software training workshop on daylight simulation for ECBC and ENS codes. The workshop was held on 23.04.2022, at the IIA office, Egmore. About 30 Architects participated in this program. The workshop was coordinated by Ar.Rajalakshmi, EC Member of IIA Tamilnadu Chapter.

Workshop for ECBC

Culture Click Contest

The IIA Tamilnadu Chapter had organised a Photography contest with the theme of capturing the culture of Tamilnadu. Several Members had sent in their entries and the winners were selected by a Jury comprising of experts from across Tamilnadu. Ar.Prasanna Pandian, EC Member of IIA Tamilnadu Chapter, had coordinated this event, The prizes were distributed to the winners at the IIATNA Awards Ceremony, held on 30th of April at Hotel Accord Metropolitan Chennai.

IIA-Kerala Chapter

16 project entries from IIA Kerala Chapter got shortlisted for the IIA National Awards 2020, out of which 4 projects got the winning entry and 1 received the commendation award. Recognising the growing proportion of women in our fraternity, IIA KC Gender Cell has started collecting database of women architects and understanding how women architects participate in the profession. The IIA Kerala State Awards 2021, hosted by IIA Kannur Centre is to be held on May 6th and & 7th at Krishna Beach Resort, Payyambalam with live presentations of 60 shortlisted projects. The event shall be inaugurated by Kannur Mayor Sri. T.O.Mohan. The exhibition of the shortlisted projects will be held at 8:30am on May 6th. The grand award ceremony will commence on May 7th at 3:45pm. The award ceremony shall be inaugurated by Shri. Pinarayi Vijayan, Hon' Chief Minister of Kerala. Shri. P.A.Mohammed Riyas, the Minister for Public Works Department and Tourism, Government of Kerala will grace the occasion as the Guest of Honour.

IIA-Maharashtra Chapter

IIA Brihan Mumbai Centre

IIA BMC-DD 2021

IIA Brihan Mumbai Centre had organized the Design Dissertation (IIA BMC-DD) Awards 2021 for the final year students of colleges of the Mumbai Metropolitan Region (MMR) to encourage a practical approach in their Design Dissertations. A total of 32 colleges participated with 58 entries, which went through a two-stage shortlisting process. The final 17 were evaluated by three prominent practicing architects of Mumbai: Ar. Salil Ranadive, Ar. Rahul Kadri and Ar. Abhin Alimchandani. The event was successfully conducted at Bal Gandharva Rang Mandir on 19 March 2022, where the winners and their guides and colleges were felicitated. The top eight winners are as follows:

Position	Name of Participant	Dissertation Topic	Representing College	Guide's name
1st	Rohan Joshi	Hatkarwadi : Water and Humans	Pillai HOC College of Architecture	Prof. Joydeep Dutta
2nd	Serah Yatin	Deciphering Play : Exploring Affordances in Social Housing	Academy of Architecture	Prof. Yagnik Bhatija
3rd	Meet Mendpara	Beyond the School Walls: Inclusive Environments for Life-Long Learning	Kamla Raheja Vidyanidhi Institute for Architecture and Environmental Studies	Prof. Sonal Sundararajan
4th	Aum Gohil	Apparatus of Amusement	Academy of Architecture	Prof. Neha Panchal
5th	Preeti Jaisinghani	Stories Captured in Time : Configuring the Landscapes of Kachchh.	IES College of Architecture	Prof. Prachee Velankar
6th	Utkarsh Verma	Hyper Resilience and Memory	L.S. Raheja College of Architecture	Prof. Mridula Pillai Gudekar
7th	Merwin Vincent	Multi-faceted Urban Centre	Viva College of Architecture	Prof. Ankita Shukla
8th	Stuti Joshi	Tracing Time : Perception of Time in Architecture (A case of Bhau-cha Dhakka)	L.S. Raheja College of Architecture	Prof. Mridula Pillai Gudekar

Visit to the Construction Sites of MMRCL Metro Station Sites

IIA Brihan Mumbai Centre had organized a visit to the metro sites where construction is being carried out under the supervision of Mumbai Metro Rail Corporation Ltd. (MMRCL) on 23 and 30 April 2022. The magnitude of the infrastructure, work, the number services/ agencies involved and co-ordination required to execute the project held many lessons for the IIA members who attended. These included practicing architects, students and faculty members. The locations of the six sites visited were Cuffe Parade, Azad Maidan, Mahalaxmi, Siddhi Vinayak, Bandra-Kurla Complex, International Airport.

IIA BMC-Design Dissertation Awards 2021 : The winning students with their guides and college principals with the IIA Brihan Mumbai Centre, Ar. Nilesh Dholakia and the jurors, Ar. Rahul Kadri, Ar. Abhin Alimchandani and Ar. Salil Ranadive.

IIA Brihan Mumbai members at one of the metro construction sites.

IIA Surat Centre

IIA Surat Centre is proud to share that one of their Executive Committee members, Ar. Dharmesh Mistry has been appointed as the Dy. Municipal Commissioner of Surat Civic Body.

ERRATA

We regret the misprint in JIIA, March 2022 in the President's Trail (pg. 112) : Women empowerment was at its best at the Utkal Diwas at Bhubhaneshwar with the leadership of Ar. Rajkunwar Nayak, Chairperson, Ar. Swapna Mohanty, Vice-Chairperson, Ar. Kirti, Jt. Hon. Secretary giving their best for the celebration of architecture. The Lifetime Achievement Award was given to Ar. Ratnamala Mishra, senior architects and members were recognized and the IIA medal was awarded to students of affiliated institutions. Cultural programmes were organized by the members.

WELCOME NEW IIA MEMBERS

6th Council Meeting Held Online 29th March, 2022.

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3	Ar. Choyan Icy Puthanpurayil	F15031	Kannur
4	Ar. Rajkunwar Nayak	F09751	Odisha

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2	Ar. Chitrarekha Kabra	F25230	New Delhi
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22	Ar. Irene Anna Shaji	A25253	Kerala
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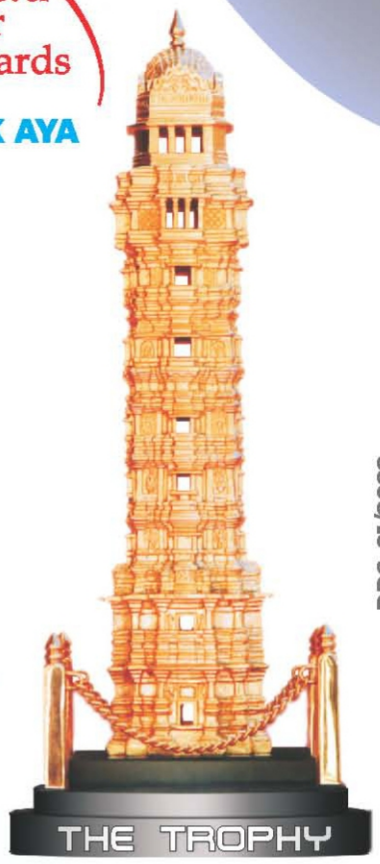
Eligible Status/UT: State by Rotation



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