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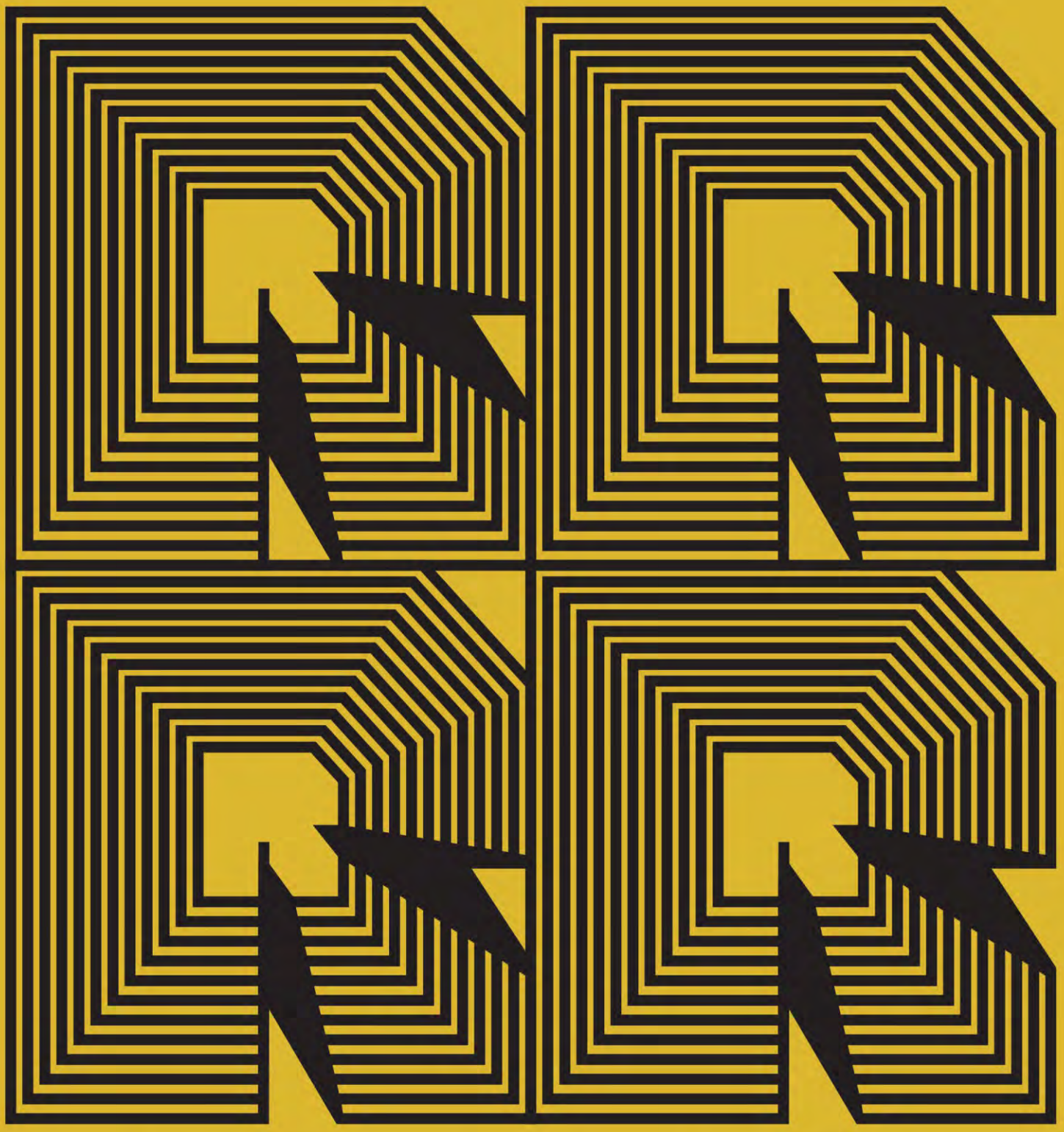

RESILIENCE

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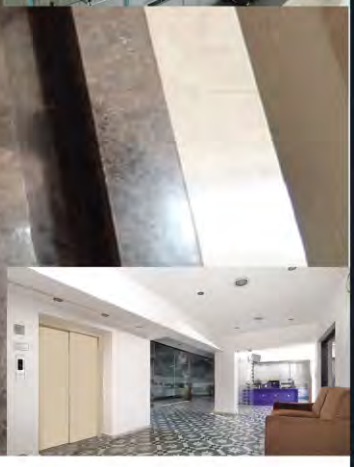

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EDITOR'S NOTE

"Life doesn't get easier or more forgiving,
we get stronger and more Resilient."
STEVE MARABOLI

Welcome to the April '21 Issue of JIIA.
The theme for this Issue is RESILIENCE.

Thanks for the encouraging feedbacks and suggestions received for the March '21 Issue!

Humanity is going through a period of unimaginable changes, due to the pandemic. Each day we seem to be grappling with a new situation. We are slowly in the process of evolving a new normal, which in itself seems to be morphing based on the course the pandemic is taking worldwide and specifically in our country too. As architects, we need to act as the torch-bearers for these changes in our day-to-day lives, both in private and public spaces. Today we hear a lot about 'social distancing' but we need to evolve social connections, with 'physical distancing'.

We know that we can't design to deal with such unpredictable events like the COVID-19 pandemic, but we have to make sure that the spaces that we create are able to weather these disruptions and bounce back. We already have huge problems created by climate change and depleting resources. So resilient design is not optional any more but the need of the hour for our survival. While COVID-19 is a grim reminder of the need, for us as a community, to build resilience, this is required for us to surmount so many other issues that are socio-cultural, environmental, economic and also those pertaining specifically to our fraternity.

Various features in the Issue are focussed on the theme RESILIENCE.

We are carrying the winning entries of the JK Cement Awards in this Issue, in a dedicated section.

On behalf of the Editorial Team let me thank you for the enthusiasm shown in contributing for the Journal. We look forward to getting many well-researched and thought-provoking perspectives by architectural thinkers in various aspects.

Let us build RESILIENCE in IIA and through IIA.

COVID-19, in its second wave, has turned out to be more dangerous and fatal. With great sorrow we mourn the sad and untimely demise of National Council Member Ar. Virendra Agarwal and some of the members of our architectural fraternity.

We appeal to all to be cautious and safe.

Ar. Lalichan Zacharias
Editor

Ar. Lalichan Zacharias

Ar. Gita Balakrishnan

Ar. Brijesh Saijal

Dr. Shilpa Sharma

Ar. Manguesh R. Prabhugaonker

Ar. Mukul Goyal

Dr. Pratheek Sudhakaran

Ar. Tushar Sogani

EDITORIAL TEAM

PRESIDENT'S MESSAGE

Greetings!

The March Issue must have reached all of you. The Editorial Team's effort under the able guidance of Ar. Lalichan Zacharias, is very much evident in the reformatted Journal in both content and presentation. The Team will be encouraged by your inputs and contributions in the forthcoming Issues. As always much more can be done.

It appeared for a while that the situation was improving, showing signs of activity and economic improvement. There seems to be a sudden change, as the second wave of COVID has led to more health issues necessitating critical care. Our entire perception of life is changing with the unpredictable nature of this pandemic. The loss of some of our members is very painful. Our prayers are with their families. We have to be cautious as health and safety is of utmost importance, making everything else secondary. The information about the efforts of our members in providing solace and relief is noteworthy.

The JIIA correspondents of each Chapter are a resource which can channelize the good projects, articles and information from their Chapters for publication. They can encourage our members in documentation of their works. It is heartening to know that many of our young architects are doing commendable work. This needs to be identified and brought to light through our correspondents, to encourage such efforts, especially in sustainable architecture, low-cost housing, public spaces, diligent use of natural materials, etc.

The thematic approach to each Issue is a new beginning. This month's theme of RESILIENCE is contextual to the prevailing situation. The Indian psyche has always imbibed the strength required to face adverse situations in our long history and we shall also tide over the present crisis looming over us, with resilience and diligence. It is encouraging to see that in spite of adversity people are exploring viable alternatives for sustenance of livelihood, business or profession. The priority now is to stay safe and healthy and also help those in need around us.

As this challenging time continues, it is a time for us to reflect upon the value of our traditions, new strategies and economics of running our practices, effective delivery of our services, online academics and its effect on students and careful use of our resources to sustain the scenario which constantly keeps changing. Let us hope with confidence and alacrity.

With Best Wishes
Ar. C. R. Raju
President, IIA

Ar. C.R. Raju
President, IIA

Ar. Vilas Avachat
Vice-President, IIA

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Ar. Divya Kush,
Immediate Past President

TRIBUTES

Ar. Virendra Agrawal
February 14, 1960
– April 25, 2021

Member,
National Council of IIA

Ar Virendra Agrawal was a man of few words and an enormous smile. He won people not with arguments, but with his smile. Born in a moderate business family of Lucknow, he was an alumnus of the Government College of Architecture, Lucknow. He became Associate of The Indian Institute of Architects by passing its exam in 1988. Before starting his own consultancy firm, Virendra Agrawal and Associates in Lucknow, he served the Uttar Pradesh Housing and Development Board for a couple of years. Along with his architectural practice, he later diversified to drug manufacturing of Ayurvedic medicines, with the name Amity Healthcare Pvt. Ltd.

Having been a past president of the Rotary Club, he was actively involved in social service through the Rotary Club and of Lucknow, Baradari, providing books, stationery and medical help to certain schools and under-privileged children.

He was an enthusiastic participant in the activities of IIA for over three decades. He served the UP and Uttarakhand Chapters of IIA in various capacities and was the Chapter Chairman of IIA Uttar Pradesh. He had organized Natcon 2010 at Lucknow, the UIA Council meeting and the Architects Mahakumbh in November 2018, which was the first ever program of UIA in India. At the time of his passing, he was a Member of the National Council of IIA. Ar. Agrawal was fond of travelling and photography. He organized several educational programs in various institutes of architecture in Uttar Pradesh and was very helpful towards students of architecture, especially those pursuing IIA courses, to become associate members of IIA.

An empathetic friend, he shall always be remembered for his cooperation, enthusiasm and his welcoming and reassuring smile. He is survived by his architect wife, Ar. Hema Agrawal, their son and daughter-in-law.

Ar. Ashish Ganju
(5 May 2021)

Architect and Teacher,
President, GREHA, New Delhi

Munishwar Nath Ashish Ganju who passed away on 5 May 2021, was a graduate from the Architectural Association School of Architecture in 1966. He returned to India in 1967 for higher studies and had since been researching through teaching and practice. He had taught at the School of Planning and Architecture, and the Indian Institute of Technology in New Delhi. He was founding Director of the TVB School of Habitat Studies, New Delhi, Visiting Professor at the University of East London, UK and the Universita IUAV di Venezia, Italy.

Based in New Delhi, he worked on the urban fringe to demonstrate the principle of urban renewal by citizens. His practice took him throughout the Indian sub-continent, including Afghanistan- first as a consultant to UNICEF and the Governments of India and Afghanistan, and later as architect planner for buildings and campuses for public institutions. He also worked with the Tibetan refugee community in Dharamsala towards the research and practice of sustainable architecture in the Himalayas.

He was a member of several committees of the Government of India, including the Committee to Advise on Maintenance and Modifications in Rashtrapti Bhawan New Delhi, and the Ministry of Urban Development's Committee for Redevelopment of the Lutyens Bungalow Zone New Delhi. He had won several prizes in national and international design competitions.

He had co-authored a theoretical essay with Narendra Dengle, *The Discovery of Architecture—A Contemporary Treatise on Ancient Values and Indigenous Reality* published by GREHA.

COMMENTS FOR JIIA MARCH ISSUE

"What a maximal makeover! JIIA in its new avatar is modernistic, crisp and contextual. Besides the enriched substance, its new layout and production quality position it worthy of our fraternity. Congratulations, you've ticked all the journalistic boxes! Keep them coming."
Ar. Yeshwant Ramamurthy, Hyderabad

"I have received a copy of IIA journal (March Issue) and it gives me great pleasure to inform that the special tribute journal is a very contemporary and focused approach on architecture. Curated and orchestrated by a good team, I am sure the monthly journal in print and online, would bring forth exposure to ideas and research documentation shared by eminent architects and scholars. I look forward to an energetic and purposeful journal which will again create its own niche and bring a new dimension in the field of Architectural journalism. Kudos to you and your team!"
Ar. Vivek Sabharwal, Director, Apeejay, Noida

"The IIA Journal beautifully produced. Bravo."
Ar. Bijoy Ramachandran, Bangalore

"Congratulations to the Editorial Team of IIA for the wonderful first Issue of the Journal, bringing changes and innovations in materials, presentation, composition, printing and formatting– ushering a new era in the Journal. Hope it grows with wider acceptance in professional and corporate circles, giving new recognition to IIA."
Ar. Jit Kumar Gupta, Chandigarh

"It is thrilling to see JIIA, the mouth-piece of IIA, undergo such drastic changeover. The first and foremost requirement of a journal is its contents. This is amply proved by the cross section of articles covering professional as well as socio-economic issues. Moreover, the composition, graphics and formation of the Issue has definitely enhanced its richness.

The concept of using the twelve letters of the word ARCHITECTURE is unique. The issue is well segmented for its in-house messages, articles, travelogue and newsletters. I extend my sincere congratulations to the JIIA Editorial Team as well as the President, Office Bearers and Council Members for uplifting the IIA platform."
Ar. Paresh Kapadia, Mumbai

"The Journal is truly amazing. It has certainly brought in the long overdue whiff of fresh air! This new, almost fully overhauled edition makes it truly professional. As a Journal which also serves as a national mouthpiece for the fraternity will keep every architect's head high."
Ar. Kurian Abraham, Cochin

"Smart, intelligent and innovative. Frankly speaking, liked it very much."
Ar Sanjay Goyal, Chairman, Punjab Chapter

"Glad to see the re-vamped version. It's a definitive leap in terms of its production, layout and content. Congratulations to the entire Editorial Team. Thank you for the well-articulated review which it grasps and expresses the essence of my book. Look forward to seeing more in the future issues."
Ar. Shirish Beri, Kolhapur

"This is wonderful work. A very nice magazine. Congratulations."
Ar. Sanjay Mohe, Bangalore

RESILIENCE

By Ar. Manguesh R Prabhugaonker

Both the natural and built environments undergo challenges from natural and manmade disasters and disturbances resulting from pressures and issues linked to climate change. A review of all such ground realities makes us revisit the current strategies in planning and architecture which focus primarily on resilience. Concepts of resilient designs and good practices with an intentional approach towards our buildings, landscapes, communities and regions, carried out in a holistic manner is the need of the hour that we as architects have to envisage for the next generation as our social responsibility. As architects, we prioritise aesthetics to a high degree and integrate functional criteria in our designs. We incorporate double safety measures towards structural stability and make them compatible for region-specific disasters. Along with these, it's equally important to address the health and happiness of people associated with the built and natural environment, with an appropriate happiness index. This creates a need to re-invent the resilience of development.
In today's world where architecture, landscape, urban design and infrastructure have all become integral to a comprehensive design, it's critical to see how one measures the level of resilience of the architectural design, reflected through maximum efficiency and minimum damage. Broad perspectives of resilience in architecture are dependent on the strengths and opportunities that help us make changes and transformations towards our environment. These revolve around ecology, ecosystems, hydrology, biodiversity and many more aspects of eco-sensitive strategies and their impacts. The pressures resulting from various pollution levels, both of air and water, carbon footprint, emissions and many more naturalist disasters cause vulnerable regions around our development. Arts and humanities with sociology, economics, linked with engineering and other aspects dependant on environment, all need a superimposed layer of resilience that will highlight a 'people first' policy through architecture.

"Let us green the earth, restore the earth, heal the earth."
IAN MCHARG

Findings from the analysis of the environmental impacts assessment creates a need for architects to be aware of the ground realities of the levels of resilience in terms of both short term and long term schedules which can decide on the lifespan of the development. Resilience-based design and planning guidelines with special focus on long-term and short-term goals needs a comprehensive implementation plan of co-inventing built environments with the universal agenda of recreating resilient strategies in architecture and planning with a focus on community health, liveability and well-being of urban and rural areas. Resilient planning and development and implementation will rely on architects understanding effective governance, clear communication and widely-understood implementation strategies. Along with specific research initiatives, our levels of preparedness also need to be strengthened to overcome impacts of natural disasters and challenges of current pandemic times and also face future disasters.

"Sustainability is no longer about doing less harm.
It's about doing more good."
JOCHEN ZEITZ

Development across urban and rural areas always activates nodes that generate economic, social and cultural exchanges. Modern-day works in terms of resilience is a challenge and a concern for its survival. Concepts of sustainability, inclusiveness and an integrated growth-oriented approach needs an outlook by the architects with their innovations and overlays of planning techniques in terms of making our practices resilient, and those that can adequately respond to future trends.

Reverse Migration
Reverse migration, from urban to rural areas, in contrast to movement from rural to urban, poses the need of a dialogue to formulate newer resilient design guidelines and policies—to either decentralise or to create policies of urban renewal for such economy-based development. This has to be addressed through architecture which is people-friendly, sustainable and revenue generating. The framework of global scenario and local challenges, tackled using available resources, including factors like sanitation and water management, infrastructure and energy efficiency, urban mobility, social affordable housing, heritage and culture, urban health, and many more. Socio-cultural and architectural identities and the economic aspects with mitigating measures are always a challenge while creating resilient environments through architecture. Emerging architectural typologies are a concern and pose questions about transformation, especially with reference to architecture identities, which could easily be evaluated by concepts of landscape urbanism and its resilient trends for the future, with climate-responsive architecture strategies.
During the implementation plan, architects are bound to

have a strong dependency upon technology and automation with futuristic SOPs. These will soon get integrated to our ways of living as newer guidelines are formed, respecting the natural environment and challenges of conservation and preservation of nature linked to it.
Architectural education and the profession, both need to be reviewed with resilient, futuristic strategies. As part of socially-responsible architecture, with a resilience-centric agenda, we need to move on with a 'design and implementation' plan towards a healthy built environment, aiming towards a resilient India, with respect to the natural environment, with a comprehensive and collaborative effort to introduce and formulate design guidelines, as a resilient tool, towards strengths and opportunities in our emerging architectural vocabularies and strategies.
Architects, through their practice with various programs and procedures, must ensure and minimize the impact on nature and enable design solutions that anticipate and incorporate functional and operational factors of resilience achievement. When designing for resilience, site selection is one of the most critical levels of resilience with impacts of and on the surrounding community, particularly with regard to basic infrastructure and services such as transportation and deliveries, public and private utilities. Climate-responsive architecture, which specifically integrates the sun, wind, rain and others, could play a vital role with its application and integration through architecture solutions in design. With current practices on the culture of sustainability in our building industry, resilient and sustainable architecture and planning through creative strategies, always emphasize energy conservation, water resilience and carbon footprint reduction. These are all reflected in project-based solutions that deliver measurable results, customized for each client and project. A culture of sustainability, through our designs, needs to focus on the amounts of energy that is produced on site, with net-zero energy, and also upon a collaborative vision of conserving our planet's precious resources.

"The future is green energy, sustainability, renewable energy."
ARNOLD SCHWARZENEGGER

Our proactive approach to sustainable, resilient design cannot be restricted only to explore what LEED ratings the client wants. Instead, its practice and application with better efficiency-based solutions and policies will form a link between sustainability education in the school's curriculum. This is also an important way forward, with a focus on climate change and health of both, people and buildings. Resilience through architecture gives us the greatest opportunity to improve lives. A framework could be generated with region-specific areas, by every architect, through their practices and integrate the following objectives in contributing to an emerging India:

► To improve the quality of life with good urban design. This consists of parks, neighbourhood level community gardens, open spaces, efficient land management and increasing green areas. Making cities and villages sustainable, smart, well-planned, productive, effective and efficient, as better places to live in, is critical.
► It is time to view cities and villages in all five dimensions—length, breadth, height, volume and time—to make cities energy efficient and sustainable by designing green buildings. Pre-define the personality of architectural language through state-of-the-art design of buildings.

► Proper and efficient management of waste disposal systems and appropriate sanitation.
► Intelligent buildings which utilize power generated through solar panels, wind turbines, etc., with strategies for energy conservation and building economics.
► Make places healthy by designing buildings with high indoor air quality.
► Bring about flexibility in the planning of cities and villages by bringing a variety to the built environment.
► Establishing waterfront areas and creating artificial water bodies to create a micro climate and reduction in temperature, according to the climate it is used in.
► Need for transportation with smart mobility systems and multi-model transport systems that increase the connectivity between places and emphasizes the use of public transport.
► Planning strategies for curbing carbon emissions through the building's footprint.
► Public-private partnerships, and policy change will make a difference, and to engage citizens by educating them and increasing awareness. Active involvement as stakeholders is an integral part of city and town planning or other development processes.
► At the grassroot level, individual buildings or people or communities need to be active, healthy and productive.
► To make the city operationally cost-effective and efficient.
► Architects can make cities and villages beautiful by integrating art and humanities with architecture and urban planning, with respect to the context of town planning, to make it sustainable and resilient.

As architects, we need to always put people first, through resilient design solutions and policies in architecture.

SOCIAL INTERACTION IN THE TIME OF SOCIAL DISTANCING

EXAMINING THE RELATION OF INFORMALITY AND URBAN FORM

By Anubandh Hambarde

ABSTRACT

The pandemic induced by COVID-19 virus has triggered the debate on reasons of rapid virus spread in cities. Since personal contact was the primary reason for virus spread, many countries in the first half of 2020 imposed a complete lockdown of cities and closed all public places. This paper looks critically at the relationship between housing form, social interaction and informality at the time of such lockdown and social distancing. The paper has collected data in Pune city between April to August 2020 by applying the qualitative method of structured interviews and public observation. The data collected is analysed from the framework of exchange, trust and locality knowledge to reveal how residents of four diverse housing forms received their daily supplies from informal businesses. During lockdown, Indian cities faced challenges of economic crises and residents struggled to obtain daily supplies. The plight of informal workers was epitomised by the exodus of labours from many large cities of India. The paper refers to the theory of D-System, economy of cities and informality to discuss the important yet forgotten contribution of informal workforce in building, running and helping the cities to survive a catastrophic pandemic. The paper concludes by establishing the relation of formality of housing form with formality of social interaction. The data also indicates that informality is the critical knowledge for urban planning of Indian cities and the housing form which promotes informality leads to more sustainable urban form and builds a cohesive society. These conclusions are expected to be a critical contribution for further research to build epistemological concepts on informality in city planning and housing form to survive any such future catastrophe.

PANDEMIC AND DENSITY

Urban density is a widely debated topic especially in cities having socio-economic polarity with quite a few opposing views on the relation of density and environmental sustainability (Aquino & Gainza, 2014). During the first few weeks of the COVID-19 outbreak, high urban density was considered to be the prime culprit of virus spread since many past epidemics established the correlation (Desai, 2020). Data released by Government of India reveals that the three states of Maharashtra, Andhra Pradesh and Karnataka that had the highest number of confirmed cases of COVID-19 infection are also some of the highly urbanised states of India. On the other hand, West Bengal has the highest density of 1100 persons per square kilometre and has a low urbanisation rate of 27per cent (Census of India, 2011) and is placed at 9th rank among the virus-infected states. The data does not appear to indicate a correlation of COVID-19 virus spread and urban density in large geographies. It seems that the active virus control measures of screening, testing, isolation, social distancing and the time-bound lockdown have a higher impact on infection control while factors like density and urbanisation contribute in the effectiveness of such measures. Dharavi, the largest and perhaps one of the densest slums in Mumbai where epidemics are very common, offered great learning in pandemic control. Down To Earth reports a tremendous contribution of proactive screening and isolation in controlling the spread of the virus in Dharavi slums (Kaur, 2020). A similar story was reported by local newspapers in the slums of Parvati hillock in Pune though with a lower success rate.

THE INFORMALITY OF THE EMERGING URBAN FORMS

The COVID-19 spread has been attributed to personal contact and countries of the world took measures such as social distancing and time-bound lockdown. Despite the existence of internet technologies, social interaction remained an essential mediator for economic activity in the global south. Jane Jacobs (1968) argued that small businesses flourish in cities through locality knowledge and trust gained through social interaction. Though her theorisation is in context of developed economies of the global north yet it resonated well with cities from the global south. Robert Neuwirth (2011) asserted that System-D of informal businesses has much larger share in the wealth of nations than the formal businesses.

Informal economic activities are substantially supported by the web of interconnected human networks in traditional urban form (Ruzek, 2015). Such urban forms are quite rich in their economic mix, extreme density and diversity and provide a flourishing platform to emerging micro-entrepreneurs. In the recent past gated communities have emerged as the most desired urban form of living and have infused a monoculture of human society. On the other hand, urban forms which have emerged traditionally allowed greater dialogue between consumers and suppliers where each consumer was also a supplier of goods or services to the other consumer. Therefore, it is a matter of great interest to see how starkly competing housing forms have facilitated social interactions required for economic sustenance in time of social distancing. This paper will bring forth inequality of opportunities and access due to lockdown faced by informal businesses variegated by the housing type and the resultant urban form.

EXCHANGE, TRUST AND URBAN FORM

Pune, located in the western part of India within the state of Maharashtra is a city with great historic significance where a rich educational, cultural and traditional life has been juxtaposed with modern work centres of information technology. The city rapidly expanded in the decades of 1990s and 2000s. Pune has diverse urban forms ranging from a historically urbane core city to semiformal and informal settlements, to very elite and aspirational housing on the hills and the lakes. Considering the diversity of urban forms and city being among the top five COVID-19 infected cities in India, Pune was selected to study the economic sustenance offered by the informality of urban forms. Telephonic interviews were conducted with residents from April to August 2020 in order to explore how informal economic activities were supported by social interaction in sustaining daily supplies of essential goods. A set of interviews was conducted with personal acquaintances residing in diverse housing type in the city and was divided into four broad categories of housing forms: Gated housing; Low-rise housing; Semi-formal housing; and informal housing/slums.

The importance of social interaction for getting the supply of daily needs was discussed to know the level of hardships faced by the residents. Another set of interviews was conducted with formal/informal vendors to explore how locality knowledge enabled them to maintain trust among their customers during COVID-19 virus spread. The qualitative data brought forth few themes and revealed the intricacies of inequality in Indian cities:

❶ Gated Housing: The residents of gated housing had a nominal loss of income and sustained their purchasing capacity at the pre-pandemic level. Recognising this, the informal suppliers and farmers joined hands to

offer doorstep delivery of vegetables and food grains to the gated communities. In the process, farmers and residents got mutually benefited even though this arrangement was not without inherent risks of virus spread. Recognising such a risk, a few individual residents collaborated with their community and kinship from their native villages to supply farm produces through neighbour's networks. Moreover, even after supplying the essential commodities to the residents, the suppliers remained faceless since the gated housing societies have no possibility to provide any space to the suppliers for appropriation. In the case of large townships, where shopkeepers and suppliers were also the residents, the interaction was far more intense due to mutual trust. Gated housing societies in-spite of being heavily dependent on farmers' direct supply, frequently displayed tendencies of mistrust to unknown suppliers and trusted the recommendation from neighbours.

❷ Low-Rise Housing: The low-rise housing communities evolved ways of social interaction in the time of social distancing. Daily needs were provided by formal shops within the housing cluster and residents did not travel more than half-a-kilometre to access them. Residents of low-rise housing societies initially barricaded internal streets and stopped movement but later trusted people from other housing clusters to come and shop for daily supplies, despite the risk of virus transmission. Such acceptance allowed new informal businesses to emerge and successfully conduct their business. The virus transmission was controlled by effective implementation of distancing norms by shopkeepers elevating the trust among residents. The shopkeepers observed physical distancing norms very intensely and took measures such as rope barricades, paving markers and made hand sanitizers available for customers. The effective use of distancing measures and allowing controlled interactions helped both formal/informal shopkeepers to reduce income loss and residents to receive daily supplies.

❸ Semi-Formal Housing: Intricately weaved and active socio-economic networks of semi-formal housing clusters informed a very unique way of sustaining social interaction while maintaining distancing. Attributing to its diverse mix of work opportunities, the housing cluster functioned like a trading campus mingled with residences. Many residents contributed towards the supply of services or goods that are consumed by community, elevated by locality knowledge and mutual trust. In the time of the pandemic, the locality knowledge and trust enabled vegetable vendors to visit every doorstep for sale while dealing with one customer at a time. This doorstep vending was conducted by the vendors, who were in many cases, residents of the cluster. The prevalent practice of doorstep interaction without stepping out of the house strengthened the distancing measure. Mutually visible balconies, closely spaced terraces and shared street spaces worked positively to maintain distance. The locality knowledge heightened mutual trust and enabled residents of semi-formal housing societies to interact for social and economic activities with minimal contact with each other.

❹ Informal Housing/Slum: A complete lockdown worsened the situation of residents of informal housing by reducing their income sources and depriving them of daily supplies. The initial complete lockdown made residents of informal housing panic and the major exodus of migrant workers was visible from the peripheries of the city. Government and non-governmental organisations were mobilised to create a supply chain for the distribution of free food. Due to unhygienic conditions, the residents of such housing were quickly blamed for the spread of the pandemic and many such housing clusters were marked as containment zones by city authorities. Such a response from authorities crippled the network of informal shops and made residents highly dependent upon external aids. However, non-governmental organisations in Pune were quite surprised to see the amount of solidarity and organisation among residents based on mutual trust when they began food supply. Informal housing faced extreme urban inequality but also showed the role of self-organisation based on trust and locality knowledge to overcome the hardships of an economic crisis driven by the pandemic.

❺ Faceless Workforce In City: Indian cities survived and grew on cheap human resource, continuously flowing from villages and finding housing in gaps of formal spaces. Such housing clusters are often unauthorised and therefore are not serviced. However, the residents of such housing cluster contribute immensely in the building and running of a city. The population in such informal housing is never assimilated in the city fabric and is even considered to be a threat to the city's peace. Almost all the poor migrants earn a livelihood through informal businesses and domestic jobs or find informal jobs in construction, hospitality, warehousing, transport and goods supply chain. The lockdown imposed to control the virus spread has temporarily closed down many businesses and as a result of which many informal workers were thrown out of jobs. Due to the social distancing norms and shutting down of the public spaces, income sources of informal businesses dried up rapidly. This triggered a massive exodus where migrants returned from cities to their native villages in the hope of food availability from their community and kinship.

These were the same informal workers who provided low skill services and supplied daily needs to the residents of formal housing. Due to lack of assimilation, the migrant workers and the residents of gated communities remained faceless to each other. When the exodus triggered by the COVID-19 lockdown began, the services and daily supplies to residents came under tremendous stress due to the shortage of human resource. The news media called the exodus to be the largest after India-Pakistan partition and sensationalised it for the sudden 'visibility of invisible'. Such media sensationalisation failed to sensitise the decision-makers of urban local bodies towards the need to assimilate the migrant workers with formal urban housing. At such testing times, farmers came forth to provide daily needs by filling the supply chain gap. It is important to note that the growing formal housing had forced the same farmers on the urban periphery to sell their land and migrate spatially and economically. The lockdown and the struggle for daily supply by city residents have the potential to bring forth urban farming as one of the significant features in land use planning of cities.

❻ Urban Form Of Trust: On our quest to gain better knowledge of urban form and its effects on informality, we found the role of trust in sustaining economic activities to be very significant. Past studies have established trust as a primary impetus for flourishing informal economy (Odera, 2013). It has also been seen that epidemics have triggered trust deficit between citizens and their government (Richardson, McGinnis, & Frankfurter, 2019). We, during our study, saw in some of the gated communities, the extreme end of 'Trust Your Neighbour' approach where residents could trust just their immediate neighbours and distrusted people from other housing types. This tendency of distrust was visible when low-rise housing clusters barricaded internal streets or when poor migrant workers had to leave the city and go back to their native villages. It is very interesting to see that the trust and locality knowledge promoted informal economic activities in varied degrees across the four urban forms. However, such informal activities remained isolated in individual housing types and residents remained aloof from other distrusted housing types. It was also seen that the low-rise and semi-formal housing types remained trusted places as they promoted informality and welcomed residents from other housing types.

The knowledge gained on trust and informality in housing types made us curious to introspect whether housing type promoted the trust or the housing types are produced by the community of trust; in other words, whether the trust is a formative ingredient for the generation of a particular housing type. The introspection revealed that the emergence of a variety of housing type is not just through economic mechanisms of real estate but by a deep sense of trust. Quite a few interviewees expressed that they are able to receive the supply of daily needs because they could trust their neighbours. Similar to many other aspects of urban life, trust plays a major role in selecting a housing type to live in. The matter of trust revealed itself profoundly by promoting informality of economic activity in the difficult time of COVID-19 virus spread. Therefore, as much as the urban form can be studied through morphological analysis, it can also be seen as a variegated landscape of trust. Now that we have learned that the urban form manifests itself by embodying trust, it is not surprising to see that informality borne out of trust shows similar variation corresponding to urban form. Since the monoculture human society of gated housing type came to being through tendency to trust limited number of people, its residents carried forward similar tendencies and distrusted the suppliers. The closely knit urban form of informal housing which is a result of extreme mutual trust, made residents undertake organised efforts to strengthen the food supply by NGOs.

CONCLUSION

Ananya Roy (2009) wrote an article with a very piercing title 'Why India Cannot Plan Its Cities' where she argued that informality is the central impetus for urbanisation in megacities of India. She conveyed the distinction of informality and its closely associated attribute, poverty, while stressing on the point that informality is a form of deregulated urbanisation rather than an unregulated one. Urban informality and the response of planning authority shows embedded tendencies, which Lefebvre (1974) termed as the contrast between 'the right to the city' and 'the right to the property'. At this point, we can argue that informality is not anti-planning but is an epistemology of planning (Roy, 2005). In the absence of recognition to informality, urban migrants remained faceless and despite being a major force in building a city, became the first victim of an economic calamity.

India is one of the most rapidly urbanising nations of the global south and unfortunately highly infected by COVID-19 virus. In this paper, I have stressed that Indian cities are facing double-edged calamity in the time of pandemic: one brought by the spread of virus and the other by the severe economic downturn borne out of lockdown. Sustaining life by earning regular income and receiving food supply came under severe strain due to lockdown/distancing imposed to control the spread of COVID-19 virus. The research presented in the paper has exhibited the inequality of the impact of the economic downturn in four different housing types. The paper establishes that the urban form that promoted informality has helped residents to become a part of the economic activity thereby helping in the sustenance of everyday life. It has also been argued that mutual trust and locality knowledge leads to a cohesive society allowing informal economic activities to flourish. Urban forms and housing types are not distinguished by formality but appear to be a smooth transition of formal to informal urban cultures. Such urban forms and their contribution in interlinkage of social interaction and economic sustenance through the frame of informality will make a valuable epistemological contribution to pave the future path of urban planning.

END NOTES

▶ Data retrieved online on 12, August 2020.

▶ Gated housing is characterised by multi-storeyed apartment buildings, built on commonly owned land with exclusive open space and community amenities where access control is enforced by a gate on a perimeter boundary wall. Such housing is generally produced by real-estate developers and sold in open market where least violation of regulations is expected and they are well serviced by municipal infrastructure.

▶ Low rise housing has single ownership plots where individual residences or small apartment blocks of two or three storeyed buildings are built over period of time. Such housing allows through public access and have exclusive but highly underutilised amenities and overcrowded parks. This is a formal housing with partly unauthorised extension but well serviced by municipal infrastructure.

▶ Semi-formal housing is generally built on a land allotted/ leased to the community and houses are built by individuals. Such housing contains two to five storeyed buildings with multiple tenements where large-scale unauthorised construction is quite common. It is characterised by high density, lack of open space but very vibrant community gatherings and average services through municipal infrastructure.

▶ Informal housing/ slums occupy public land to build poor quality and temporary housing. Local authorities often identify such housing for redevelopment or choose to tolerate them in whatever condition. The housing is characterised by extreme unhygienic condition and generally provided with common and insufficient services through a combination of informal and municipal infrastructure.

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CONNECTING TWIN CITIES WITH INFRASTRUCTURE CORRIDOR IN THE BUILT ENVIRONMENT

THE BRTS LINKAGE ON THE PUNE—BANGALORE ROAD, HUBBALLI—DHARWAD

K. Shalini Vailaya

ABSTRACT

The constant influx of people into cities demands the provision and up-gradation of better infrastructure facilities. These take the shape of urban design or planning projects, along the mobility corridors, more so in the case of twin cities, where two cities are dependent on each other for development. The introduction of dedicated transit lines like Bus Rapid Transport System (BRTS) corridors is expected to bring in development changes within the radius of influence- areas which could be taken up for maximum usage of the new investment. Development focus is generally on the 3 Ds - density, diversity, and design. This paper analyses the project with its strategies of the development plan introduced along with the BRTS corridor.

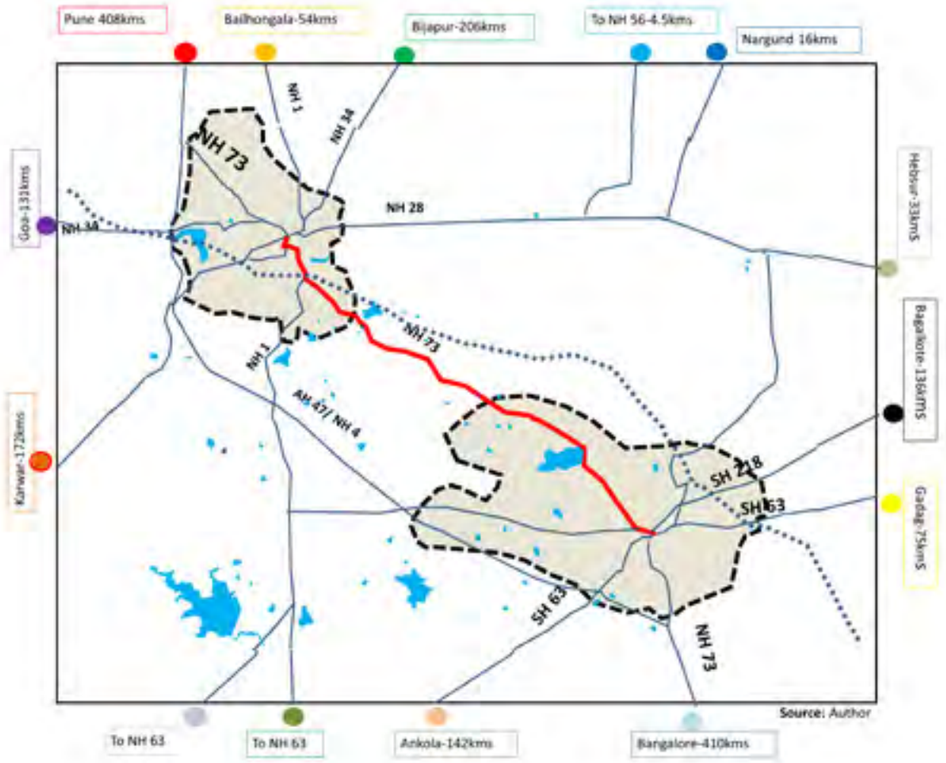
INTRODUCTION

Hubballi and Dharwad are two cities at a distance of 17 km from each other. Hubballi city has been a commercial and industrial set up from historic times and Dharwad is known for the educational set up from post-independence. Hubballi- Dharwad were combined in 1962 under the Hubballi-Dharwad Urban Development Authority (HDUDA) as twin cities. The infrastructural development was put forward in the region for the combination of the two cities. Despite the development plans laid at consecutive intervals, the connection between the two cities was frail due to the wide void in their connector region.

EXISTING SCENARIO

The road connecting the two regions is the National Highway 73 (NH 73), also known as Pune- Bangalore Road or P.B. Road. This road has been the main trade route for centuries. It is one of the most congested roads of the north-western Karnataka region.

For providing better transportation facilities between the two cities, Bus Rapid Transport System (BRTS) is being laid out along this stretch along with widening the roads. The portion of this taken for this study passes through different land uses : commercial centers like Agricultural Produce Market Committees (APMC) yards, educational Institutions like B.V. Bhoomaraddi College of Engineering & Technology, hospitals like the Cancer hospital at Navnagar, Hubballi, important landmarks like Unkal Lake which is an environmentally sensitive zone. The corridor sees a ribbon development and is an important and the only connector for several pockets in the region under study. Many of the sub-arterial and collector roads link up with the project corridor.



Top Regional Connectivity

Name of network	Start- Destination	Important Hubs passing through	Magnet
NH-73	Pune–Mumbai	Pune Raibag Ghataprabha Kudachi Ugar Laxmeshwar-Desanur Chitradurga, Davangere, Haveri, Hiriyur, Sira, tumkur, Bengaluru	Commercial center–Nodal point Railway nodal Point Wholesale vegetable market. Religious center for Muslim community Weekly vegetable market and sugar factory Religious places for Hindus, sugar factory Bengaluru- major urban center, Commercial, industrial , educational link, employment generator
NH-34	Dharwad- Saudanthi	Basavakalyan- Bijapur Saudanthi	Educational Hub Major city Religios center
NH-28	Supa with Annigeri via Haliyala, Dharwad and Hebsur	Hebsur	Agricultural Hub Major city Religious center
SH-218	Hubballi- humnabad Further to Hyderabad Gulbarga	Hubballi–Bagalkote–Bijapur	Industrial link,Transit junctions
SH-63	Ankola–Gooty–Bellary	Ankola–Hubballi–Hospet–Gooty	
NH-04	Golden Quadrangle	Itighatti, Vajpayegar	Industrial Towns

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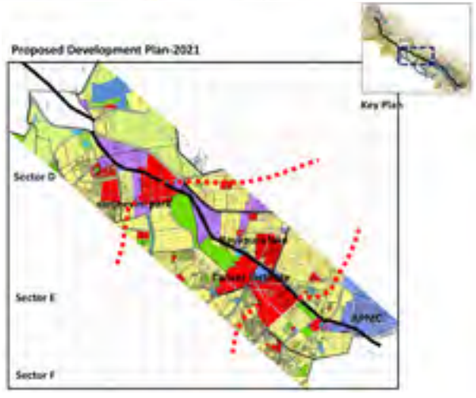
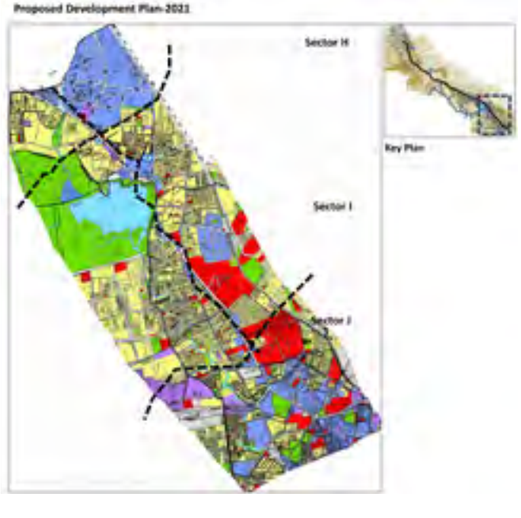
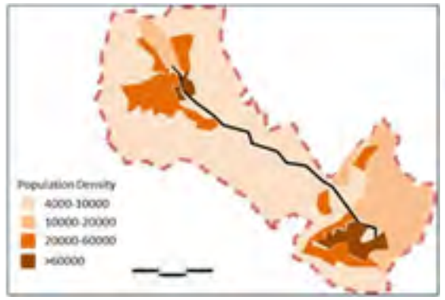
Land use and Built use Pattern along the Study corridor







Top Population Density of the Study Area
Right (T–B) Growth along HDUDA

THE HUBLI-DHARWAD BUS RAPID TRANSPORT SYSTEM (HDBRTS) PROJECT

The HDBRTS Company Ltd. has been initiated by the Government of Karnataka as an economic booster along with a safe, efficient, and sustainable transport system for the region. The INR 970 crores project has been funded by the Government of Karnataka and the World Bank with the support and guidance of the Directorate of Urban Land Transport (DULT).

The HDBRTS project includes BRTS corridor development with depots and workshops and public realm projects like the rejuvenation of the existing Rayapura Lake and Sanjeevini Park which lie along the developmental corridor. The project also links up the green link ties which would further combine the HDBRTS project with sustainable development.

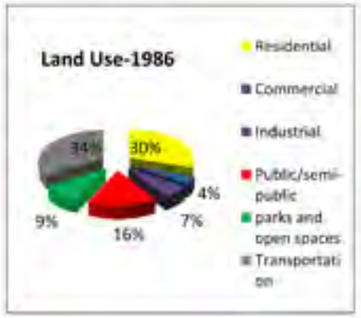
DENSITY

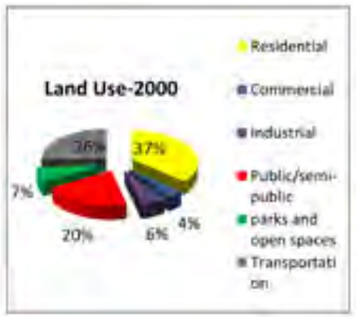
The HDUDA development authority region extends up to 202.3 sq.km. Very little development is seen upto about half a kilometer on either side of the corridor. The density mapping indicates high density in the central business districts (CBDs) of the two cities and seeks a void in the central region. The growth pattern as seen in figure 4 indicates the growth magnets to be distinctly away from the corridor. The project is expected to not just ease the movement between two cities but also needs to fill the void between two cities.

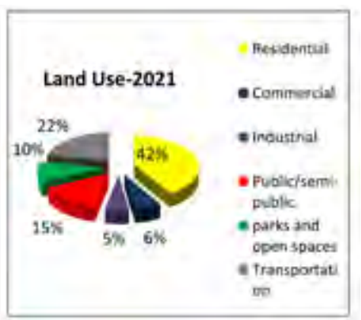
DIVERSITY

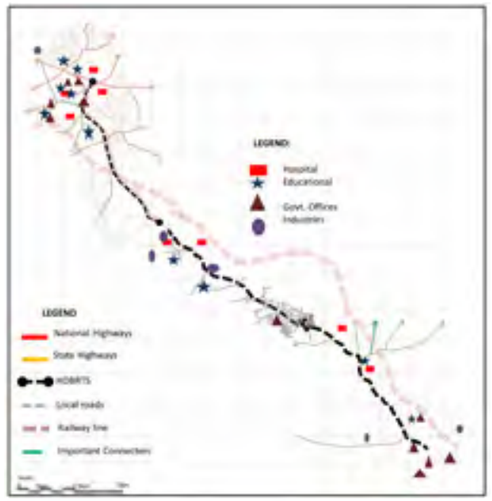
According to the feasibility report of the HDBRTS project from DULT, the movement along the corridor is generally seen to be towards the commercial hub as it moves in the direction of Hubballi and for work or educational institutions in the movement towards Dharwad. The activity magnets along the corridor are a group of institutions, hospitals, and government offices.

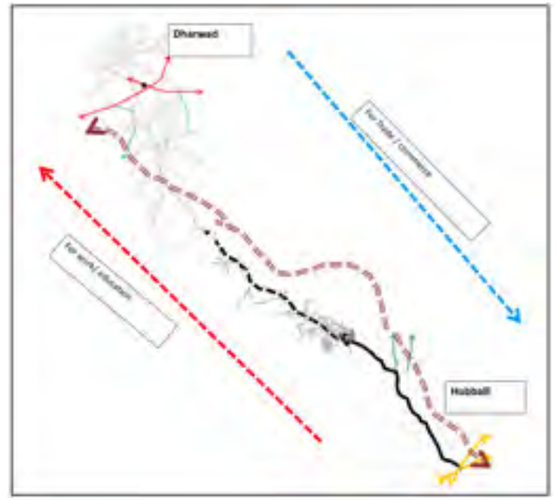
The movement between the CBDs of the twin cities is more than the intermediary travel. Since the travel distance between the cities is less, the means of commuting by private vehicular modes are more than by public transport.

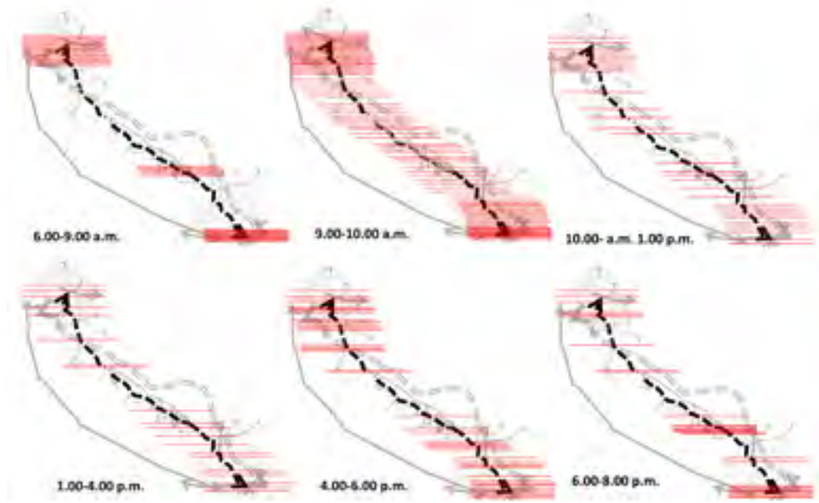








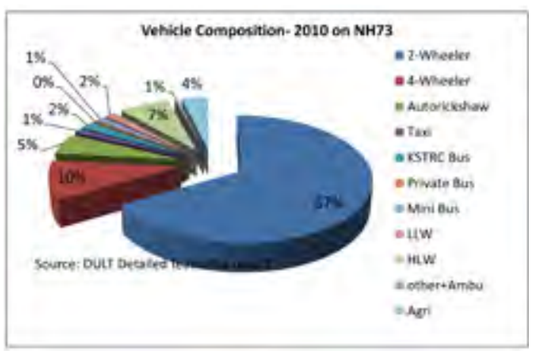




Top Activity Magnets along the Study corridor

Left Temporal Pattern along the Study corridor

Bottom Travel Pattern along the Study corridor



DESIGN

The public realm projects along the corridor development are introduced not just as treatment of environmentally sensitive zones but also act as magnets to fill in the void in the connector areas between the two cities. The crowd drawn to these magnets/ nodes can be capitalized upon- not just as fillers, but to draw in the intermediary commuting network.

Rayapura Lake: The BRTS Corridor divides the 0.93 acre lake area into two. The lake, which mainly acts as a collection pond is designed for the public interface with soft-scape for aesthetics and buffers and water purifying possibilities. The embankments are planned for edge planting for soil stability and aesthetically enriching experiences along the walking tracks. These are created on the flatter grounds along the peripheral areas. The indigenous species along the buffer plantations are meant to collectively merge and establish a link to the neighboring green space. A rich public space, on the state or national highway, can add character and create an identity for the place.

Sanjeevini Park: The Park admeasuring 80 acres is located on the environmental sensitive zone of the study corridor. It has been designed to captivate all age groups engaging in the activity-related trails along the Park. The steep slope and the 42 m height to the summit adds to the potential for a public domain, with its interesting active and passive recreational areas for ecological enrichment for the general public.

Green Links: Green links are planned along with the transit corridor for a green connectivity/ mobility to the neighborhoods. The green transit, BRTS Corridor is connected with the existing institutional and residential areas with the green link network facilitating the pedestrian and the non-motorised vehicle (NMV) movement.

CONCLUSION

In the integrated approach of the BRTS implementation, the strategies planned along with the development of HDBRTS corridor for not just commuting along the corridor, but with the holistic idea of creating spaces for attracting commuters into the connector regions in between twin cities. It also seeks to promote good quality urban spaces for increasing the vitality of the area. The green links initiative adds to the quality of urban spaces in the two cities with the mass urban transportation system.

Top Overall section of the Rayapura Lake

Middle & Bottom Broad Concepts for Sanjeevini Park

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UNDER-GRADUATE DISSERTATION

AQUA FLOATING ARCHITECTURAL TERRA

By Shaurya Dutta

ABSTRACT

People have been living on water in many places around the world for hundreds of years. However, the idea of building on water has been re-introduced with a brand-new concept within the last twenty years, primarily necessitated by the emerging threats of rising sea water levels and lack of building space. The new ideas conceptualize a giant floating structure that is almost like an integrated town rather than a mere collection of multiple free-lance floating homes or pods forming a floating community or district. This paper looks at the design of a floating city which is self-sustainable, generating its own energy, reducing, reusing and recycling waste without affecting ocean biodiversity and ecosystem.

An attempt has been made to focus on including all the important functions of a city, and connecting them in such a way so as to make it fully functional. Adequate research has also been done on the structures such that they remain stable and are able to withstand cyclones and tsunamis, through mooring, platform connections and breakwaters. The design is such that more units can be added; hence proliferation of the city is easily possible without disrupting the already existing functions. The plan has also considered the Urban and Regional Development Plans Formulation and Implementation (URDPFI) guidelines of India, to the extent possible.

BACKGROUND

❶

Sea Level Rise due to Global Warming: Due to melting of ice caps as a result of higher temperatures, sea levels are rising every day. A rise in the sea level brings myriad problems to the population living in coastal regions and the sea defences of a country. Fourteen of the world's 17 largest cities are situated along coasts. Eleven of these cities, including Bangkok, Jakarta and Shanghai, are in Asia. In addition, two-fifths of cities with populations of 1 million to 10 million people are located near coastlines. The rise in sea level also directly affects the rise of water level in the rivers.

❷

Lack of Available Building Ground: The fast-growing population of the world and the consequent reduction in available grounds for building has given rise to a demand for more living space. Land reclamation being not feasible in most parts of the world, moving onto the waters for a living has been emerging as an alternate solution—and it's not new, since for centuries many tribal communities have been living on waters. More than two-thirds of the Earth's surface being water, it is all the more logical to learn how to build on water, without disturbing its bio-diversity or affecting its environment.

❺

Relevance: A floating city alternative would be extremely relevant in the modern world today that would, apart from addressing the above two major issues, also ensure the following.

❹

Flow of Work: In the absence of specific design guidelines or codes for building on water, this dissertation has followed a specific methodology, developing guidelines that would make it possible to arrive at a logically designed plan. After studying several conceptual case studies and researches, a basic idea on the guidelines and codes were formed, which helped formulate the concept.

❺

Concept: To come up with a design for a floating city community, the basic requisites need to be stated, which are: Movability; Dynamic geography; Sea keeping; Water experience; Growth; and safety.

RELEVANCE

SOCIAL
Awareness and binding communities
The comminities thus formed by the platforms, create friendly neighbourhoods, binding communities.

ECONOMIC
Revenue and valuation
Floating cities can be relatively less costly than building on land, and can generate revenues through tourism or festivals.

CULTURAL
Cultural community establishment
Specific areas under threat of flooding, can find refuge in such cities, thereby conserving the community.

ENVIRONMENTAL
Sustainable Approach
Building on water, while using sustainable forms of energy, thereby saving the environment.

NATIONAL
One of its kind
By 2050, every country, facing the danger of rising levels of sea water, will need its own floating city concepts.

Apart from the above, other requirements to base a design of the floating city on are:

- ▶ The individual floating modules must be uniformly shaped and modular.
- ▶ Circular layouts must be present in the platform configurations.
- ▶ The platform-connections should be such that a dimensionally stable cluster is created.
- ▶ Shape and configuration of the platforms should be designed in such a way that a minimum number of connection systems are required between platforms.
- ▶ Platform design should enable easy configuration for future growth.
- ▶ There must be enough water experience in the floating community.
- ▶ The form of an individual floating platform has to be statically and dynamically stable on its own.

With all the above-mentioned objectives and requirements, it has been found that the most suitable shape in the design of a floating city is the modular hexagonal platforms. The design of the hexagonal-shaped platforms is very straightforward and owing to its shape, the growth of the community/city can be simply achieved by adding more platforms to any of the

six sides– in branches or specific patterns, according to the climate of the sea. Hexagonal-shaped platforms are symmetric from all sides, so it is easier to configure the floating community in different ways without worrying about whether the platforms are going to fit into each other. Further, a hexagon is more open to the sea with its six sides, allowing more houses/buildings to be built on the coasts, which would add to the visual and physical experience of the residents, including the water experience.

LIMITATIONS

▶ Given that no such floating city has yet been launched on open waters, figuring out exact areas for the functions specific to a floating city might be difficult.

▶ Working drawings and micro level details of every function required for the city to function is beyond the scope of the dissertation.

▶ Specific rules and laws for building on open waters have not been developed fully as of yet, therefore ascertaining the exact regulations and codes would be difficult. Various studies have only helped in understanding platform loads, structures and buoyancy, platform interconnections and moorings.

DESIGN

The design takes into consideration that there are separate units which are named 'M'. The 'M' units are arranged in a particular arrangement of '3M'. The designs are completely modular and can be formulated the way the particular organisations perceive, therefore making it completely based on the design and its requirements.

▶ One main entrance for 'M'.

▶ A central avenue which leads to the residential zone– a gated community with its own functions and services.

▶ The main entrance has commercial zones on both the sides.

▶ All other zones are placed near the open waters, such that it makes accessibility easier for guests and residents.

▶ It is designed such that it is able to incorporate all of the sustainable development goals as advised by the UN.

The commercial zones are placed on both the sides of the entrance since it accentuates the elevation as seen from the open waters, and also restricts the access of public. It is primarily kept as the public zone, since it is assumed that people from other units and other nations can come and visit particular units. Their movement will be restricted such that they are not required to go through the residential zones.

The residential zones are kept at the centre of every unit to keep it as safe as possible from any unforeseen situations, since the centre of the units are the most stable, with minimal movement due to floating. Therefore, this zone has its own recreational zones, with proper residential settings with its own institutional zones, clubs, small markets, etc. The residential zones are then connected to the farms on the other side of the units. Most people living in the floating units have to be self-sufficient, therefore farming, compost gardens, greenhouse maintenance, aquaponics, aeroponics, become a major source of income and survival. This floating city looks forward to an egalitarian community, that believes in community work, and that all work needs to be done equally by everyone to ensure the city keeps functioning at its best.

The institutional zones are in a more private zone, to ensure safety for the students, and also to ensure security and defence in case of any unforeseen natural calamities. The colleges and schools are positioned in such a way that students from both neighbourhoods can be a part of them, that is, students from 2Ms can enrol themselves at the schools and colleges which are centrally located. There will be two such clusters of institutional zones in a group of one 3M. The fields open up towards the open waters side, which are then bordered by compost gardens, farm lands and greenhouse facilities, which are then followed by rows of mangrove forests and embankments that are used for natural protection.

The rear parts of the units are lined by a layer of embankments and mangrove forests, followed by a layer of community compost gardens and greenhouse belts. These areas are mostly for farming, unless specifically demarcated for waste management or water storage or any other such activities.

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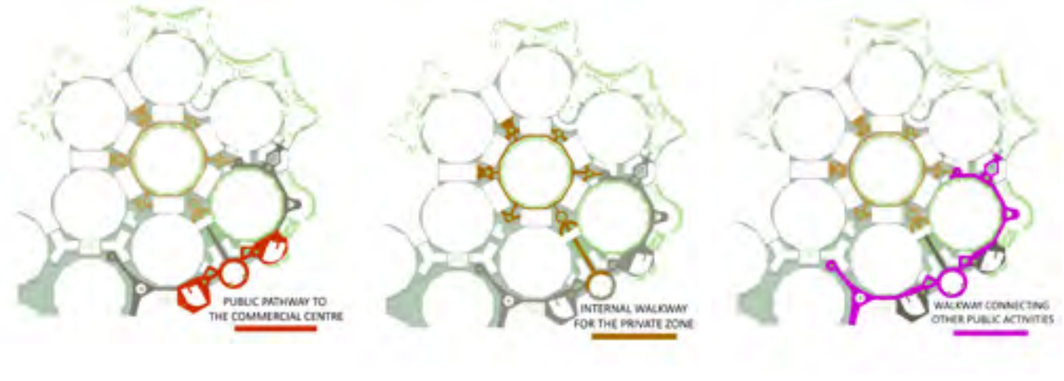
Shaurya Dutta graduated in 2020 from Jadavpur University. He has always been fascinated with the design of buildings and other structures, with the added dimension of sustainability, both socio-economic and environmental. His interest in the topic of his Final Year dissertation came from a cluster of villages near the Sunderban deltas, which is currently facing the danger of rising sea water levels.

Case Study	1 Singapore Floating City	2 Tahiti Floating City	3 Amsterdam Floating City	4 Oceanix City	5 Lily-Pad Floating City
Population	30000-50000		45000	10000	50000
Necessary Dimensions	Diameter of circular platform = 3000 m	Square platforms, L = 50 m Wall of 50 m to protect buildings	Width of home = less than 6.5 m	Initial concept is of 4.5 acre pods, holding 300 people. Final = 75 acres	
Height	Height of vertical city = 1000 m	3-storeyed buildings		5 - 6 storeyed buildings	
Materials		Green roofs covered with vegetation, local bamboo, Coconut fibre-wood, recycled metal and plastic		Mass timber, Bamboo	
Cost of a platform		Less than 15 million dollars			
No. of platforms/ No. of buildings		Initial concept has a module of 11 platforms, subject to multiplication.	75 buildings		
Energy resources	Space solar power satellite, ocean thermal energy conversion, carbon dioxide capture and storage				
Ocean biodiversity context				Aquaponics, aeroponics and agriculture, in between, with sustainable means of disposing waste	Three ridges providing necessary bio-diversity and landscape. Said to be 98% efficient



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Journal of the Indian Institute of Architects invites original and unpublished contributions from members (academicians, practitioners and students) under the following categories:

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Essays, interviews, articles (1500–2500 words) and book reviews (600–750 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 will be available on the JIIA website)

Category 2

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

Category 3

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). All contributions in this category will be peer-reviewed before being accepted for publication, conducted by academic experts of repute.

In order to be accepted for publication, all material sent in the three categories above should be sent in the following four components:

1 MS Word document file with text only. 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 which are in the text file.

3 Photograph of the author/s (minimum 300 DPI).

4 Author biodata (maximum 50 words).

5 PDF, showing the intended layout. This PDF should include text with all images (with numbered captions).

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30th Architect of the Year Awards

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GREEN ARCHITECTURE AWARD

ELIGIBLE COUNTRIES: India, Bangladesh, Bhutan, Kenya, Maldives, Mauritius, Nepal, Seychelles, Sri Lanka, Tanzania & Uganda

Ar. Sonali Rastogi, New Delhi
Forest Essential Facilities, Rishikesh

INDIAN ARCHITECTURE AWARDS (IAA)

ELIGIBLE COUNTRIES: India

ARCHITECT OF THE YEAR
Ar. Sidhartha Talwar, New Delhi
Krushi Bhawan, Bhubaneswar

COMMENDATION AWARDS

PRIVATE RESIDENCE
Ar. Sudheesh S., Trivandrum
A Home in Between, Kollam

PUBLIC BUILDING
Ar. Uday Andhare, Ahmedabad
Natarani Theatre, Ahmedabad

GROUP HOUSING
Ar. Sanjay Puri, Mumbai
RAS Houses, Rajasthan

INDUSTRIAL ARCHITECTURE
Ar. Dinesh Panwar, New Delhi
Stonex, Kishangarh, Rajasthan

YOUNG ARCHITECTS AWARD
Ar. Manasi Puliyappatta, Kerala
Architect Office, Palakkad, Kerala

ARCHITECTURE STUDENT OF THE YEAR
Nikhil Maniar
Revitalising the act of community living in the industrial cluster of Morbi, Gujarat
Academy of Architecture, Mumbai, Maharashtra

FOCUS STATES ARCHITECTURE AWARDS

FOCUS STATES: Maharashtra & Gujarat

ARCHITECT OF THE YEAR
Ar. Arjun Malik, Mumbai
House of Three Streams, Lonavala

COMMENDATION AWARD
Ar. Sanjay Puri, Mumbai
Aria Hotel, Nashik

YOUNG ARCHITECT AWARD
Ar. Anubha Joshi, Pune
Backpacker Hostel, Panchgani

FOREIGN COUNTRIES' ARCHITECTURE AWARDS (FCAA)

ELIGIBLE COUNTRIES: Bangladesh, Bhutan, Kenya, Maldives, Mauritius, Nepal, Seychelles, Sri Lanka, Tanzania & Uganda

ARCHITECT OF THE YEAR AWARD
Ar. Md. Iqbal Habib, Md. Ishtiaque Zahir, Shahnaz Akhter Parveen, Dhaka
Ekmaattra DBBL Academy, Gubrakura

COMMENDATION AWARD
Ar. Lutfullahil Majid, Dhaka
A Khanka For a Fakir, Kishoreganj

YOUNG ARCHITECT AWARD
Ar. Rashed Hassan Chowdhury, Dhaka
Blues Head Office, Dhaka

NOTE FROM THE DESK OF MD
DR. RAGHAVPAT SINGHANIA

Dear Architects,

Wishing you a Happy and Prosperous Year ahead. More than three decades have passed, since our beloved Late CMD Shri Yadupati Singhania Ji initiated the "JK Architect of the Year Awards" to commemorate the brilliant work of our Architects. It would not have been possible without the continuous support of the Architect fraternity of India and the participating countries. The awards have been taken to newer heights with the assistance of the brilliant projects that it has exhibited throughout this time, all being ingenious innovation of our genius Architects. It is your enthusiasm and efforts that has brought the awards its reputation in the industry today.

Since the last I wrote to you from this desk, the world has significantly changed. The pandemic that has troubled us throughout the year 2020, has also brought us unique and adaptive ways of leading our lives. With the new strain of the virus, the challenges are far from over, but I am positive about our innate strength. We have thrived throughout the 2020, so we will in the 2021 and so on. Although it may require us to make changes and undeniably that would be unsettling, but as the patterns of the last year exhibit, no challenge is big for us. We shall continue to operate with same dedication.

I regard all my motivation and optimism to our exceptional jury members for helping us through virtual and digital platform by giving us their precious time and efforts for the decision of the winners. Moreover I would like to congratulate the winners of the 30th JK AYA and my special gratitude to the participants for bringing the best projects for the competition. The JK AYA Secretariat is also appreciated for the timely organization of the virtual meetings for the first time during this challenging period.

The JK Architect of the Year Awards is continually searching for the beauty in the infrastructure that is first seen in the mind of an Architect. This is what the founding father of the awards, Shri Yadupati Singhania ji pondered, and we shall continue doing so for the coming years with your support.

Thank you for your participation and it is my appeal to the community of Architects to keep participating in the JK Architect of the Year Awards and become an inspiration for our budding Architects.

Stay safe, for better times are ahead.
With best wishes.

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

AYA FACT FILE

- J.K. Cement Ltd. instituted this award in 1990.
- Hon'ble Dr. Shankar Dayal Sharma, Vice President of India was chief guest at 1st AYA Award Ceremony.
- Ar. Laurie Baker from Thiruvananthapuram was first winner of Great Master's Award.
- Ar. Anant D. Raje from Ahmedabad was first winner of Architect of the Year Award.
- "Trophy" together with name "Architect of the year Awards" was registered as Artistic work with register of copyrights, Govt. of India in 1995 with registration № A52959/95/
- "Code of Procedure" relating to AYA has been registered as literacy work register of copyrights, Govt. of India in 2006 with registration no. L-27341/2006.
- Focus countries awards were introduced from 7th AYA.
- Young Architect's Award was introduced from 7th AYA.
- Focus states' awards were introduced from 9th AYA.
- Jury meeting & award function was held outside Delhi for the first time from 8th AYA & since then held each year in different town.
- Green Architecture award for Environment Conscious Design was introduced from 20th AYA.
- Award Function was held outside India for the first time at Colombo, Sri Lanka for 21st AYA.
- Student Architect of the year award introduced from 24th JK AYA.
- Kenya, Uganda & Tanzania included in Focus Countries from 24th JK AYA.
- Ownership of entire activities related with "Architect of the year awards" rests with J.K. Cement Ltd.

COMPANY PROFILE

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 JKC WallMaxX & JKC ShieldMaxX (Wall Putty), JKC LevelMaxX & JKC LevelMaxX Plus (Coarse Putty), JKC GypsoMaxX & JKC PlastoMaxX (Gypsum plaster) and JKC TileMaxX- (Tile Adhesive & Grouts).

The Company's manufacturing plants have modern equipments 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.

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 Mr. Yadupati Singhania, Late Managing Director, JK Cement Ltd., Architect of the Year Award (AYA) was instituted in 1990 to inspire the professionals to strive towards further raising the bar in architecture standards of the Country. AYA since then has lived up to its legacy of awarding excellence every year and has helped pave the way for a better tomorrow in design.

JURY REPORT

The virtual jury meeting for 30th Architect of the Year Awards was successfully concluded on 13th Feb. 2021.

In order to avoid any network issues and also to be with the technical team, we went to Gurgaon and operated from a place called "The Circle", HUDA City Centre. During these 3 days, we had uploaded 195 entries on the website which included description of each project, minimum 6 drawings of each project & minimum 6 photographs of each project. These entries were evaluated by a panel of 10 jury members located in 4 different countries i.e. 7 jury members from India representing one jury each from North, South, East, West & Central India and 2 jury members representing the focus states of Gujarat & Maharashtra. The jury members were located as far as Goa in West and Gangtok in East, Lucknow in North, Visakhapatnam in South & Jaipur in Central India. Besides these 7 jury members, the professional advisor was also connected from Jodhpur. The foreign jury members were one each from Kathmandu, Dhaka & Kampala (Uganda).

We prepared power-point presentations describing the brief history of JK AYA, the process that was to be followed for virtual jury meeting & guidelines for navigating through the website were explained to jury members on 11th & 12th Feb. Each presentation concluded with a detailed question answer session with the jury members.

After thorough judging on day-1, there were intense discussions and finally with the consensus, 13 winners under different categories were selected by the jury members on day two i.e. 13th Feb. 2021. We were fortunate enough that we did not encounter any problem throughout the jury process. However, every jury member suggested that the conventional physical jury meeting, is better than the virtual jury meeting. So, in future we should continue in the conventional style, if the situation permits. Jury meeting for Architecture Student of the Year has been conducted separately with Council of Architecture.

We received encouraging feedback from all the jury members, appreciating the concept and process of the virtual jury meeting.

We at JK AYA secretariat, thank you all jury members on behalf of JK AYA management for their dedication in virtual jury meeting.

JURY PROFILES

Ar. A. Mridul
The professional advisor for 30th JK AYA. Ar. A. Mridul is a practising architect from Jodhpur. He did his graduation in architecture from Chandigarh college of Architecture, Punjab University, Chandigarh. Ar. Mridul is engaged in private practice since 1985 and before that he was trained at Stein, Doshi & Bhalla, Ahmedabad and Vastu shilp Foundation, Ahmedabad.

Ar. Mridul is an exponent of Green Architecture and he is committed to conservation and judicious use of architecture. His various projects have been awarded by number of excretions like HUDCO Design award for Gandhi Museum in Jalgaon, Rajasthan Stone Architectural award 1995, All India Stone Architectural award 2009, 2005 UNESCO Asia Pacific Heritage award and many more. His designs have been published in various architectural magazines and journals.

Ar. Mridul is an empanelled architect of Rajasthan Housing Board, EPCO, Bhopal (M.P.) and he has also been a visiting faculty of MBM Engineering College, Jodhpur.

A philanthropist, Ar. Mridul is on number of Boards of educational institutions and Social Institutes in Jodhpur.

Ar. Shaila Joarder
Representing Bangladesh from the foreign participating countries is Ar. Shaila Joarder.

Ar. Shaila is a Graduate in Architecture from BUET and Master of Built Environment (Sustainable Development) from The University of New South Wales, Sydney, Australia.

She is currently the Associate Professor & Chairman of Department of Architecture, North South University, Bangladesh. Ar. Shaila is affiliated to number of professional bodies in Bangladesh and she is recipient of many awards & honours. A number of her papers have been published in various conferences & seminars as well as reputed journals both domestic as well as international. Besides teaching, she is also Managing Partner of NAYREET Architects and has done number of projects that includes factory complex, residential complex, educational institutes, rehabilitation centres, hostels, etc.

Ar. Abhishek Mananda Bajracharya
Representing Nepal from the foreign participating countries is Ar. Abhishek Mananda Bajracharya.

Ar. Abhishek is a Master of Science in Urban Deisgn & Conservation from Institute of Engineering, Tribhuvan University, Nepal.

In a career span of nearly 13 years, Ar. Abhishek has worked on varieties of projects like Detailed Master plan design and architectural designs of district jails, hospitals, swimming pools, private residences, resorts, etc., Ar. Abhishek is currently an Executive Member of Society of Nepalese Architects (SONA), Kathmandu, Nepal.

Ar. Brian Muhwezi
Representing Uganda from the foreign participating countries is Ar. Brian Muhwezi from Kampala, Uganda.

Ar. Brian did his Bachelor of Architecture from Makerere University of Kampala and presently he is doing his MSc in Project Management from University of Liverpool.

Ar. Brian Muhwezi has 13 years of experience in active practice. He has gained diverse experience from a multitude of projects in those years working with both Symbion Uganda Ltd and Code Infrastructure Group. He is now a director at Code Infrastructure Group. His work includes private residences to public institutions both social & commercial. He has also worked on number of projects for the Government.

Dr. Vandana Sehgal
Representing North India, the Jury member is Ar. Dr. Vandana Sehgal from Lucknow, U.P.

Dr. Vandana Sehgal is an architect, an artist and an academic. As an academic, she has been teaching architecture since 23 years. She is currently the Principal and Dean of Faculty of Architecture and Planning, AKTU. Lucknow.

Ar. Vandana writes regularly in journals on theoretical aspects of architecture, cultural theory, pedagogy and practical design issues.

As an artist, she has done solo shows 'Between Spaces' 'Ramayana' 'Lucknow- ek nazar', The Woman and Krishnaa" and has participated in group shows with various artists all over India. She has painted Illustrations for reputed authors and publishers. She has curated many exhibitions like 'White on White', 'Sanctums' etc.

As an architect, she is associated with design projects like Extension of State Archives, Lucknow, Documentation, Conservation and adaptive re-use of historical buildings like Chhatar Manzil and Lal Baradari Lucknow, documentation of many areas of Varanasi, and planning projects like Ru-urban scheme of GOI through institutional consultancy.

She is also associated with some private projects like hotels, memorials, homes and interiors in an honorary consultant's capacity.

Ar. Gauri Bharat
Representing Focus state, Gujrat, the Jury member is Ar. Gauri Bharat from Ahmedabad, Gujarat.

Ar. Gauri Bharat is a Graduate of CEPT, Ahmedabad, M. Arch from National University of Singapore and PHD from School of Art, Media and American Studies, University of East Anglia, Norwich, UK.

Currently Ar. Gauri is the Associate Professor & Post Graduate Chair, Architecture History and Theory in CEPT, Ahmedabad.

She has been winner of number of awards & she has been on the jury panel of many prestigious competitions, both national as well as international.

She has been speaker on many forums and she has also authored number of articles and books.

Ar. Gyanendra Singh Shekhawat
Representing Central India the jury member is Ar. Gyanendra Singh Shekhawat from Jaipur, Rajasthan.

Ar. Shekhawat graduated from Jawaharlal Nehru Technical University, Aurangabad and did his Masters from School of Planning & Architecture, New Delhi.

Ar. Shekhawat is a well-known architect with over 20 years of professional experience. He has created some of the prominent urban landmarks across various cities. Presently he is the founder & principal architect of IDEAS, one of the leading design firm in Jaipur. He is Chairman of Indian Institute of Architects Rajasthan Chapter and Chairman ARCASIA Committee on Architectural Education.

Ar. Shekhawat also have 7 years of teaching experience in Malviya International Institute of Technology, Jaipur. He has won many awards including JK AYA State Commendation Award.

Ar. Vishvesh Kandolkar
Representing western India, the Jury member is Ar. Vishvesh Kandolkar from Panjim, Goa.

Ar, Kandolkar did his graduation in Architecture from Goa College of Architecture, Panjim followed by Master of Architecture in Urban Design from CEPT, Ahmedabad and PHD in Art & Design from Srishti Institute of Art, Design & Technology, Bangalore. He has held number of academic positions in various institutes of architecture. He has been involved in various researches and writings.

Ar. Kandolkar is winner of number of awards, to name a few; The Bodhi Tree 2017 Special Mention Jury award for International Urban Design competition.Sir Patrick Geddes for the Best Architecture student in Urban Design in the year 2007, Vastu shilp Foundation award for the Best Graduating student 2007, and many more.

Ar. Aditya Kambhatla
Representing South India, the Jury member is Ar. Aditya Kambhatla from Vishakhapatnam, Andhra Pradesh.

AB.Arch. from Andhra University, Vishakhapatnam and MsBA from University of Memphis, TN, USA.

Ar. Aditya is an Award winning architect / interior designer with 16 years of experience in planning and designing residential and commercial buildings that includes villas, malls, theatres and schools etc.

Served as chairman of IIID Visakhapatnam and Executive committee member of IIA Visakhapatnam.

He is also founder and principal architect of Project Inc established in 2010 and before this he worked for three years in USA as a planning analyst with Verizon, USA and for two years as a space planning analyst, university of Memphis, TN, USA.

He is also a vising faculty and external examiner at Department of Architecture, Andhra University College of Engineering, Gitam College of Architecture and Varaha College of Architecture.

Ar. Pramod Chaugule
Representing Focus state, Maharashtra, the Jury member is Ar. Pramod Chaugule from Sangli, Maharashtra.

Ar. Pramod is a Graduate of Architecture from Mumbai University, MBA, HR and also Master of Science in Green Building from US.

He is a practicing architect from Sangli and Pune, Maharashtra. Ar. Chagule is also a visiting faculty at AB College of Architecture for the Shivaji University. He is a member of District Environmental Committee since 2012 and number of many social groups.

Ar. Prashant Pradhan
Representing the Eastern India the Jury member is Ar. Prashant Pradhan from Gangtok, Sikkim.

Ar. Prashant Pradhan is a Graduate of Architecture from CEPT, Ahmedabad Master in Architecture from Berlage Institute, Amsterdam. He is the Principal Architect of the firm Prashant Pradhan Architects, Gangtok, Sikkim. Previously he has been associated with various professional firms in New York and Amsterdam.

Ar. Prashant is also a visiting faculty in the Technical School of Design, CEPT, Ahmedabad. He had been an adjunct professor in the City University in New York from 2004 to 2006.

Ar. Prashant Pradhan has presented many papers and participated in number of seminars and lectures, both national & international. He is recipient of many awards.

Ar. Bijoy Ramachandran (Student Jury)
Bijoy Ramachandran is an architect and urban designer based in Bangalore. He is currently a partner at Hundredhands. Bijoy has a a Masters degree from the Massachusetts Institute of Technology, Cambridge, USA, in Architecture & Urbanism.

He has been a panellist at the annual all-India undergraduate thesis review, the Kurula Varkey Forum, at CEPT, Ahmedabad, and is currently the Design Chair in the Department of Architecture, BMS College of Architecture, Bangalore. Bijoy is also an external moderator for the final year design studio at the Department of Architecture, University of Moratuwa, Sri Lanka and serves on the Academic Council of the Wadiyar Centre for Architecture Mysore and Avani Institute of Design, Calicut.

GREEN ARCHITECTURE AWARD
AR. SONALI RASTOGI (NEW DELHI)

FOREST ESSENTIALS FACILITY
LODSI, RISHIKESH, INDIA

Cost ► INR 4 Crore
Built-up Area ► 10,000sq.ft

Construction Technology: In-situ concrete
Structural System: Concrete Framed Structure with beams and slabs, Random rubble for walls; Sloping Roof. Stone from previously existing site foundation was dressed and reused.
Locally available materials were used – tiles, bricks and stone cladding.

The Forest Essentials Facility is nestled in the Himalayan foothills uphill from the banks of the river Ganges near Rishikesh, India. The project is a manufacturing facility for holistic products that focus on reviving the ancient science of Ayurveda. The brand's philosophy of infusing ancient wisdom with contemporary aesthetics became a 'mantra' for us to create a net-zero building through an integrated design approach resulting in a self-reliant and an off-grid sustainable production unit.

Sustainability: The built form draws inspiration the traditional 'Kholi' (i.e. vernacular house) design strongly influences the built form through the implementation of passive strategies (Micro-climate creation, Natural ventilation, thermal mass, glazing optimization, and façade shading) making it sustainable. Façade shading, window-to-wall ratio and building materials were optimised to ensure a high-thermal mass façade resulting in an efficient building envelope with an EPI of 35kWh/m2/yr. A solar roof generating 56kWp offsets the facility's requirements and supplies excess to the grid proving to be Energy+. A site-specific rainwater collection tank and an effluent treatment plant meets the water requirements.

Optimisation: The facility is designed to sit on the natural contours, lowering the need for cut and fill significantly. Using excavated stone from the site for construction, minimising site waste reclaiming the wooden and metal rafters for light fixtures, reinforcement bars as wash basin pedestal and stone chisel for door handles. This leads to resource optimization while developing a design that responds to the context and the community. All by-products are either reused or used for composting. This results in a building that is net-zero on energy, water, and waste. The existing 'gaushala' (for animal husbandry and production of milk-based products) was incorporated in the planning and augmented with a community gathering space.

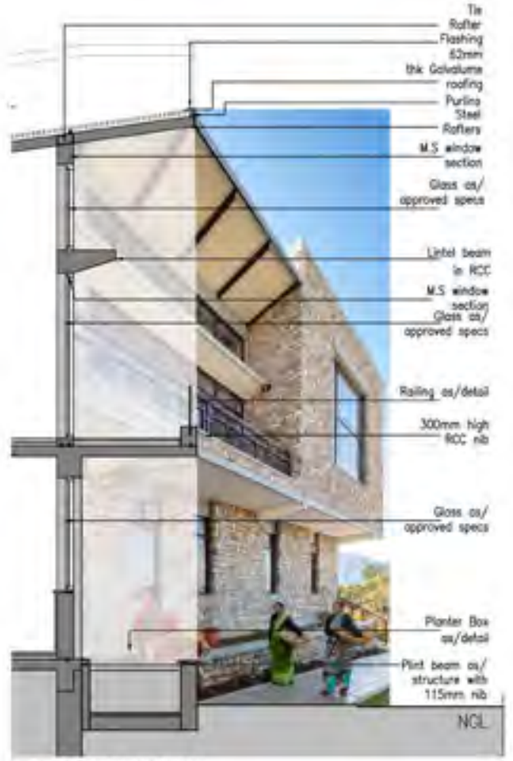
Unique: A rectilinear volume oriented along the East-West axis was planned with a central entry that divides the facility into two parts. Functions requiring a cooler environment such as herb grinding, packaging, and storage are located on the upper floor while functions with high-internal heat-gain are located below. The North-South oriented butterfly roof form allows large openable windows taking advantage of the prevailing Northeast and Southeast winds for ventilation with 80% naturally daylit spaces and unobstructed views of the valley. The high-volume of space with clerestory windows enforces Bernoulli's principle and helps moderate indoor temperatures. The courtyard inspired from the 'kholi' is covered by glass blocks to meet production standards and provide a well-lit central communal space. Passive design and indigenous construction techniques give a strong architectural expression to the building.

Liveability: The project employs 65 workers, which directly or indirectly supports 75% of the village households. The provision of large aangans (gathering spaces) promote the culture of the region which is that of a close-knit community.

The use of local materials, techniques and labor forms a part of the SOUL strategy of the facility, making it A Project for the Locals, Built by

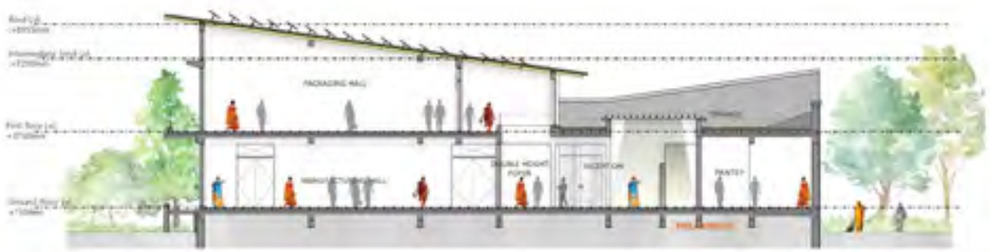
GROUND FLOOR PLAN
1:200

FIRST FLOOR PLAN
1:200



TYPICAL WALL SECTION
1:50

DESIGN



SECTION AA
1:100

EAST ELEVATION
1:100

the Locals and for the Employment of the Locals. The design is deeply relevant in the present times, where in a country like India the perils of agglomerating in the cities has been well witnessed due to the migrant labour issue. The project aims to set a new benchmark for a decentralised community with a Global footprint.

Special Green Features

▶ The Forest Essentials Facility works with the past, present and the future to present a contemporary vernacular prototype for off-grid hill architecture, showcasing it as a medium for creating a self-sustaining ecosystem of humanity and habitat.
▶ Passive design and local construction strategies helped achieve an energy-efficient building with EPI 35kWh/m2/yr.
▶ Net Zero Energy: Solar roof generating 56kWp, generating surplus therefore is Energy+
▶ Net Zero Waste: repurposed fixtures, use of existing foundation & top rubble. All leftover and waste-materials at site have been repurposed and reused throughout. All by-products of the facility are either reused or used for composting.
▶ Net Zero Water: RWH system meets 100%water requirement & 2days additional storage.
▶ The planning and landscape design worked into the original village structure without creating new boundary conditions for the villagers.
▶ After a careful study of the culture of the region, we proposed architecture in form and function as an approach to increase employment opportunities and improve the living conditions of the villagers.
▶ This project employs 65 workers, that directly or indirectly supports 75% of the village households.
▶ Limited availability of infrastructure and resources determined budgetary and building constraints resulting in a self-reliant ecosystem.
▶ The project aims to become a catalyst for architecture that promotes local well-being and addresses the migrant labour issue in the post-pandemic world.
▶ The implementation of indigenous materials, techniques, and village labour forms the ethos of the facility, making it "A Project for the Locals, built by the Locals and for the employment of the Locals but with a Global footprint."
▶ The project addresses historic, socio-cultural and economical sustainability. It sets the perfect example for a decentralized development in the post-pandemic world.

About Ar. Sonali Rastogi

Sonali Rastogi is a graduate from the School of Planning and Architecture (SPA), New Delhi and the Architectural Association, London. She has a Graduate Diploma in Housing and Urbanism under Jorge Fiori and a second graduate diploma in Graduate Design (Design Research Lab) under Jeff Kipnis.

She is the Founding Partner of Morphogenesis, one of India's leading award-winning architecture and urban design practices, listed among the top hundred architectural firms globally.

Sonali has worked on several significant commercial buildings, residential complexes, hotels, offices, institutions, and select residences across India, Bhutan, South Africa, Nepal, Bangladesh, UAE, Sri Lanka, and Afghanistan. Her works have featured in over 850 publications, both international and national. She is an ex-member of the Delhi Urban Arts Commission, fellow of the Indian Institute of Architects, Royal Society of Arts, UK and a chartered member of the Royal Institute of British Architects. She is the recipient of over 110 international and national awards, including India's first World Architecture Festival award winner and five IIA national awards.

Left Page Maximizing north glazing for daylight

This Page Top to Bottom Caarying out outdoor production processes like herb cleaning and drying; Staircase being used as a multifunctional space for small gatherings; A prototype for self-sustaining, off-grid hill architecture.

INDIAN ARCHITECTURE AWARDS (IAA)
ARCHITECT OF THE YEAR
AR. SIDHARTHA TALWAR (NEW DELHI)

KRUSHI BHAWAN
BHUBANESWAR, ODISHA

Cost: INR 70,00,00,000
Built-up area: 12077.4 sq m

Krushi Bhawan is a facility developed for Government of Odisha's Department of Agriculture & Farmers' Empowerment. It was originally planned as a purely administrative building; upon our suggestion, the spatial programme was revised to accommodate spaces for community engagement and learning.

The ground floor has been designed as a free-flowing public space that opens out into a plaza, whereas the terrace has been designed to house urban farming exhibits and for demonstration of best agricultural practices. The purely administrative spaces—which have restricted access—have been placed on the first, second and third floors.

We collaborated with over 100 highly-skilled artisans to create a vibrant and contemporary narrative of traditional Odia craft depicting agricultural folklore and mythological stories, envisioned at an unprecedented architectural scale. The material palette employs locally-sourced laterite and khondalite stones. Dhokra (tribal cast metal craft) has been adapted to make light fixtures and metal screens that line the corridors. Bas-relief carvings in laterite along the Public Plaza depict ripe paddy crops illustrated in the Odia Pattachitra (cloth-based scroll paintings) style.

The upper floors feature a distinctive brick façade inspired by Ikat patterns of Odisha handlooms, created using clay in three different colours that represent the region's geographical diversity. The consequent double-skin fenestration system reduces heat gain to 40% by regulating ingress of sunlight.

The complex consists of a central courtyard that provides optimal air circulation. It opens through a series of colonnades into the Public Plaza, which consists of a garden with native flora, featuring an informal amphitheatre and a pond that cools the forecourt.

In response to Bhubaneswar's warm-humid climate, the design integrates passive and low-tech climate control mechanisms, cutting down the need for mechanical air-conditioning to only 20% of the built spaces. Low window-to-wall ratio, deep and staggered recesses also reduce heat gain. A simple night-purging system pulls cool air into the building through the northern façade when temperatures drop at night; the building's high thermal mass traps this 'coolth' and becomes a 'coolth' exchanger with the surrounding air in the day when outside temperatures are higher. Other interventions include roof-mounted solar panels, on-site rainwater harvesting and wastewater treatment, and an anaerobic bio-digestive solid waste management system which generates compost and fertigation water for the landscape.

Materials of Construction Details

At Krushi Bhawan, highly-skilled artisans have enabled the creation of a vibrant and contemporary narrative of traditional Odia craft. Dhokra (tribal cast metal craft) has been adapted to make light fixtures and metal screens that line the building corridors. The pedestal level and South Wing use locally-sourced laterite and khondalite stone. Hand-carved khondalite lattices provide a sense of enclosure to the Central Court. Agricultural motifs have been displayed across the building through a variety of craft techniques – such as the bas-relief carvings in laterite along the Public Plaza, which

depict ripe paddy crops illustrated in the Odia Pattachitra (cloth-based scroll paintings) style. The Central Court houses a Crop Calendar, created on a stone inlay floor, which displays the harvesting cycles for the most prevalent crops in Odia farmlands.

Inspired by the Ikat patterns of Odisha handlooms, the louvered brick facade has been created using clay in three different colours to represent the geographical diversity of the region, asserting a distinct urban identity. The consequent fenestration system eliminates the need for mechanical air-conditioning in 80% of the indoor spaces.

The strategic integration of craft and technology via a locally sourced material palette. The rich narrative of laterite, khondalite, brass and brick was processed in-situ to lower the environmental impact of the project, and treated to address common concerns like slippage and cleaning—as essential for a public building.

1 **Special Features**

► Re-imagining the Relationship between the Citizen and the State: Developed for the Department of Agriculture & Farmers' Empowerment, Government of Odisha in the state's capital city, the project had an undoubted mandate to reimagine the government's relationship with its people. The original brief—that of a purely administrative facility—was modified by the architects in consultation with the government to include public functions and community spaces so the building would add to the city's social infrastructure.

The ground floor is a free-flowing public space, housing a learning centre, a gallery, an auditorium, a library, and training rooms. Through exhibitions, workshops, haats (weekly markets), lectures and school visits, this becomes a hub for imparting skills and sharing knowledge. The terrace houses urban farming exhibits and crop samples to educate the local populace on the best agricultural practices. Spaces that require restricted access are placed on other floors.

► The State as a Patron for Local Art/Craft Economies: The coming together of over 100 highly-skilled artisans to punctuate the project's built fabric with Odia craft at an architectural scale exemplifies how a government can be the prime facilitator of patronage for regional craft and local communities. For instance:

● The distinctive brick façade is inspired by the Ikat patterns of Odisha handlooms, created using clay in three different colours that represent the geographical diversity of the region.

● The tribal cast metal craft of dhokra is adapted to make light fixtures that wrap around the ground floor columns, as well as metal screens that line the building corridors.

2 An Exemplar of Sustainability: Low-Tech Climate Control: The design integrates passive and low-tech climate control mechanisms, for instance:

● DGU on all external fenestration with louvers and sill projections that act as shading devices—a system that reduces heat gain to 40% by regulating ingress of sunlight. The time lag achieved for heat transference through the cavity walls is approximately 6-7 hours, which aids thermal comfort.

● Bhubaneswar experiences significant drops in night temperatures through the year. Taking this into consideration, a simple Night-Purging system has been devised for cooling and ventilation. Through this mechanism, cool air gets pulled into the building through the northern façade when temperatures drop at night, by means of a custom designed 'low-tech' damper system. The high thermal mass of the building traps the 'coolth' and becomes a 'coolth' exchanger with the surrounding air in the day, when outside temperatures are higher. A deduction of internal air temperatures by 7-8°C (in comparison to the ambient temperature) has also been achieved through the night-purge system; the cumulative impact of these interventions has been that only 20% of the built spaces now require air-conditioning via HVAC systems.

Left ► Expressed in locally-sourced laterite, the entrance to the complex opens directly into the central court.

Top ► Dhokra (cast-metal tribal craft) has been adapted to an architectural scale, to create screens along corridors and free-standing partitions.

Green Building Features

▶ Indigenous passive design strategies contribute to the sustainability parameters of the building. The courtyard morphology and the inclusion of a stilt level aid optimal air circulation through the building, whereas the low window-to-wall ratio and deeply recessed windows and balconies help lower heat gain.

▶ The building profile along the Central Court is characterized by staggered masses which enables self-shading and blocks direct glare.

▶ The project also employs a material palette primarily comprising locally-sourced materials, which has helped in significantly reducing the building's carbon footprint.

▶ The façade has been designed to ensure 100% daylit internal spaces. Further, a double-skin facade strategy has been put in place at the complex, which consists of DGU on all external fenestration with louvers and sill projections that act as shading devices—a system that reduces heat gain to 40% by regulating ingress of sunlight.

▶ Taking this into consideration Bhubaneswar's significant drops in night temperatures, a simple Night-Purging system has been devised for cooling and ventilation. Through this mechanism, cool air gets pulled into the building through the northern façade when temperatures drop at night, by means of a custom designed 'low-tech' damper system; the high thermal mass of the building traps the 'coolth' and becomes a 'coolth' exchanger with the surrounding air in the day, when outside temperatures are higher.

▶ The time lag achieved for heat transference through the cavity wall is an optimal 6-7 hours, which aids thermal comfort. A deduction of internal air temperatures by 7-8°C (in comparison to the ambient temperature) has also been achieved through the night-purge system; the cumulative impact of all interventions has been that only 20% of the built spaces now require air-conditioning via HVAC systems.

▶ The project takes the immediate context into account foremost through its site planning, with the building footprint conceptualized keeping in mind the existing trees on site—all of which have been retained and incorporated in the landscaping.

▶ The landscape strategy entails the utilization of local flora in the lawns of the public plaza, as well as the creation of green terraces on the first and second floor of the building; the latter have been incorporated with the interior façade design, with each workspace provided with views of the central court, the terraces, or both.

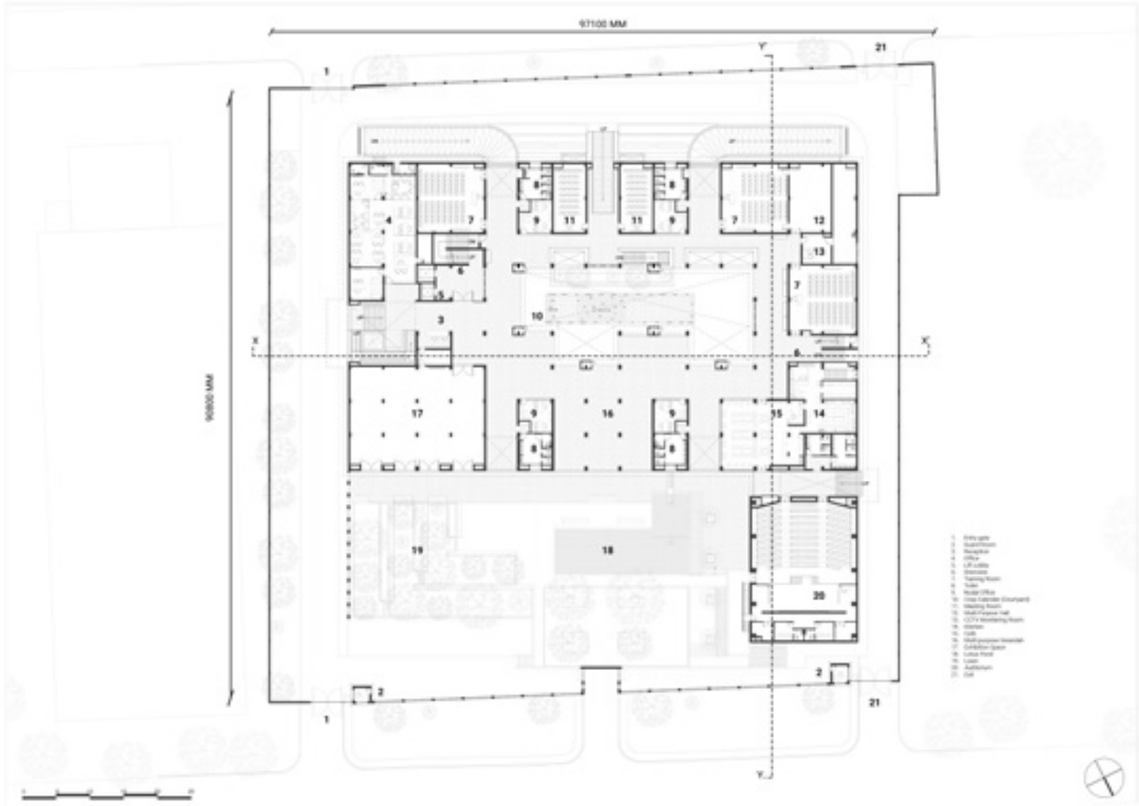
▶ One-fifth of the floor space at Krushi Bhawan is also dedicated to crop and fishery samples—housed on the terrace level, these urban farming samples serve to train the state's farmers in the latest agricultural techniques as well as educate the local population about the ecological diversity of the region.

▶ Other interventions include solar panels on the terrace, on-site rainwater harvesting and wastewater treatment, and an anaerobic bio-digestive solid waste management system which generates compost and fertigation water for the landscape.

About Ar Sidhartha Talwar

Sidhartha Talwar, a graduate of the TVB School of Habitat Studies, started his career with veteran architect Gautam Bhatia. He founded Studio Lotus in 2002 with Ambrish Arora and Ankur Choksi. With over two decades of professional experience, Sidhartha has driven the growth of the Studio with his domain expertise in residential design, hospitality and commercial spaces. The Studio has won awards such as the World Architecture News Awards, 2013, Design for Asia Grand Jury Prize and the National Police Memorial at Shanti Path, New Delhi, Creative Re-Use Award at INSIDE, the DOMUS Italia Award for Restoration and Adaptive Reuse, High Commendation at World Architecture Festival in the Office Buildings category, Special Prize at the Prix Versailles World Architecture Awards, making India's AD 100 list for six consecutive years, and a nomination in the Aga Khan Awards cycle 2013 among others.

Sidhartha has been a speaker at Arcasia Forum, 2019; The Design Perspective, 2018 and FOAID 2017. He has been visiting faculty for design at University School for Architecture and Planning and Sushant School of Art & Architecture.



GROUND FLOOR LAYOUT

Section YY'

Section XX'

SECTIONS

COMMENDATION AWARDS
PRIVATE RESIDENCE
AR. SUDHEESH S. (TRIVANDRUM)

A HOME IN BETWEEN
CHATHANOOR, KOLLAM, KERALA

Cost ► INR 12 Lakh
Built-up Area ► 950 sq.ft

This house was designed as a small, but big home for a lottery seller, his wife and their 5-year old son, with a grandmother visiting regularly. It was built with a limited budget on a small sloping site in the warm humid tropical climate of Kerala. Instead of dictatorially curating each part of the space for the client, this residence negotiates the dual existence of ownership, both by the architect in terms of his designed signature object, and by the user in terms of the intimate customisable spaces where he can design how he uses them.

This is an attempted mediation between home and house, user and designer- the former accommodating the intimate spatial personalisation and memory formation by the client, while the latter becomes the image, or signature, of the architect.

The Content

'A Home in Between' is a design exploration of Juhani Pallasma's essay *Identity, Intimacy and Domicile*, which explores the duality of a modern residence which tries to co-exist with the contradictory ideas of home and house.

A "house" is taken to mean the exterior skin that engulfs the home as an object of imagery, with an individualistic formal character and contextual in its voidal response to the site boundaries.

On the other hand, the "home" is seen as a multifunctional interior is a spatial construct transforming itself over time as it interacts with the user on a daily basis. This instates the personal attachment between them, forming their own idea of a "home."

Interiority

Instead of considering the number of rooms as a criterion of a "big" house, They form an individual's personal activity space when needed, and enlarges into a larger spatial construct for the family when required. The buffer spaces are where the child can appropriate his activity niches, allowing him to build his own perception of "home". This personalization acts as a binder in memory formation and increases personal association with the space.

Exteriority

The exteriority is the outer façade forming the "house." It is the response to the surrounding conditions of boundary and, through its porosity. It creates the identity of the built form, modest in its content, while strong in presence among the ornate houses around, bearing the architect's designed signature. The facade overlooking the agricultural land at the south of the site is made of interlocking bricks with specific openings framing the open space. The porotherm brick wall in the north helps to reflect the heat falling on the façade of the common areas and solid with curtained windows along the cooking and sleeping spaces. The frontage facing the main vehicular approach road, is the least porous face, with only a side entrance door and the ventilating porotherm jali window. A void carved out of the stark white solid, creates a subtle verandah space recessed within the front façade. The tree-covered backyard in the west has a large verandah with a common sitting space. This face is the least porous, with the side entry door and the ventilation porotherm jali window.

Thermal Comfort

The built form is aligned along the east-west axis. The longer sides with the major openings face north and south, allowing ample wind movement. The house has a temperature condition of about 5 -7 degrees lesser than the surrounding houses due to usage of porous jalis, weinerberger materiality and thermal buffers.

Materiality

Walls: Thermally insulated Porotherm bricks for walls and jalis, form the skin of buffer courtyards. They allow ventilation and cut the tropical sun for thermal control. The remaining walls are made with locally available concrete interlocking blocks.

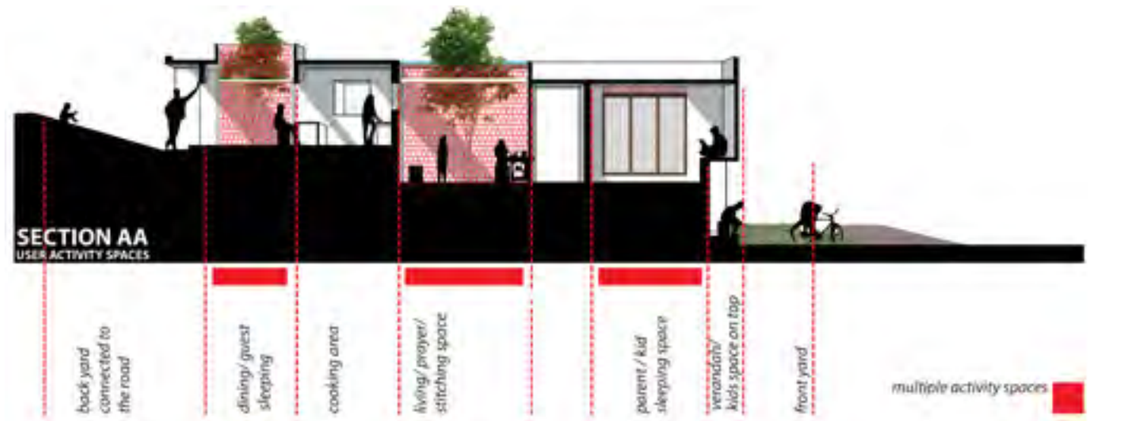
Windows: the sizes derived out of block sizes to avoid brick cutting.

Doors: old wooden doors were sourced and reused from demolished houses

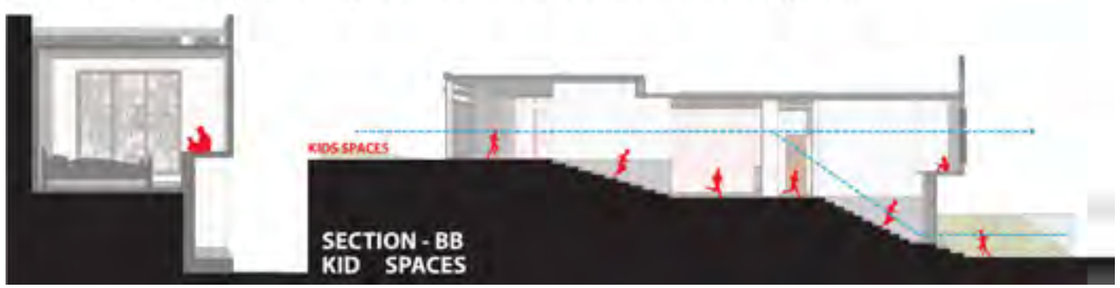
Lintels: Metal pipe lintels cut into the bricks to avoid concrete lintels

About Ar. Sudheesh S.

Ar. Sudheesh S., graduated in Architecture from the TKM College of Engineering, Kollam in 2008. He started the Ego Design Studio in 2010 at Trivandrum, Kerala along with Ar. Niranjan C Warrier, Ar. Abhilash U.A., Ar. Jayaram G.S., Ar. Aravind T. and Ar. Jerry Sam Joseph. They have handled various architectural, product designing and interior design projects. Though the Studio has no fixed design expression each project aims at reflecting the end-user and its spatial context, equally celebrating both, their flaws and strengths.



The buffer spaces are arranged for dual activities such as the courtyard can be used as a play area by the kids and stitching area for the user, sleeping area for the guest, the study and sleep area for the kid and prayer area



COMMENDATION AWARDS
PUBLIC BUILDING
AR. UDAY ANDHARE (AHMEDABAD)

NATARANI AMPHITHEATRE
AHMEDABAD, GUJARAT

Site Area ► 6,000sq.m
Built-up Area ► 2,100sq.ft
Amphitheatre Capacity ► 385 Persons
Climate ► Hot dry / humid
Temp► Summer 23°C/46°C □Winter 10 °C/23 °C
Micro Climate ► Local humidity levels vary due to the proximity of the river.

Cultural Backdrop: Natarani Amphitheatre is a unique open to sky amphitheater and an integral part of the world-renowned Darpana Academy of Performing arts. This is the only state-of-the-arts venue in Ahmedabad city and the state of Gujarat to host high quality performances from around the world. Every year since its inception, there have been about eighty events including dance performances, concerts, plays, cultural programs and films. It has hosted seven major international festivals every year. It also has been the nerve center for young writers, poets, musicians, and activists to hold informed performances.

Physical Backdrop: The site for the amphitheater is adjacent to the Darpana Academy of Performing Arts dance school built by Achyut Kanvinde in 1962 and in line with several cultural landmarks along the river edge, such as the Mill Owners building by Le Corbusier and the Gandhi Ashram building further along the river. The six hundred year old walled city is seen across from the river on the opposite bank. The site is primarily accessible from a neighborhood street to the west and provides a visual link to the river on the east suggesting a physical link down to the river to establish a vital cultural connect. The Sabarmati riverfront development project in Ahmedabad impacted the existing Natarani theatre precinct. A major chunk of the stage area was lost to the riverfront road and its sidewalk, rendering the theatre inoperable for several years. It is in the context of this reality that its re-imagination was both imperative and desired for its activities to flourish. The new proposed layout not only attempts to mitigate this situation but also improves upon its existing infrastructure, capacity and reestablishes its centrality in the cultural life of the city.

Program & Client Brief: A state of the art amphitheater, accessible green rooms, public toilets, mechanical service spaces, improved sound and lighting capabilities with a metal catwalk that floats over the seating, were the main programmatic components of the project. A mandate from our client to use every possible strategy to be sustainable and economical helped anchor the project.

Architectural Response: Rebuilding of the new performance space was on the site of the older amphitheater, built in 1994. Critical to our intervention was the adjacency of the existing brick acoustic wall to the river edge, and the modernist Darpana dance school building by Ar. Achyut Kanvinde. The project mandated a meaningful negotiation of these structures and a 4 m contour drop, stepping down from the Dance school to the river sidewalk, integrating the functionalities of the amphitheater as a dynamic spatial experience. The performance space is conceptualized as a 'well', on axis with the dance school. Acoustical balance is achieved by architectural manipulation, cupping space within the sweeping exposed brick wall, the seating tiers and the existing acoustical backdrop to the stage. Memories of the past are retold here, making reference to the existing ensemble of buildings, walls and old trees to create a renewed sense of place.

Top ► Access from riverfront to upper plaza

Right ► Early evening use of the theatre

Project Details: The proximity of the existing modern era building inspired the warp and weft of the new theatre. Seeking continuity, the articulation of elements in exposed concrete, steel and lime brick masonry negotiated the edges of the old. The natural contour provided the necessary depth below the concrete cascading tiers to house the green rooms and utilities including the infrastructure for air circulation and cooling. The cross section of the tiered theatre culminates at the stage with its huge water harvesting tank below and the towering scale of the acoustical wall as its backdrop. Backstage assess from the riverfront affords movement for services as well as universal accessibility, seating and the public restrooms. The volumes of the services are tucked into the earth to create a contiguous space adjacent to the plaza as a roof top garden overlooking the river.

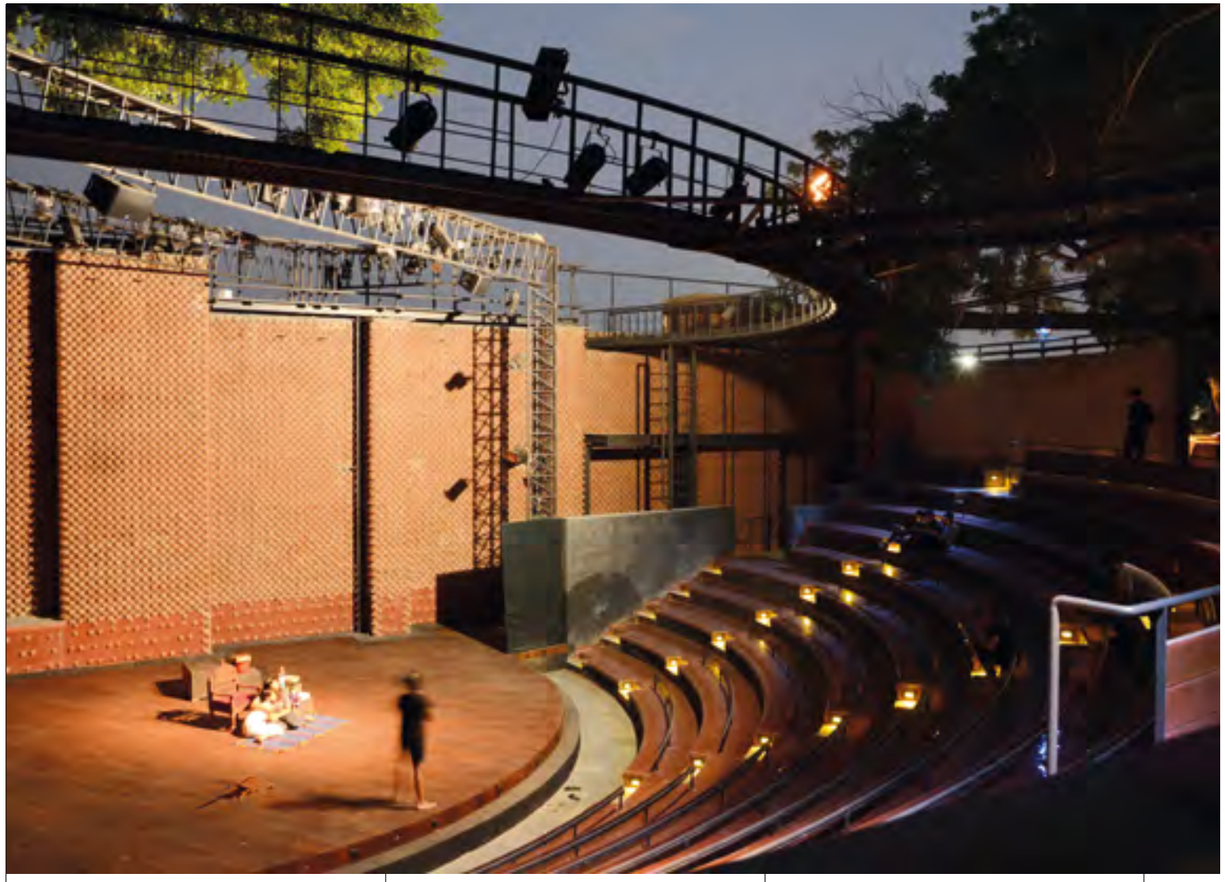
Juxtaposed with the solidity of the brick mass around is the curved cantilevered me catwalk. The catwalk hovers lightly over the seating and is a vital entity that provides efficient accessible mounting for lighting, sound and projection equipment. Its structure comprises a cantilever composed of a system of vertical supports and tension ties that prevent deflection, while compression struts minimize vibrations to maintain a shake free lighting system. The catwalk is radial and stiffened by its railing structure, which acts like a truss transferring forces in direct action. Its corners are braced making it stiff in the horizontal plane, making it an economical and efficient assembly. Composed of square hollow sections, plates, pipes and steel cables, the gesture signifies an important shift towards addressing the language of infrastructure as an expressive engagement with its context. The use of confined masonry and composite R.C.C elements achieves structural stability for seismic zone 4 code provisions, ease of construction and long-term resilience.

Materiality: The earthy seating tiers, covered using traditional china mosaic is expressive and resilient. The dark charcoal and terracotta of the lime-plastered walls compliments the grey of the exposed concrete copings and rough pebble crete in high wear thresholds. The stage is built with a hard wood assembly flooring, while rough grey stone slabs define the entrance plaza that unites the semi-open and open areas of adjacent buildings, thus completing the material palette. All metalwork is painted charcoal black, which essentially gets negated at night, during performances. The physicality and scale of the theatre reverses dramatically at night with enhanced lighting and a sharp central spatial focus.

Sustainable design strategies are at the core of the architectural gestures to define an expressive resilient character. This approach underscores the fact that it is imperative to address issues of thermal comfort and resilience seen as integral to the thought process of design and not a mere overlay. Its salient features include,

► Use of emissive and resilient materials: All debris from site and adjacent old structures was reused to make new lime – surkhi (brick dust) stabilized bricks.

► Use of lime mortar and plaster in masonry construction along with dolomite plaster inside spaces to provide the necessary thermal advantage and resilience.



► Shielding from heat: Since this facility is open to sky, preventing the structure from gaining heat was an important design objective and all services and green rooms were located below the theater steps using the comfortable hollow of the space.

► Thermal draining of structure: Using rain water to keep the structure cool. A massive, cylindrical brick capsule located below the stage is the rainwater-harvesting tank with a capacity of 1.0 lac liters. It collects all the water from the tiered steps to become a cool thermal storage mass below ground. A low head pump pushes this water to a high level where it is cooled by a radiator through an evaporative process, which consumes very little energy. The cooled water then comes down by gravity through radiant pipes located under the seating tiers and empties into the tank. In this process, it absorbs solar heat from the entire structure, and keeps it cool and maintains the structure temperature below human skin temperature. The exposed seating becomes comfortable to sit on, maintaining a comfortable ambient level.

► Displacement ventilation: While the structure loses its heat due to cooling of the structure, a fresh air ventilation system runs in conjunction with structure cooling, to provide a gentle flow of cool (as it absorbs the temperature of the structure) filtered air from several small outlets distributed along the seating tiers under the seats. An air handler situated in the mechanical room below the tiers, sucks fresh air from outside and gently pushes air into the theatre space. This forms a blanket of cool air in the seating zone thereby displacing the warm stale air. It improves the microclimate of the immediate space, making it comfortable for summer evening performances extending into the night.

Capacity and Use: The theatre seats 385 persons including 4 stations for wheel chair access. Most performances begin at 8 pm. The experience of the theatre in the night dramatizes the performance space where the stage, the backdrop and the gaze of the patrons come into a sharp direct relationship, melting the metal and ensemble of the infrastructure into the darkness under an open sky. The days quiet and begin late. This time is used by artists to familiarize them to the space and imagine their act as they set up their events and rehearse. In the meantime, the sun invades the space enlivening the surfaces and elements to make this space, re-appear in a new light.

Broad Significance Of The Construction Process: The making of Natarani engaged several skilled lime masons who trained others during construction. Masons demonstrating a dying craft of making, brick masonry cylindrical capsule modules for harvesting water, built the rainwater tank capsule below the stage using a practice prevalent in Saurashtra, Gujarat. A team of dedicated lime masons assisted in its making along with a young batch of masons learning the craft. It gave prominence to the use of pre- bagged lime mortar mixes being used in masonry construction by inducting the services of a new local startup that used recycled brick waste from the city dump and the site to prepare mortar and plaster mixes along with lime. Local carpenters and metal fabricators executed a complex catwalk structure through a very tenacious process of engagement with the design team on site.

Universal accessibility norms were followed to access the stage, seating and restrooms for differently abled as a very important design consideration.

Post occupancy readings: Having attended several performances at the venue since it opened, It was gratifying to overhear favorable comments about its character, ambience, thermal comfort and acoustics. The footfalls have improved due to its improved comfort and quality of performances. It has attracted several important national and international theatre and music personalities who have expressed great satisfaction at the quality of experience performing in this venue. The intimacies of connect between the performer and the audience is maintained despite its large open scale.

The thermal performance of the space validates the choices of simple technologies deployed for the first time in such a setting with great success.

About Ar. Uday Andhare

Ar. Uday Andhare as the Design Principal at Indigo Architects since 1998. He believes in a technically appropriate and ecologically sensitive approach towards design, woven with traditional wisdom. He is a visiting faculty in architecture, urban design and the Masters program in design at his alma mater, CEPT , Ahmedabad since 1998.

Ar. Mausami Andhare, practicing architect and Principal at Indigo Architects, heads the studio in a range of educational, residential and cultural institution projects. She's been instrumental in broadening the interior and furniture design range at Indigo Architects.

COMMENDATION AWARDS
GROUP HOUSING
AR. SANJAY PURI (MUMBAI)

RAS HOUSES
RAS, RAJASTHAN, INDIA

Cost ► INR 40 Lakh (Approx.)
Built-up Area ► 2,04,719sq.ft

A series of low rise volumes amidst open courtyards and landscaped gardens create 61 executive guest house, 47 hostel for bachelor accommodation & 18 studio apartments. Located in Ras, Rajasthan in India, the planning of the internal spaces respond to the desert climate of the location. Deeply recessed windows, open and sheltered courtyards, naturally ventilated circulation spaces & cross ventilated living spaces contribute towards reduced heat gain and naturally cooled interiors.

Each part of this housing development is planned at the existing levels of a contoured site with contour differences of 3 to 8 metres, resulting in economy of construction, minimal cutting ad filling of soil & a resultant height variation that creates character. The organic layout of the housing is derived from old Indian cities with constantly varying scales and changing of axis to create individuality for each part of the housing.

The minimal intervention with the contoured site, low rise planning, facilitation of natural light & ventilation, reduction of heat gain, water recycling & rain water harvesting, use of local labor, fly ash bricks and use of residual energy from a nearby cement plant render this project economical & sustainable. The total area of 204719 sqft was built within INR 1300 per sqft.

Color acts as an integral parameter in differentiating volumes as well as identifying circulation spaces interestingly while alluding to the colors of the region. In Rajasthan colour plays an important role in the lives of the people who wear bright colours daily. Most cities in Rajasthan state are identified by a colour. Jodhpur in Rajasthan is known as the blue city with traditional homes in hues of blue lime plaster. Jaisalmer is known as the yellow city for its traditional houses being built in yellow sandstone. The deconstructed cubes sport varied hues of the sandy region, at different times of the day – visually differentiating the stepped, recessed volumes as well as identifying circulation spaces. With lighter hues on external walls to reflect heat off the surfaces, and darker tones indoors to create a cooler feel, they add impact to the highly 'responsive' design solution.

Ras houses is composition of rectilinear volumes rendered in bright colors derived from the traditional Rajasthan color palette adding to the contextual response of the design to its location. The design is responsive to the desert climate and the culture of Rajasthan in addition to being site specific & imbibing the old Indian city's organic character. It is a low rise housing solution in response to its location, the climate & tradition creating a contextual & sustainable design.

Material & Construction Details:
► The building design is low maintenance with sand faced plaster and paint finish.
► The RCC frame structure is created from the cement sourced within 1 km of the site reducing transportation costs.
► Landscape is done with regional plants that require minimum water.
► All windows are deeply recessed to reduce the heat gain.
► All materials used internally too are low maintenance with tiled flooring, textured paint finished walls.

Special Feature:
► The design integrates the building with the natural contours of the land thereby reducing the cutting and filling of the variations in the ground level. All apartments face north, north east and north west reducing the heat gain from the south completely since the sun is in the southern hemisphere all year and temperature are in excess of 40°C for 8 months of the year.
► Cross ventilation is facilitated in all apartments as well as the circulation spaces.
► Fly ash bricks made from the waste of cement plant nearby and is used for all the walls.
► The RCC frame structure is created from the cement sourced within 1 km of the site reducing transportation costs.
► The building is low rise eliminating the need of mechanical vertical elevators to a minimum only for handicapped people.
► All windows are deeply recessed to reduce the heat gain.
► Natural light for all rooms and toilets.
► All lighting external & internal are in LED.
► Lighter hues on external walls to reflect heat off the surfaces, and darker tones are used indoors to create a cooler feel.
► A lot of landscaped green spaces have been planned around the development, to provide relief from the sandy outdoors. Thus the corridors become cool, airy and sheltered walkways allowing views of the landscaped spaces on either side while walking through and offering interesting experiences each time.

About Ar. Sanjay Puri

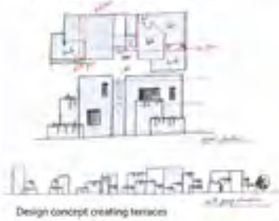
The firm Sanjay Puri Architects is listed in the top hundred architects worldwide by Archdaily and Architizer and in the top 136 design firms worldwide by New York. The firm tops the list of WA Community award winners across the world. With 160 international and over 100 national awards, the firm has won architectural projects in Spain, Montenegro, Mauritius, Abu Dhabi, Dubai, Montreal, Oman and Dallas in addition to projects in forty Indian cities. With a diverse portfolio of townships, schools, hotels, retail and office buildings, they continue their quest for creating innovative design solutions that are sustainable on a large scale. With a firm strength of seventy two, evolving design solutions that are contextual and creating spaces that revolutionize the way they are experienced form the essence of the firm's design philosophy.

The firm has won many awards from : World Architecture Festival's Best Housing Project of the Year, Amsterdam; World's Best Residential building in the LEAF Awards, London; Chicago Athenaeum Museum of Architecture & Design's International Architecture Awards; World Architecture Festival Awards; Society of American Registered Architects Awards (SARA), New York; Architizer A+ Awards, New York Hospitality Design Awards, New York.

SECTION

Organic village layout

Imbibing the organic character of old Indian cities and villages, Ras houses is created as a series of winding streets interspersed with landscaped spaces.

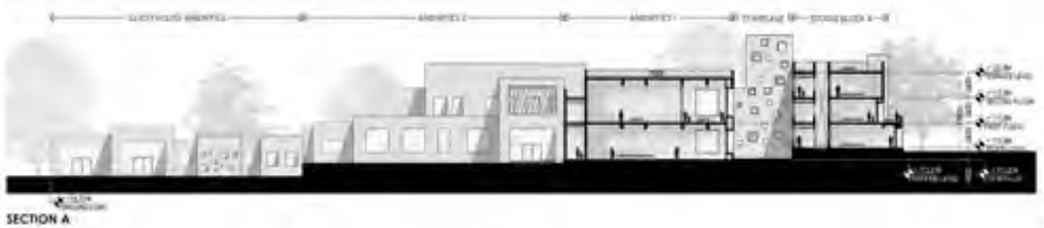


Design concept creating terraces

Colours of Rajasthan

Color acts as an integral parameter of this design in differentiating volumes as well as identifying circulation spaces interestingly while alluding to the colors of the region. With lighter hues on external walls to reflect heat off the surfaces, and darker tones indoors to create a cooler feel.

Traditional wear in Rajasthan



SECTION A

SECTION B

SECTION C

KEY PLAN

COMMENDATION AWARDS
INDUSTRIAL ARCHITECTURE
AR. DINESH PANWAR (NEW DELHI)

STONEX INDIA PVT. LTD
KISHANGARH, RAJASTHAN

Built-up Area ► 20,000sq.m

Stonex India's administrative and industrial complex in Kishangarh has been conceptualized to serve as an eminent landmark in Kishangarh. Instead of erecting a factory-processed industrial shed that focuses on the product and does not communicate with the people who inhabit it, the Stonex factory is developed as a native production-house, geared for excellence and innovation of the global order, while successfully carving out a niche of its own amidst the industrial landscape.

A product of simultaneous interactions between dynamic ordering of principles across varying systems and scales, and responses towards the site, the architecture is an attempt to manifest the user at the centre of the design process. Drawing inspiration and making reference to the regional Sonpura temple, the building crafts a sense of belongingness and a sense of place by using local rubble as a muse for its own identity. Keeping the worker who inhabits the typical stone processing factory of a similar scale and nature, under harsh working conditions, the design of the complex is an attempt to enable a better work environment. Typically, the workers work in harsh temperatures of around 48 degrees Celsius with scorching sun and dry heat throughout the day. The production unit is thereby designed to keep the inside space comfortable throughout the day even when the temperature outside are at peak.

Materials/ Construction Details: The orientation and design of the building facilitates climate

responsiveness. The hot and dry climate of Rajasthan is combated by the partly sunk mass, staying cool during summers and warm during winters. This is achieved by the natural phenomena of Earth Berming and Earth Coupling. The temperatures indoors are regulated with the help of radiant cooling, allowing for a 60% efficiency in the running cost of the building. Also, this has led to HVAC load cutting by almost 40%. The floor slabs are additionally radiant cooled to regulate temperatures.

The skin of the Office building sandwiches a puff panel between two laminam panels to further insulate the interiors. The façade is complimented by an enveloping stone screen that is fabricated using the waste stone from a nearby quarry and the stone wastage that is generated on site. This screen provides solar shading from the south-east and west glare. A playful, visual appeal is created by the light and shadow of interwoven stone blocks that appear to be floating at different levels.

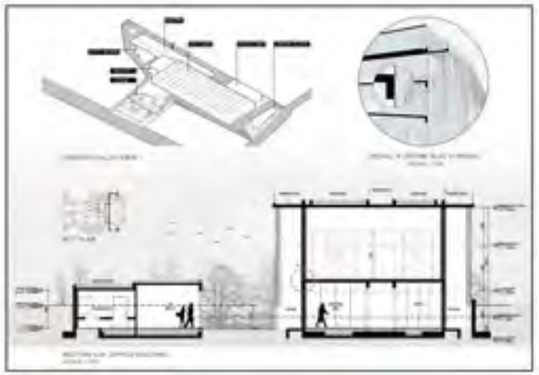
The processing plant and display area are both well insulated, using local rubble walls of 550mm thickness towards the east facade and insulated galvalume sheet in the triangular flutterswith a blank facade towards the west. Glazing and lovers at the lower level help the viewer connect visually with the landscaped surroundings while the louvers and glazing towards the north light develops a wind draft to release hot air inside and bringing north light inside. While the local rubble masonry facilitates the passive design in order to optimize the climatic conditions, there is also an intent to involve the local masons, and empower the craft and the craftsmen.

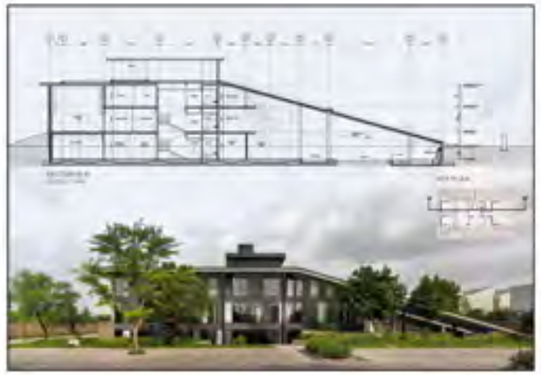
Special Features: Functionality drives the design; the linear production process is used as a design determinant to avoid the workers being forced to do manual lifting, prone to accidents, which is otherwise a common process. Two people can therefore, bring in a 25 Tonne block from one end, process it, display it, and dispatch it on their own. Architecture has opted to campaign human life; by forcing better working conditions, physical and emotional well-being, creating comfort and thereby ensuring better communities and a richer built environment.

Prefabricated white metal flutters give the entire structure a buoyant profile, when looked at from afar. The stone buttresses make the building appear grounded at a more proximal viewing. The sides facing east and west are mostly blank, barring the small windows that connect the occupants with the surroundings. The windows also create a wind draft across the height of the shed expelled through the ventilators along the north light trusses therefore avoiding hot pockets at the top and effectively cooling the building by about 10-12 degrees. The building is designed such that the spaces are used judiciously, allowing for maximum possible green cover and soft scaping. Other sustainable measures include the use of bio STPs that recycle waste water and use it for landscaping and flushing toilets, 100% rainwater harvesting that keeps the groundwater table recharged and soft scraping inside that aids the creation of shaded areas to create a microclimate and keep overall temperatures of the facility low.

About Ar. Dinesh Panwar

After graduating from the Institute of Environmental Design, Dinesh Panwar interned at Kanvinde, Rai and Choudhury and considers Ar. Achyut Kanvinde to be one of his biggest inspirations. Dinesh founded a design studio, Urbanscape, in 2008. He believes in a process-driven methodology from conception to execution with the aim of user-centricity and client satisfaction. His design language relies on context, programme, climate and site topography. Dinesh likes to experiment with forms and facades to create outcomes that are sustainable, functional as well as aesthetic to achieve calming, pragmatic and timeless spaces. The studio has won several international awards and accolades by way of media recognition.





COMMENDATION AWARDS
YOUNG ARCHITECT'S AWARD
AR. MANASI PULIYAPATTA (KERALA)

ARCHITECT'S OFFICE
PALAKKAD, KERALA

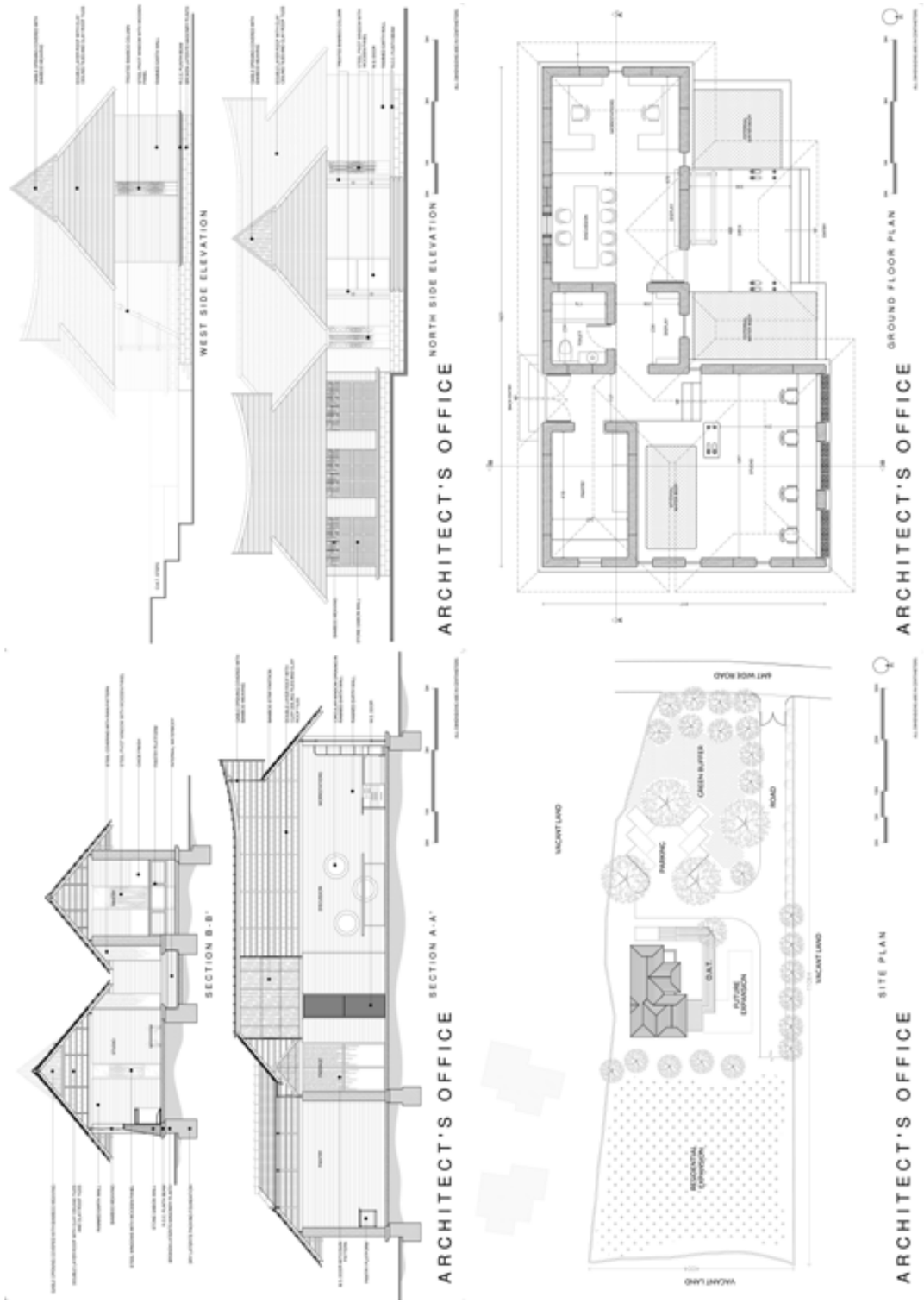
We have been quite determined from the beginning that an office space, when we have one, should reflect what we hold close to our hearts. We always wanted our buildings to stand out by blending in! And that's why we designed this office space the way we have – as if the earth came up and branched out into making tiny spaces for its natural inhabitants, or as the mud that grew out of mud, it is a place made with as much love as with water, earth, a piece of the sky! This is a building, which we envision, will grow organically along with us like a living being & What is built is just what is necessary for the current functional requirements.

Natural slope is utilized to form the access steps which acts also as an open air theater and the open sit-out is planned to serve as a stage whenever such gathering happens. The sit-out is a floating deck on a water-body which is part of a water treatment system connected with the internal pond. Sit-out opens to a hall where the initial discussions happen. The work spaces of the founders are planned in the same room. Wash room is next and the corridor leads to the workstations of the team adjacent to the slit courtyard with the second water-body. The level difference of the land will reflect here as two steps level up. The store/small kitchenette is at the other end of the corridor which opens to the side yard.

Earth walls, bamboo pillars and partitions, clay tiles, oxide flooring, up cycled wood and broken laterite which is considered as a waste in nearby quarries comprises the prominent vocabulary. Kerala has mostly been spared when it comes to natural calamities and during the construction we have experienced the first flood of our times. Roofing before monsoon was our plan but that year's summer rains held on till monsoon and our mud walls were left open in rain for 6 months. The construction has thus been marked by rain and that is exactly why we used rain also in the theme when it came to designing the interior. The rain pattern in the shutters is been created by parametric design with random equation.

About Ar. Manasi Puliyapatta

Manasi Puliyappatta hails from the village of Pallippuram in Palakkad. She graduated from MES College of Engineering, Kuttippuram and she co-founded Bhoomija Creations along with husband, Ar. Guruprasad Rane in 2011. Bhoomija which means 'that which is born of the ground' sprouted as an extension of their dream of creating nature-inclusive, people-friendly, and site-specific architecture. Bhoomija has done an array of works exploring the sustainable quotient in architectural practice with rammed earth, CSEB blocks, cob, wattle & daub, bamboo construction and combining it with the contemporary vernacular style they practice.



COMMENDATION AWARDS
ARCHITECTURE STUDENT OF THE YEAR
NIKHIL MANIAR

REVITALISING THE ACT OF COMMUNITY LIVING IN THE INDUSTRIAL CLUSTER OF MORBI
MORBI, GUJARAT

The phenomenon of people moving from a rural area to a more urban area in search of better job opportunities is age-old. According to Census 2011, 453.6 million people rely on internal migration in India for different reasons and durations, namely to escape poverty, improve the income and lifestyle of their families. The study focuses on internal migration which is further divided into Inter-state and Intra-State migration of labour that is from rural/semi-rural areas to urban areas.

The two aspects i.e migration and urbanization are interlinked, they can be looked at as global as well as local processes that influence both, the areas of destination as well as the origin. Urbanization leads to expansion of the city giving rise to the emergence of housing clusters, Industrial clusters, Special economic development zones along the periphery of the city, thus creating job opportunities. The process of migration to these urban areas is an important pathway out of poverty, diversification of opportunities, broadening one horizon, and simultaneously a process of skill formation. Workers well set in the urban setting having gained knowledge to the recently acquired new skills, usher their relatives and co-villagers to the urban areas, who act as helping hands in contributing to the household income.

The recent resurgence and demand in the potential of small enterprises in promoting employment and economic generation have led to the development and growth of 'industrial clusters'. A direct relation can be brought about between clustering and urbanization. The development/presence of clusters in small cities or towns provides job opportunities that attract workers from the nearby areas as well as the other states. In addition, it also diverts them from shifting to the already dense metropolitan cities thus creating urban pockets throughout the country. The industrial clusters are home to numerous unorganized and a handful of organized micro, medium and small enterprises (MSME's), both of which are usually machine-driven, where skilled labour is required to the minimum. The workers approaching these factories are illiterate, young, with an intention of residing in the urban setting for a long time to generate maximum income. Amid their journey to get urban exposure, the workers tend to settle for subpar wages, inferior living conditions, poor working conditions, social exclusion, and no healthcare facilities.

The thesis is a modest attempt to examine an industrial cluster in India and address the problems related to migrant labour in the cluster. An equitable solution will be proposed which will benefit the laborers as well as heighten the productivity of the cluster. The study narrows down to the state of Gujarat, which in recent years has been a favorable destination for migrants. The presence of infrastructural facilities, industrial and economic development makes it an important hub for migrants. Further on, the dissertation narrows down to the town of Morbi, which is home to a booming ceramic cluster and proudly holds the title of 'The Ceramics Hub of India'. The ceramic cluster is only 6 decades old, however, before gaining the title of the ceramics hub, Morbi was closely associated with the manufacture of building products, namely the roof tiles called 'Nadiya'. As of today, the cluster houses over 1000 manufacturing units and provides employment to over 60,000 migrants.

The study presents selected findings of research into the living conditions of migrant factory workers in the industrial cluster of Morbi. A total of 7 factories, having 795 workers are surveyed on basis of the product they manufacture, the quantum of production, the type of workers required to manufacture the product, the year of establishment, and the scale of the category they fall under i.e MSME. The sampling method of survey was adopted under which 38 workers from different factories were interviewed. The survey concludes with an in-depth analysis of the living conditions and classifications of the family size of these workers.

After conducting the required research, studying the lifestyle of the migrant factory workers, the thesis aims on improving the lifestyle of the factory workers residing within the cluster by providing a sustainable living environment with a sustainable neighborhood. The objective is to inculcate the idea of a community and neighborhood, fostering interaction between workers of different factories and providing access to public amenities within reach. Reducing ceramic waste by exploring effective construction solutions from ceramic waste is also one of the concerns the thesis would like to address.

The presence of negative patches or empty pockets in-between factory premises within the cluster provide the ideal opportunity to demonstrate the subsequent proposal. The program is envisioned as a prototype, which can be multiplied within the empty pockets, stresses on aspects such as cost-effective and rapid construction using precast construction techniques, while keeping in mind the seismic zone requirements. Before commencing the process of design, analyzing the architectonic elements that go into defining the character of houses in Morbi and their impact on the immediate context help form the founding principles to the design. The idea is to use the context as a "tool box" to understand the character of development in Morbi. Learning from Morbi, finding the essence of development, the character of the streets, the hierarchy of spaces, Identity of the houses, form the basis to the method of proposing a housing scheme catering to the industrial population. Elements such as streets, courtyards, chowks, plinths, otlas, staircases, terraces, dhabas, and self incrementation capabilities define the character of houses in Morbi.

Based on the study of the existing fabric of Morbi and Implementing the principles as studied in the book 'Eyes on the Street: The Life of Jane Jacobs', the proposal strives to attain the street character of Morbi by introducing chowks, courtyards, bends along the road to a point where streets no longer just serve the purpose of movement, they develop as key elements for communal interaction. Further on, 2 public amenity structures are provided along the chowks, I.e a schooling facility as well as a vocational training facility. Not only does this ensure activities along the chowks throughout the day, but also caters to an important need of the migrants. In addition to the above, the concept of the housing facility revolves around a base unit, a cube of 3x3x3m, which when multiplied, forms one module, i.e one house. Such agglomerations of modules, when interlocked, flipped, mirrored together form a cluster with pockets of interactive junctions, thoroughfares and terraces. A total of 3 different types of clusters are formulated based on the number of migrants each can accommodate. Besides catering to residential activities, the cluster's host a series of interactive nodes in the form of a hierarchy of courtyards, otlas and terraces overlooking these. Additionally, each cluster hosts a small public amenity building titled the 'Vishramalaya'. As the name suggests, it is a resting place, which is porous and multi-leveled hosts a series of public amenities, recreational and interaction spaces within it. Built around a courtyard, amenities such as public toilets, ATM's, Banks, Doctor's Clinic, Society Office, Post Office, Kirana Stores, Co-Working space, informal stalls/vendors, drinking water fountains & news-paper stands are proposed. These structures also connect to the terrace, and with the introduction of overhead connections at the terrace/roof level, bind the cluster together by creating a thoroughfare, which induces communal interaction on the floor above.

Based on the living scenario of the workers i.e, Single, Extended Family, Nuclear Family and Joint Family, the modules are designed to cater to the needs of each. The housing module addresses the issues/problems of the migrants by breaking up the module into private, semi-private and shared spaces. The shared spaces, classified as 'Future Development' give an economic opportunity to the migrant. For single migrants, who do not see any future prospects of families are provided with dormitories.

The thesis tends to address the complex demands put forth by rapid urbanization, culture, and climate in the industrial environment. The program provides a solution to a complex problem, one which can be seen in all Industrial clusters in India: providing reasonable accommodation to the factory masses. That being said, the envisaged project adopts principles of design from the existing fabric of Morbi, while significantly reducing ceramic waste by using it as raw material as a partial replacement of aggregates and sand during manufacture. The manifesto does adopt certain principles stressed by Ar. Raj Rewal I.e the extensive use of courtyards, scattering of terraces, defining gateways to name a few; however, reinterprets and defines them according to the Industrial setting of Morbi. The proposal, envisioned to improve the quality of life of the migrant factory workers while being self-sufficient aims at becoming an integral part of the industrial setting. It is visualized, the design will eventually blend in with the existing fabric, where it will be used as a thoroughfare by the people residing, working, visiting the vicinity, thus fostering communal interaction.

About Ar. Nikhil Maniar
A graduate from Rachana Sansad's Academy of Architecture, Mumbai, Nikhil strongly believes in the ability of architectural design strengthening our society and culture and simultaneously having a positive effect on the world. He is an avid automobile enthusiast and loves to travel and explore new places from time to time. At the same time, he is a team player who is organized, self-driven, helpful, and a fast learner.

FOCUS STATES ARCHITECTURE AWARDS **ARCHITECT OF THE YEAR**
AR. ARJUN MALIK (MUMBAI)

HOUSE OF THREE STREAMS
LONAVLA, MAHARASHTRA, INDIA

Plot Area ► 2 Acres
Built-up Area ► 12,245sq.ft

The topography of the land, the material memory of the surrounding forts, the light of the forest, and the deep water discharging ravines have created a dominant palimpsest of contextual parameters onto which the house has been woven.

The resonance of the large load-bearing wall that traces the ridge between two ravines anchors the proposal and establishes itself as a "found" element, resonating the contours and material of the walls of the Tungi and Lohgad forts to the east and north of the site. As the site flows to Pawna lake, so too does the house, picking clearings within the trees to capture the views of the lake.

Formal planning strategies are incapable of absorbing the radical flow of the land and water and everything from the spatial quality to the material language echoes the spirit of the site.

The wall ruptures at points where the verandahs bridge over the ravine and continue on into the forest to the second ravine beyond the ridge. Sleeping spaces are embedded in the forest while public spaces assume the mannerism of suspended flight to the north and east.

The roof follows the topography of the perch points, tracing the path laid down by the hill; its language of fletched rafters and weathering zinc a natural foil to the robustness of the locally quarried basalt. Its contours reference the horizon and the hill.

The deconstructed language of the tree-like structures that support the roof liberate the edges where shaded spaces and the forest merge.

The engagement of the "made" with the "found", the subservience of the former to the latter is the only constant within this matrix of flux as the elements interweave to create the space of encounter with the forest and the hill.

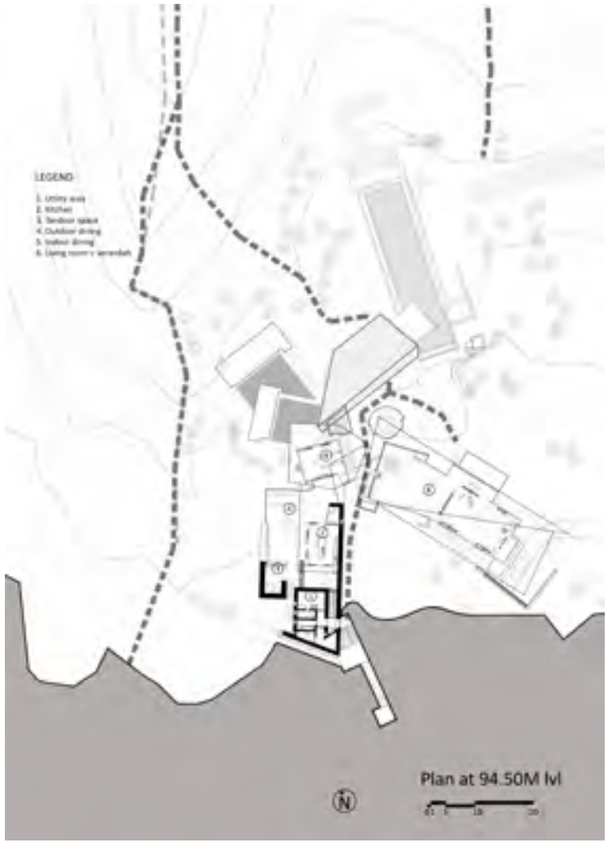
Materials used: Locally mined Deccan-trap stone, Zinc roof, Saal wood, Teak wood, Glass, Kota Stone, Corten steel, granite.

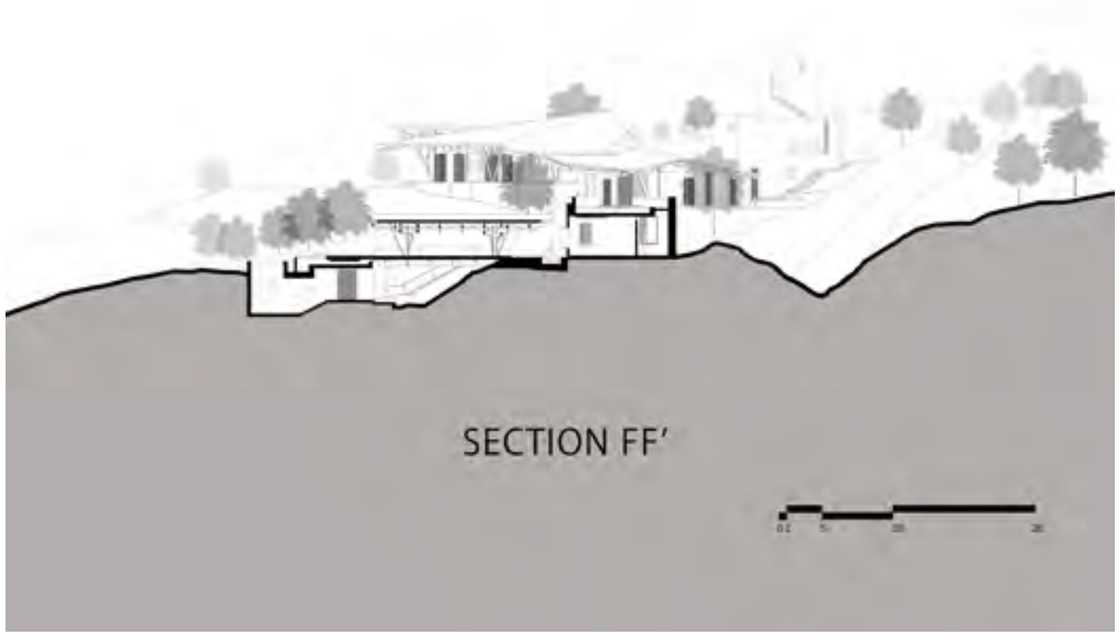
About Ar. Arjun Malik

Arjun completed his undergraduate studies at Rachana Sansad's Academy of Architecture, Mumbai in 2002. He then worked with his father Kamal Malik for two years, after which he went to New York and received his Master of Science in Advanced Architectural Design from Columbia University in New York.

Through his work, he has tried to develop an idiom that would reconcile the intellectual and intuitive aspects of architecture, that would provide a tangible link to the past without getting nostalgic and would be technologically progressive without being experientially stunted, and that would, ultimately, speak through the intangible science of perceptual phenomena.

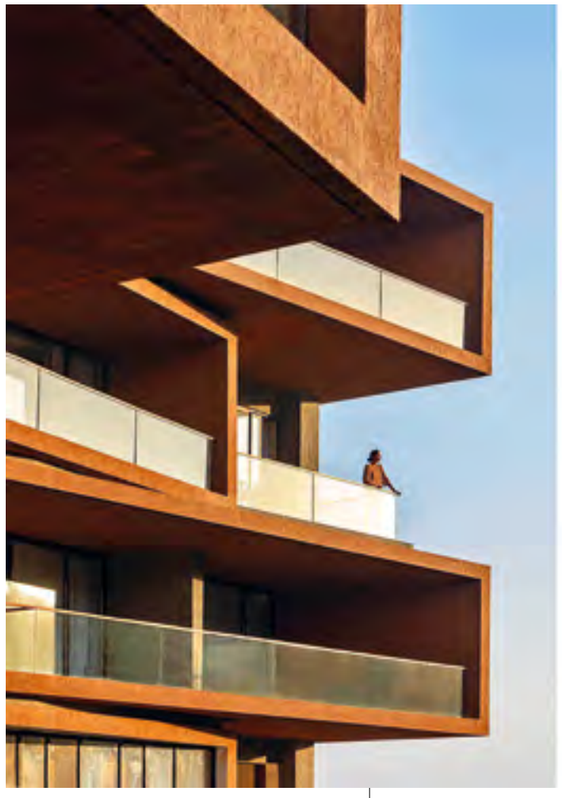
JOURNAL OF INDIAN INSTITUTE OF ARCHITECTS





FOCUS STATES ARCHITECTURE AWARDS **COMMENDATION AWARD**

AR. SANJAY PURI (MUMBAI)



ARIA HOTEL
NASHIK, MAHARASHTRA, INDIA

Cost ► INR 45 Lakh (Approx.)
Built-up Area ► 1,50,000sq.ft

The site for this hotel is gently contoured rising up 9M towards the south with the entry at the lowest level in the north. Situated in the wine growing region of India, the north faces a large river and a dam with hills beyond. The southern side rises up into hills in close proximity to the site. The clients requirements included a large banquet hall of 15000 sq ft in addition to 60 rooms and other facilities.

Since the banquet hall would have large gatherings its access is planned directly from the road frontage at the lowest level of the site. The public facilities including the hotel lobby, restaurant, bar, spa & business centre occupy a higher level 6 metres above the banquet hall entered directly from an ascending approach road.

The rooms at the higher level are oriented to face the river in the north or the immediate hills in the south with open circulation spaces & naturally ventilated & skylit courtyards. Each level of the hotel is integrated with the natural contours of the site, minimizing land cutting & landfill. No soil was taken out of the site or brought into the site while constructing, making the construction both economical and sustainable. Over fifty percent of the walls are built with natural black basalt stone available in close proximity of the site. All the circulation spaces are naturally lit & ventilated rendering the building energy efficient. Solar panels on the rooftop, over the banquet kitchen & parking areas generate fifty percent of the electrical energy required for the hotel. Rain water harvesting tanks, with water recycling & reuse further add to the sustainable methods adopted for the design of this hotel. All the rooms, restaurant, spa & banquets open into sheltered balconies & decks that provide outdoor usable spaces whilst minimizing the heat gain into the internal volumes.

At each floor the rooms form rectilinear cuboids that are angled differently creating balconies that frame the picturesque surroundings with 2 floor high suites at the topmost levels. Painted in terracotta color stucco, these frames are juxtaposed with the black basalt stone walls of the lower floors.

Aria Hotel is designed contextually, responding to the site contours, the views of the surroundings, the climate & the materials creating a web of experiences within its different volumes.

Material & Construction Details

► Each level of the hotel is integrated with the natural contours of the site, minimizing land cutting & landfill. No soil was taken out of the site or brought into the site while constructing, making the construction both economical and sustainable.

► PT construction for banquet to get almost 17M column free space & restaurant area too is planned in PT to avoid unnecessary columns to support the swimming pool.

► Large balconies twisting in design is created with almost 4M of cantilever.

► Single loaded corridors with courtyard assist cross ventilation & natural light. Courtyards are covered along with all non-accessible roof are covered with solar panels. S-W courtyard wall is covered with mangalore terracotta jali to avoid S-W rain to enter whilst allowing breeze & light to come in.

► Architects, MEP consultant, Structural consultant, PT design team & Site team working in sync to have an Integrated approach toward design and it's execution.

► Double course walls used externally as well as internally between rooms act as insulation & reduce sound transmission.

► Room levels are painted in terracotta colour stucco & are juxtaposed with the locally sourced black basalt stone walls on the lower floors.

► Landscape gabion compound walls are also made up of locally sourced black basalt rock.

► VRV units are used for air conditioning wherever necessary to reduce consumption.
► LED lights are used internally as well externally.
► Terracota jali is used to cover the S-W wall of the courtyard which not only facilitate natural light & ventilation also creates interesting patterns on different time of the day.

Special Feature

► Nashik receives high rainfall during monsoon months of June to September. Thus water is harvested in a tank as well as recharged pit to sustain through all other months. Self-sufficient with water catchment areas where in storm water drain system is incorporated and ground water recharge pits are introduced. The entire waste water is recycled. All waste is directed to a sewage treatment plant, recycled and used for flushing and gardening.
► Nashik's tropical location & high altitude combines to give a mild tropical climate. Summers are hot with temperature soaring almost upto 35'C. Solar panels are fixed on roof as well as on covered parking areas to take care of 50% of electrical load of the entire resort.
► Existing contours are undisturbed with minimal intervention with no additional soil is brought or removed from the site.
► 60% of the site is left green.
► Air conditioning is restricted to rooms, restaurants, banquet halls & pre function areas. In these areas too VRV units are fixed to reduce power consumption.
► All lobbies & corridors are naturally lit & ventilated with no additional mechanical ventilations.
In all indoor & outdoor areas LED lights are used to reduce power consumption.
► Entire resort barring the basement areas used for services & parking are naturally lit & ventilated.
► Deep recessed windows with double glazed unit help in reducing heat gain.
► The building design is low maintenance with stucco plaster and paint finish.
► Landscape is done with regional plants that require minimum water.
► All materials used internally too are low maintenance with tiled flooring, textured paint finished walls.

- Orientation and recessed windows contributes to 12.46% savings in the overall energy consumption.
- Natural ventilation contributed to 4% savings in the overall energy consumption.
- Daylight optimization contributed to 3.5% savings in the overall annual energy consumption.
- High performance VRV based system contributes to 1.6% savings.
- Solar power for meet 50% of the requirement. This contributes to 7.4% savings.

About Ar. Sanjay Puri

The firm Sanjay Puri Architects is listed in the top hundred architects worldwide by Archdaily and Architizer and in the top 136 design firms worldwide by New York. The firm tops the list of WA Community award winners across the world. With 160 international and over 100 national awards, the firm has won architectural projects in Spain, Montenegro, Mauritius, Abu Dhabi, Dubai, Montreal, Oman and Dallas in addition to projects in forty Indian cities. With a diverse portfolio of townships, schools, hotels, retail and office buildings, they continue their quest for creating innovative design solutions that are sustainable on a large scale. With a firm strength of seventy two, evolving design solutions that are contextual and creating spaces that revolutionize the way they are experienced form the essence of the firm's design philosophy.

The firm has won many awards from : World Architecture Festival's Best Housing Project of the Year, Amsterdam; World's Best Residential building in the LEAF Awards, London; Chicago Athenaeum Museum of Architecture & Design's International Architecture Awards; World Architecture Festival Awards; Society of American Registered Architects Awards (SARA), New York; Architizer A+ Awards, New York Hospitality Design Awards, New York.


LOWER GROUND FLOOR PLAN


UPPER GROUND FLOOR PLAN

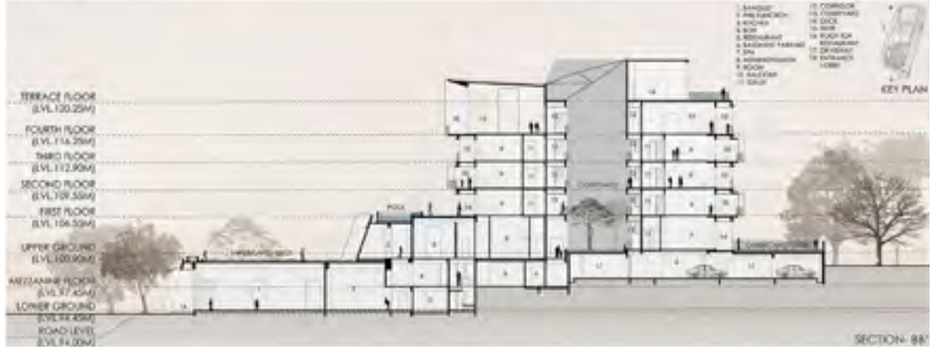

FIRST FLOOR PLAN


SECOND FLOOR PLAN


THIRD FLOOR PLAN


FOURTH FLOOR PLAN


TERRACE PLAN



FOCUS STATES ARCHITECTURE AWARDS **YOUNG ARCHITECT AWARD**

AR. ANUBHA JOSHI (PUNE)

BACKPACKERS' HOSTEL
PANCHGANI, INDIA

Cost ► INR 2.75 Crore
Built-up Area ► 660sqm+525sqm of Developed Terrace Area

The hostel for backpackers is situated near a hill station Panchgani, the strawberry capital of India in the Western Ghats of Maharashtra. Design has evolved in response to the need of backpackers for safe, comfortable and hygienic place to stay at scenic location. The guest profile, limited between 18 to 40 years of age, include the ones hitch hiking on a shoestring budget, the cyclists & bikers or the young working couples . Since its opening two years ago, this place has been re-visited by many, in different seasons for experiencing the sheer joy it offers through its design setting. With valley views and cascading outdoor spaces it remains a sought-after destination among millennial with average 90 percent occupancy.

Urban dis-connect is the purpose of this typology. Recognized as a social need, the design creates an environment amidst nature for young urban travellers seeking solitude, personal time with soulmates or to make new friends. Stories portrayed by the guests on the social media about their stay at this play convey sheer joy and happiness that they have experienced!

In the conventional sense of 'Social Responsibility' this place has drawn upon local skills and human resources for its making and continues to do so in operational phase by sourcing locally grown organic produce, training the rural youth and women to be part of the hospitality activities of this place. Architecture of this place has also encouraged local artists to integrate their art to narrate regional stories.

Materials of Construction Details:

The conscious design approach was aimed at having least impact on local ecology. The unstable site slope of 1:3 gradient was held together by a tree or two at places but largely had to be retained by narrow terraces, much like the paddy fields along hill slopes, to create usable spaces in a stepped manner by using concrete walls in a folded profile. The used Dry Storage Containers (40'x8'X9'6") were chosen as preferred material for this construction for its advantages. The long footprints of the containers were most suitable to be placed on the narrow terraces to be used as dormitory spaces. The structural properties of the shipping container were fully exploited to obtain maximum habitable spaces with minimum ground contact by precariously balancing another set of halved containers placed above, much like the Sherpa carries loads while negotiating the narrow traversing routes on the Himalayan slopes. Additional structural components were integrated to carry down the gravity and tension rods to hold back the cantilevered masses by using self-weight of the containers.

The design execution was split in two separate activities: off-site fabrication to modify containers into habitable objects and in-situ construction of retaining walls, toilets for dormitories and to lay networks for water supply, storm water and sewage. The logistics of moving containers from Pune to Panchgani and placing them precisely on the site was orchestrated based on pre-engineered drawings with precision by the team of consultants and contractors doing such a job for the first time! The habitable spaces are provided with mechanical,electrical and plumbing services with ease of operational maintenance and well integrated with the interior spaces designed to suit the guest aspirations. Most of the year guests prefer to enjoy the natural cross ventilation full of fresh air from the valley or simply being outdoors.

The spaces in between the containers, paved with rough kotah stone, are deliberately designed as landscaped open decks although the design brief from client had them listed as 'function spaces' and 'passages'. These 'unbuilt' spaces in fact define the 'built' and provide flexible areas for variety of functions, community gatherings, traversing through the 'built' and are an inseparable part of the design.

These outdoor living rooms complement the bed rooms in the containers!

Special Features:

Choice of materials and colours camouflage these new objects in the landscape, except one, the red reception lounge box, as the Butea Monosperma or the 'Flame-of-The-Forest', with a striking cantilever diving into the valley.The design ideas have evolved from simple observations from the nature. The container boxes are poised as if they are keeping an inquisitive vigil over the valley and their surroundings, not to miss any drama created by clouds with the sunlight or a flock of birds flying by or the breeze gushing through the grass. In fact, one can see a striking similarity the way a family of Meerkats huddles together while alertly keeping vigil on the action around them!

Principally, the Backpacker's Hostel is an inventive, rational bringing together of landscape and industrial language to create a joyful environment that resonates with travellers, and an innovative response to a difficult context.

Up-cycling of used shipping containers is the highlight of this newfound modern architectural idiom, a new GREEN, which suits the culture of its own typology. It is a replicable prototype yet rooted in its context.

About Ar. Anubha Joshi

Ar. Anubha Joshi completed her B.Arch. from VIT'S PVP College of Architecture, Pune in 2014 and Masters in Science and Urban Design from Columbia University, New York in 2016. Following her undergrad dissertation, Public Library as an Urban Insert, she collaborated with British Council Library's initiative Wisdom Tree 2015 towards public libraries in Pune. She joined her father's firm, Madhav Joshi & Associates, contributing towards its processes of creativity and contextual modernism and several award-winning projects.

The Backpacker's Hostel project expresses her forays into design and architectural articulation and detailing to deliver an architecture that has austere, rational roots yet is playful and creative in its expression.

PLAN AT ROAD LEVEL (SCALE 1:150)

SECTION 2-2' (SCALE 1:150)

FOREIGN COUNTRIES' ARCHITECTURE AWARDS (FCAA)

ARCHITECT OF THE YEAR AWARD

AR. MD. IQBAL HABIB, AR. MD. ISHTIAQUE ZAHIR, AR. SHAHNAZ AKHTER PARVEEN

ACADEMY FOR EKMATTRA
DAKHA, BANGLADESH

Built-up Area ► 2,900sq.m

The project is an academy for the 'EKMATTRA' foundation which provides a home for the destitute children of Dhaka city. It was founded with the vision of creating a place of hope with a sense of freedom and ambience to dream boundlessly.

The site is defined at Haluaghat, a remote landscape of northern district Mymensingh with lush green encircled by seasonal water channels at three sides in the context of a hilly background of Indian border. Built on a 3.4 acre land, the idea of the project was to create a place of learning, rest, and play. The built sheds are positioned to create a free-flowing space transiting from the court of learning to the court of play & leisure. The existing trees are embroidered with the built masses to blend into each other. The water retention ponds at the south and north are to safeguard the site from flush flooding besides acting as a pool of retained water in dry season. Like the common rural settings of built forms in Bangladesh, the northern courtyard or 'Uthan' at the beginning at north facilitate an 'administration block' at the east with health centre, multipurpose room and a kitchen which connects with pathways leading to the dining room and the two storied teachers' quarter at the south. The other 'academic block' at the west with vocational training facilities is parallel to the administration building creates the conglomeration space for daily parade and formal gathering. The northern transit by a shift of axis into the southern courtyard contained by two single story boys' dormitory blocks accommodating 80 boys & their adjacent toilet extensions. The two storied girl's dormitory block accommodating 64 girls at the north with its common toilet is segregated from this court by a water pond at its south to create a cooler ambience for the living space. The Academy accommodates a maximum of 144 children at a time. The accommodation for the teachers is at a transit towards the dormitories to keep the compound under surveillance. It creates a sense of safety and security without a physical barrier in place for segregation. The complex accommodates a stage for open-air performances with the amphitheater which during leisure time is used as a play area too.

Program

Administration Building	Amphitheatre
Academic Building	Rain Water Preservation
Staff Quarter	Agro Farm
Girl's Dormitory	Playgrounds Deck
Boy's Dormitory	Wire Mesh Boundary Wall

Local burnt bricks with exposed flush pointing technique are used as basic walls and floors, while locally available folded metal plate roof with metal framed windows are used. Doors created with colorful plywood panels framed on MS frames. The extended MS metal truss used to create a light roof structure with a buffer gap facilitating light hot air to blown away with the breezes, thus keeping the 'usable space' underneath in a comfortable temperature at all seasons. The overhang roof lines also ensure the required shades for the walls and protect them from rain as well. The roof waters are designed to be stored in a large rainwater harvesting tank to support with potable water at the dry seasons.

The project has a unique mode to explore the agriculture-based livelihood, Vernacular architecture and native landscape of the region, to get inspiration for knowledge and ideas to build up aspiration of life, bigger than its dreams. Thus, nature lies in its true sense at the core of its ambience. The objective of the project is to:

► Creating a building in resonance with the vernacular architecture of the region, such as incorporating natural cross ventilation by detaching the roof from the main brick structure.

► The building was design in a linear fragmented way to break up the massing creating small scale spaces of landscape traditionally called "UTHAN" for the children creating a village like rural fabric. And like all rural villages in the region the building blends with the surrounding landscape.

The project tries to address the human side of the project objective by:

► Bridging between the local context & culture with the destitute children of traumatic past.

► Bringing back into their life a sense of hope beholding the nature, light, water and breeze.

► Training them with skill, but not limiting in scope to strive, ignite with knowledge of nature as to empowering them to dream.

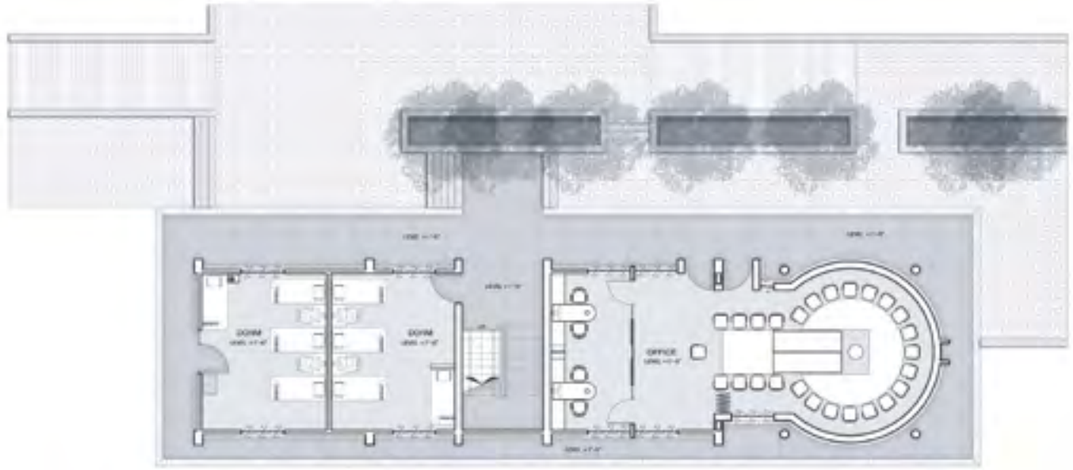
The Academy, aimed to fulfill these with its space, setting, efforts & ambience. The development process subsequently employed local builders, embraced local community and vis a vis contributed to local economy by acquiring most of the construction materials locally.

About Vitti Sthapati Brindo Ltd.

Ar. Md. Iqbal Habib, the Architect Director, is a graduate from the Bangladesh University of Engineering & Technology (BUET), 1991.

Ar. Md. Ishtiaque Zahir, the Managing Director, is a graduate from the Bangladesh University of Engineering & Technology (BUET), 1991 and has a M.Sc. in Architecture (Computing & design) from the University of East London, UK in 1998.

Ar. Shahnaz Akhter Parveen is the Design Architect for the project.



EKMATTRA DBBL ACADEMY
TEACHERS' DORMITORY (PLAN)

LEGEND
01. ENTRY GATE
02. AMPHI THEATRE
03. ACADEMIC BUILDING
04. ADMINISTRATION BUILDING
05. TEACHERS' DORMITORY
06. GIRLS' DORMITORY
07. GHAT
09. RAIN WATER HARVESTING TANK
10. POND
11. LIVE STOCK SHADE
12. CANEL
13. ROAD

EKMATTRA DBBL ACADEMY
MASTER PLAN

FOREIGN COUNTRIES' ARCHITECTURE AWARDS (FCAA)

COMMENDATION AWARD

AR. LUTFULLAHIL MAJID (DHAKA)

A KHANKA FOR A FAKIR
DAKHA, BANGLADESH

Cost ► USD 40,000

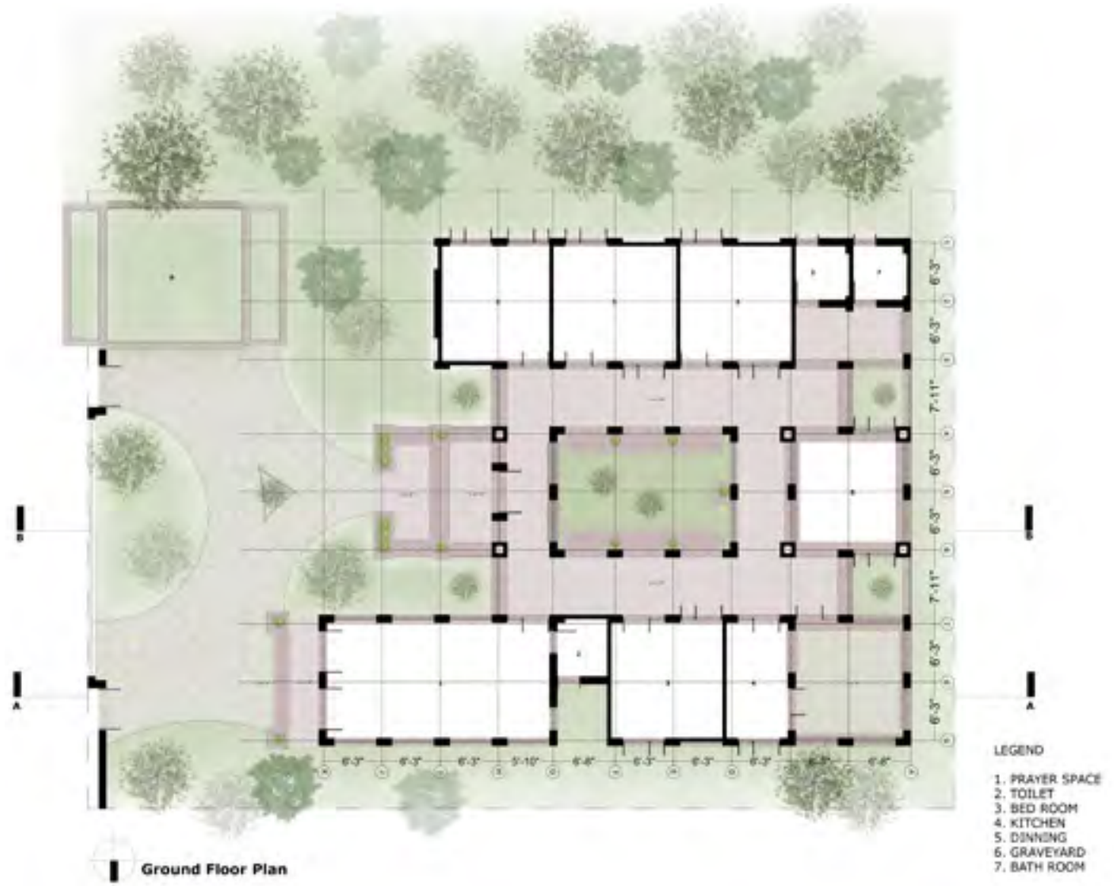
There is a story behind this project. In a *Mazar*, client of this project met a *Fakir* (a muslim devotee and master, most of the time who stay in *Mazar*). *Mazar* is a holy place where a *Peer* (Islamic religious master and spiritual guide) was buried. That *Fakir* didn't have any home of his own. The client became his follower and decided to make a *Khanka* with home for that *Fakir*. *Khanka* is a place where a islamic religious master prays and meets his followers. In a *Khanka* an advanced grave is also made for that master. The land which was purchased is at road level and the road is in east side. North and West side is low paddy fields (In rainy season becomes shallow water body). It was an attempt to create a low cost traditional "*Bangla Ghar*" architecture in a rural context with pitch roof and courtyard with crafted bricks which will contain two types of courtyard. Road side outer courtyard for public and inner courtyard in home for family members(who are very conservative about privacy). According to functions from the road side the full facade was divided in three conceptual axises that is *Live, Pray and Leave*. Live for home entry, Pray for Prayer space and Leave for the grave. With some brick details and craft ed wood with islamic patterns and calligraphy we tried to give this compound a little Islamic architecture fla vour. The total construction materials and labours were arranged locally.

Materials of Construction
► Foundation: Local Bangla Brick Foundation.
► Structure: 10" gas burn pointed brick walls and metal frame for pitch roof.
► Lintel: Metal (MS) L angle used for lintel.
► Roof: For all the rooms and prayer space pitch roof was made with metal frame and industrial sheet. But the corridor roof around the inner courtyard was made with reinforced brick.
► Floor Finish: Brick flooring for circualtion areas and NCF for all rooms and prayer space.
► Door Window: Made with metal frame and wood.
► Furniture: Made with metal frame and mehogani wood.

Special Features
► Brick crafted arch with metal.
► Crafted brick jali walls.
► On site casted soft pave.
► Reinforced brick roof.
► Sandwich ceiling panel made of metal frame, coconut fibre and Ferro cement.

About Ar. Lutfullahil Majid
Principal Architect, Partner at Archeground Ltd.
Ar. Lutfullahil Majid graduated from the Bangladesh University of Engineering & Technology (BUET) in 2006. He has been the Principal Architect and Partner in Archeground Ltd. from February 2006. When the architectural scenario in a rapidly developing country like Bangladesh was largely and adversely dominated by western modernism, he was continually in search of a language, through his works, which would complement the context, climate and the architectural and cultural heritage of his country. All his projects aim towards developing an architectural norm that truly represents the socio-cultural attributes and contextual demands respecting the origin.

He has won several awards : Berger Young Architect Award, 2015 & 2017; JK AYA Young Architect Award, 2017 and IAB award, 2018. He has also been shortlisted in Unity Complex Design Competition, 2012; shortlisted for AAA, 2017.



Ground Floor Plan

SECTION BB

FOREIGN COUNTRIES' ARCHITECTURE AWARDS (FCAA)

YOUNG ARCHITECT AWARD

AR. RASHED HASSAN CHOWDHURY (DHAKA)

BLUES H. OFFICE
DAKHA, BANGLADESH

The place where "Blues H. Office" is standing today, was simply occupied by a warehouse before. When "Blues" decided to shift their office right beside there warehouse, the primary plan was simple. They wanted to build a normal work space where they can accommodate 30 to 40 workstation. After building the foundation, they gave it a second thought and decided to do something different with it. "Blues" management people approached the Architect to do something out of the box with it.

The whole concept was to build a creative & playful office with multiple playful spaces which can be used for meeting, conference, meet up etc. Blues employees' working hour is not stereotypically nine to five, they have long working hours. Keeping this in mind "Blues H. Office" has been designed.

Materials of Construction Details:

► Pre-fabricated metal exoskeleton as main frame.
► Tri-layered polycarbonate sheets were used to provide thermal comfort and reduce cooling load.
► Double glazed glass facade to reduce heat gain and indoor-outdoor relationship.
► Floor slab with poly concrete deck panels.
► Pre-fabricated wooden panels as floor finish materials.
► RCC and brick was used only in service blocks which were placed to reinforce the metal exoskeleton

Salient Features:

To create an open environment for office and activity, service was designed in a compact manner. This organization helped to shape up lofty space for work and group task as well as efficient service management, cost reduction and ease of maintenance.

For reduction of cost and maintaining original footprint the existing concrete foundation was utilized by fabricating a metal structure over it .VRF air conditioning ,centralized service block has been placed inside the building.

The high ceiling and large transparent glass façade allows natural light to the core of the building that undergoes constant changes as light reflections alter over the course of the day. At night, the Blues Communication Limited office is lit by white Led-lights, resembling a giant luminaire, while making the building shimmer in dialogue with the surrounding the vibrant neighborhood. Providing all ancillary facilities with seven parking space, Vehicular and pedestrian access along with 2 vertical and other horizontal circulation. Landscape has ample green and plants to create a better workplace.

About Ar. Rashed H. Chowdhury

Ar. Rashed H. Chowdhury is the Principal Architect of Dehsar Works and the Founding Partner of Loudworks and Workshop Ltd. He graduated from Bangladesh University of Engineering and Technology (BUET) in 2009.

After a brief period of working as a research architect for the Green Architecture Cell at BUET, he joined the University of Asia Pacific as a lecturer. In 2014, he established a design studio with a focus on Architecture, Urban Design, Product Design and Communication Design. His practice is currently engaged in projects of various scales and typologies and has won a few major architectural awards and competitions.

Ground Floor Plan

First Floor Plan

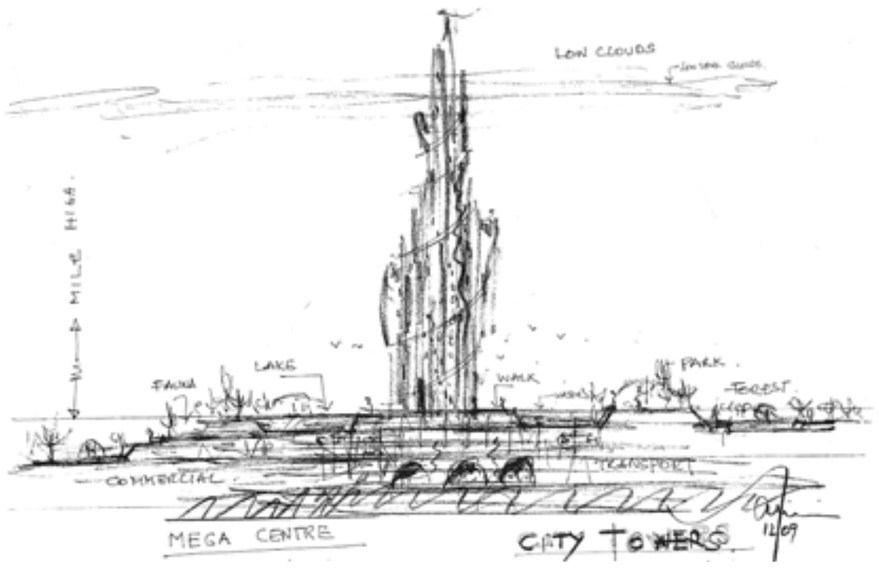
Second Floor Plan

West Elevation

Section X1

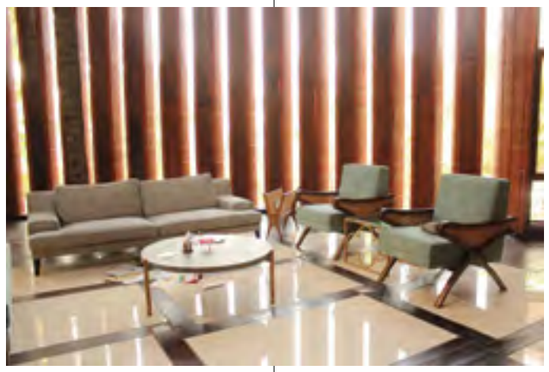
Section X2

DIALOGUE
INTERVIEW WITH THE MASTER ARCHITECT KRISHNA RAO JAISIM



Master Architect and founder of the Bangalore-based firm Jaisim-Fountainhead, Krishna Rao Jaisim (KRJ), speaks from his heart about his six-decade journey in architecture with Dr. Rama R Subrahmanian (RS). Prof. Jaisim is a national icon who is equally invested in the profession and in academics.

by Dr. Rama R. Subrahmanian



RS

We are keen to hear you describe the evolution and phases of your practice.

KRJ

It is indeed a privilege to be invited to talk about my journey in architecture. I thank Prof. Rama Subrahmanian, Ar. Gita Balakrishnan and all others who took the initiative for the discussion and the investigation into this imaginative and great profession of architecture.

At my firm, Fountainhead, we have a concept: 'form follows space'. The fifty odd years of my journey in architecture have been a sequence of a well-knitted labyrinth of interpretations of spaces that have in many ways influenced my architecture. Each of the spectrums had stories that came to life in the built form. The client was and is like the child listening to the story and impatient as to when and why it will end. The architect in me has no answers. Every time I walk and review the design, I mentally pace all the dimensions hoping that this one will be one more that never was and will be timeless.

When you ask what is the evolution of Jaisim Fountainhead, it's difficult to explain in a few words, but I shall explain. An effort. Sometime back in the sixties, I did not know that my grandfather was an architect. Or that he was with the Maharaja of Mysore.

And that all I had was a great inspiration towards what I would call as sketching and other factors, that related to abstractness. When I was finally offered or asked to join the School of Architecture in Madras, I initially joined without knowing everything about it. But within a matter of time, I discovered a lot. That it's one of the most imaginative professions and it was not like any other profession, defined and designed and dictated by definitive lines of thought.

Here, there was discipline without the discipline brought in by you. Here, there was design, without the design being absorbed by you. Here was something very fascinating.

It all started with a Triumph Tiger Cub, the motor cycle that made me decide where I would pursue my higher education. In my second year of B.Arch., Professor Sheila Tribe accidentally discovered in me the potential to think differently. She gave me a smile stating, "Do not give up". Around the same time Howard Roark appeared with gifts of objectivism and the Fountainhead. Next, Professor K.N. Iyengar opened my eyes to the orders of architecture and the sheer simple magnificence of Mies van der Rohe. The exploration continued in the third year with a chance meeting with Buckminster Fuller that thrilled me with the understanding and importance of structures. He thrilled me with the magic of the geodesic dome and the tetrahedron. I soared. And again, a similar august event happened at a sitting with Otto Koenigsberger. Wow! How content matters with context. Tropical architecture and its in-depth study made a world of difference. I never lost any one of them for the other. Professor Pithavadian challenged me, Sri Krishna Chitale strengthened me and a discipline grew. Architecture was never the same again.

I enjoyed my first few years of learning; it was called 'de-learning'. That's what I would call it. It was unlike any other profession…it was, and it is even today. Then when I got out of the School of Architecture– that's a long story.

I worked for the luminaries of those days: Sri Krishna Chitale at Chitale and Sons. I requested him for a post. Twelve years of working under the heavy discipline of architecture, I travelled through quite a few lines of thought. Suddenly one day, after a discussion with him, he asked, "What are you going to do?"

And I started on my own, but I had great fun. In 1970, I met my wife in Madras. She was an inspiring force.

I strongly believe that my architecture will have that sense of sensuality that does not belong to any conventional styles or stories and yet belong to the ethos and culture that will inhabit these spaces. It is difficult and has been a difficult journey. One loses many clients because one refuses to conform. But every step has been earned and made a significant path down new avenues.

Today, I have consciously slowed down. The mind desires but the body smiles. The young spirits in the schools of architecture now are my challenges: to infuse and make them stride and discover. I admire any young one who in his or her innocence makes me think. They are my fountains of creativity.

RS

Can you tell us about your goals in design and the process? What are the objectives?

KRJ

It is not just about function and form, it's about human experiences and human life. How do we express that in the built form…Since human beings have to live in the built environment made of the senses, evaluating the elements and then creating a world where their sense of happiness, the joy, their history, their aspirations to the future are held. But this design process is expressed by the architect on behalf of the other person: that is where the fascinating adventure of architecture starts. The process is exploring beyond oneself, and then expressing oneself through those elements, in the context of that time and that space.

RS

What would you say are the three of the most important elements of good design and good architecture?

KRJ

It is a space in the time and the life and the experiences that one goes through in this space and time. How you express it, in what context, and with what content, that makes architecture what it is. And that's what happens to expressions through time, space and exploration.

RS

Can you speak about your fascination for Buckminster Fuller?

KRJ

I am glad that there is a specific question about Buckminster Fuller. I was sent to the airport to keep company of an architect whose flight had been delayed. Initially, I was not aware of who I was to meet and I was delighted when I came to know it was Buckminster Fuller. He talked to me and that is how the whole tetrahedron inspiration walked into my head and has never been forgotten. We have done a cube, with large structural spans and gone on to understand and manipulate the geometry of a tetrahedron. It's a question of understanding of material and the expression of the fascinating model of the tetrahedron has led to exciting explorations.

RS

What makes a good designer or architect? What is inspiration?

KRJ

When you see a site, its neighbourhood, the client, the person, the people working—right from the little labourer who carries the mud pots for the mud on the site, or mixing the cement, or the little kid that runs around, or the birds and the things that fly, the sky, the elements of nature, sun and stars of the night—these are the sources of inspiration. Inspiration can come from anywhere: a butterfly flying across, a bird song, an animal, or your companion asking what it is that you are looking at or what it is that that person is looking at. The thinking mind looks at abstractions which become reality while creating the concepts of design. It becomes structure, form and all the elements that make great architecture.

RS

What is the social relevance of architects in today's market-driven world?

KRJ

I keep repeating to every student of mine that comes across, "It is the only profession that is not yours." Art and artists need nobody; he just needs the tools to paint, to create a sculpture, or the artefact. The engineer works on other people's technology and expresses it through the very defined and disciplined process of engineering and technology which cover anything from acoustics to earth to mud or to stone. We can grow from the ground towards the heavens, but when it comes to architecture, it's an abstraction, but an abstraction of tremendous detail which defines the world of human beings and the life they live, how they live and how they can express that life. This is the adventure any young architect should take up, and take it beyond the time he/she is in, and express the present in the future, and the future in the present. By understanding the history, the culture and all the ethos that make the person, and what he wants to express. Architecture is a fascinating profession and very difficult to understand.

RS

A few words on the question of architectural education, and the present challenges of the course.

KRJ

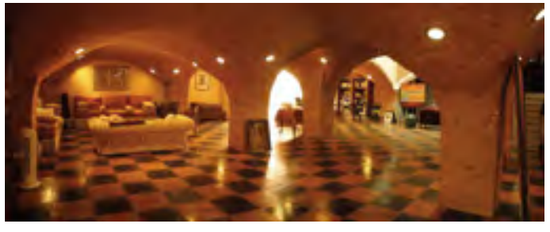
Even early on people understood this, in a very abstract way, that this is a complicated profession and very difficult to express. So instead of four years, it was made a five years' course. But then they started putting in definitions which were not really necessary. In those days, with the elements that were available, with the consciousness that was available they could only express it that way. It was only those who took basic schooling who could take up the architecture course. To me, architectural education is to learn the details or what we call the fundamentals. You need to learn the tools, which you can learn only in a school of architecture. The tools of expression are very different, they vary from school to school. But then, they finally have to express the space, express a built format. Now after three years of what I would call basic learning, then you give the person a basic degree. And then the person explores.

One can learn by going outside and learning from various areas. I have driven buses. I have driven crushers. Various aspects I have learnt during my life to understand why people do what they do. And then slowly it creeps in; I use the word 'creep' because it slowly influences you to express the design process, which is actually very complex, starts appearing simple. A little squirrel jumping, some element thing looking at it, something happens there, why does he look that way?

The students must display their understanding of architecture through their final dissertation or thesis. The expression of this is very, very important– that is the challenge of education in the next two years. I always say it must be

about something abstract, something that has not been done before. Yes, they can learn from the past, but they must not express through the past. They must do something more; they can define steel and say this material will take more load than what it is taking now. Make the fundamentals very clear and then explore the elements and dimensions that architecture can become. And you can say that in the future, this is what I will do. That is architecture; otherwise, it is just simple designing—something built here or something built there, or making good perspectives or good colour drawings—that is not architecture. The final architecture is expressed in the built space. And how it is expressed and what human functions can happen, changes can happen, the form it takes—that is real architecture.

I would always say after the five years, after the dissertation, the young aspiring architect should get into the field of the profession for a few more years in any area he or she desires, anything other than architecture too. And then if he wants to come back, learn more theory, if he still wants to understand the fundamentals, go and do your Masters. But go out, learn for yourself, don't be influenced by others, explore, jump over the skies, and then come back. And then say now I want to be in the real world and see how I can express it. It's not graduation or acquiring a degree, it's the understanding of human behavioural patterns, that's what makes architecture.



Dr. Rama R. Subrahmanian, with long experience in both, the profession and in education, has conducted numerous seminars, workshops, Continuing Education Programs. She is an active researcher working with NGOs and government agencies and a member of the National Scientific Committee of ICOMOS Kerala and Director of Centre of Heritage Initiatives, DSI. She is a subject expert, syllabus committee member and an approved research supervisor for doctoral programs. She was conferred the Best Teacher Award by the Practicing Architects Association, Bangalore in September 2009. She has been the chief driver of Dayananda Sagar College of Architecture.

WORKING WITH MOVING PARTS

2020 VISION, RESILIENCE & RESPONSE IN ARCHITECTURAL PRACTICE

AR. TAKBIR FATIMA

It was the end of the work day in late September. Our team was still remote after the lockdown re-opened, but I worked in the studio from time to time. I was sitting in my chair with my feet up on the desk, enjoying the rain pouring outside my window. After a while, the sound of the rain began to seem oddly louder, reverberating and more urgent. I happened to glance down and to my shock my chair was already submerged in rainwater that was rapidly and violently gushing into the office. Looking back, for me, this would be the defining moment of the year 2020. Hyderabad was under water for weeks, for the first time in over a hundred years. Our studio remained waterlogged for over ten days, something no one saw coming, or could have avoided.

"The best-laid plans of mice and men often go awry."
ROBERT BURNS

The events of 2020 were something no contingency plan could have taken into account. It is from a position of recognized privilege that I write this. We were able to see the flood as an opportunity to throw out the old and make space for the new. To start afresh, tabula rasa, is a privilege not affordable by all. The effects of any disaster are manifold and multi-layered. The whole world was directly impacted by the pandemic and the lockdown. Our city was additionally affected by the flood. Though our own damages stop there, there are many sections of society that are continually affected by additional misfortunes. When we began to look outside ourselves, we saw the larger-scale problems faced by the disadvantaged. Pandemic or no pandemic, hundreds of people die in our country on a daily basis due to hunger, which is the real virus and without a cure. During the lockdown, it was migrant workers, construction workers and daily-wage earners in the informal sector who were exponentially impacted, finding themselves without sources of income or homes overnight.

As the lockdown was announced, just like everyone else, we had to work exclusively online. We have long questioned the role of an architect. In actuality, it is not as limiting as defined by educational institutions and the architectural community itself. An academician, a researcher, a theoretician, a computational designer, an environmental planner, a writer or podcaster, a furniture or graphic designer from an architecture background is as much an architect as an independent practitioner with built architectural projects. However, the spotlight is skewed in favour of practitioners and 'starchitects'. In order to open up discourse around the role of an architect and to introduce students and young architects to the various possibilities in architecture, we brought together architects from different cities around the world, who have chosen vastly different career paths. This formed a virtual lecture series called 'The Road Less Travelled'. It was attended by students of architecture and budding professionals from all over the world. At the same time, we questioned ourselves, about the role of an architect in times of crisis. Again, there are many roles. The one we took on was to channelize funds from this lecture series toward relief efforts by volunteer organizations for migrant and daily-wage workers, a small contribution to help reinforce the backbone of the construction industry. We called this movement #StarvetheHungerVirus.

I believe good architecture is resilient and good architects are resilient. The architect of today must adapt and respond quickly to the rapidly changing demands of the project, of practice, and of the profession. The role of an architect is not static, but ever-evolving: this was a lesson learned while working on our first large-scale built project, a charity school for children from disadvantaged backgrounds inside the Golconda Fort in Hyderabad. It was a project riddled with challenges that taught us to think fast in response to curve balls that came at us from every direction. The context was a low-rise, high-density settlement within the walls of the 800-year-old fort, a heritage zone. The fort is situated on top of a hill covered with sheet rock dating to 250 million years ago. This formed a cliff that cut through the site, dividing it into two different levels with a 20 feet drop in between. With this tight context and a limited budget, we had our work cut out for us. After outlining our principles which were uncompromised— protecting existing trees and rocks, preserving open space, low energy, and natural ventilation—everything else was dictated by the demands of the site, the built form molding itself to the unpredictable terrain and profiles of the rock uncovered at every stage during excavation. The process was an adaptive, responsive and a participatory one in which the teachers, students and execution team played active roles. Many of the design decisions were ad hoc and in situ, like sketching directly on the rock to convey revisions or changes. We involved the carpenter in the design of the library while I was abroad, defining parameters and guidelines, then coordinating the fabrication process over WhatsApp. The school has now taken on a significance in the neighbourhood beyond its intended role, acting as a makeshift clinic for vaccination and an awareness centre for environmental consciousness of the community at large, something we could not have predicted and did not plan for. Sometimes it is better not to plan for everything, and not to design everything, leaving room for interpretation and user-defined spaces in the future life of the building, allowing it to evolve over time like a living organism. The role of the architect in this case becomes more high-level, and the architect can relinquish control over the design process. The results of this bottom-up approach are impossible to predict but often more rewarding than a controlled, top-down process.

I have always aimed to create opportunities that I longed for when I was a student and recent graduate. One of the experiences I found lacking as an undergrad student of architecture and working in small studios was the exposure to the construction site. Earlier in 2020, we began an initiative called BuildAware– a construction partner to our interdisciplinary design and experimental architecture studio, DesignAware– that would allow us better control over the execution of our designs and their quality, delivering built spaces almost as a product rather than a service. (Who's crazy enough to start a new venture in a pandemic? Well, we are!) Under this initiative, we started a long-term educational program called '_studio to site_' that takes students and young architects, designers and engineers to our live sites for hands-on learning and engagement throughout the construction process, experiencing it from conception to realization. It also gives architects the confidence to exercise their authority on site, answering the question about the role of an architect on the construction site. When construction activity was halted temporarily during the lockdown, we moved this program online, where participants learned about project management, site safety and stages of construction. What is unique and unprecedented about the situation we are in now is that the whole world is going through a shared experience together: herein lies an opportunity. As the world began to work exclusively online and remotely, geography ceased to be a determining factor in selecting what projects to take up

and whom to work with. We have regularly worked remotely for well over a decade with our current team spread out over three continents. This opened up opportunities for collaboration with people from the other side of the planet and to work with clients as well as colleagues globally.

During the lockdown and afterwards, we visited sites in India and abroad remotely via video calls, designed a restaurant in London, worked on various projects for the Government of Telangana (who were actively taking up work that benefited from the absence of traffic on the roads), attended design juries internationally, taught workshops in partnership with colleges in China and USA, as well as doing a workshop series that saw participation from all over the world through the year. We were able to collaborate with various international organizations, including the London Festival of Architecture, Turenscape Academy, the Boston Architectural College, Facebook, and the European Cultural Commission, to name a few. We also initiated an experimental remote internship, taking in interns from far-flung locations. As such, 2020 was spent working round-the-clock between timezones. Demonstrating that it is possible to work remotely, the floodgates of collaboration have been opened, and they will most likely remain so.

Architects must be proactive instead of reactive, able and willing to take aim at moving targets. It is important not to view working remotely as an imposition or inconvenience, rather as a means of generating opportunities that become possible through remote work. For example, through online juries, we can invite international guest critics to the remotest of locations, as we recently did during a Fractals Workshop at the Kerala State Institute of Design. I would prefer never to go back to the old system of in-person juries at all, when it is now possible for students to gain access to international expertise and exposure. A few of our ongoing experiments are only made possible through remote collaboration.

Architecture is not just about solving existing problems but also imagining new worlds and scenarios that do not yet exist. Video games allowed us to build utopian worlds that were free of the problems of the real world, a means of escape from reality. Virtual reality spaces that we can design ourselves are extended reality and can create online communities when social interaction in the real world has been curtailed, and going a step further, bring together people from across the world in one space. VR also frees us from the constraints of the real world: gravity, scale, boundaries.

We created one such space as a part of the Fractals Workshop in partnership with the Boston Architectural College. Following an online generative design workshop, the computational models created by the students have been assembled in a virtual exhibition hosted on Mozilla Hubs. As further versions of the workshop series produce more design iterations, the exhibition will be augmented and continue to grow. The perpetual exhibition is designed to be self-paced and investigated by anyone, solo or socially. It is a developing space that we intend to grow and continuing sharing together.

Another project in the works is a remote-build concept in collaboration with Turenscape Academy, China. This workshop combines the ideas of remote design and remote build: an online workshop whose results can be manifested as large-scale installations on site at the Turenscape Academy, but without visiting the site itself. Participants anywhere in the world can remotely control the fabrication process through digitally-controlled prototyping equipment and augmented reality tools that allow for control of the assembly process of student-designed, reconfigurable tectonic construction systems. There is no value in new tools and systems if they are not applied to ideas and processes that rely entirely on the innovation made possible by these tools and systems.

I strongly believe that only when you become comfortable with uncertainty can you innovate and evolve. Just as in business, when a particular direction ceases to produce desired results, we must pivot. We are getting used to working with moving parts, the involvement of multiple independent, discrete parameters, shifting goal posts, and no guidebook.

"Be like water making its way through cracks. Do not be assertive, but adjust to the object, and you shall find a way around or through it. If nothing within you stays rigid, outward things will disclose themselves. Now, water can flow or it can crash. Be water, my friend."

BRUCE LEE

Opening Page Hilltop School situates itself in the context of the Golconda Fort

Left Page The Hilltop School site before construction

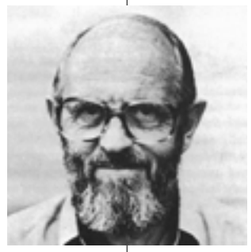
Ar. Takbir Fatima is an architect, educator and entrepreneur. She is the Director of the experimental design and architecture studio, DesignAware. Takbir created the Fractals Workshop and BuildAware. She is a Global Teaching Artist with Facebook Open Arts and a Workshop Co-director at the Boston Architectural College. Takbir has an M.Arch. from the AA School of Architecture, London. She was named Telangana Young Architect by the IIA and Emerging Architect of the Year by NDTV Design & Architecture Awards 2016. Takbir is a TEDx speaker, and has presented her work internationally. More about her work can be seen at TakbirFatima.com and DesignAware.org or on social media @designaware.

This Page (Clockwise from Left) Virtual tour of Hilltop School as part of the Dezeen Virtual Design Festival 2020. DesignAware was the only firm from India to participate in the VDF; Students learning on site as a part of studio to site from Abeer Fatima, Lead Interior Designer of DesignAware; Online Fractals Workshop attended by participants from all over the world.

BAKER : BEYOND BUILDINGS

It has never been as good as now for Indian architects, at least from a global perspective. More than ever in recent history, Indian architects and their designs are visible in the international awards, merit lists, publications, seminar circuits and internet media. As a post-colonial Third World country, the recognition we chased, the identity we sought and the fame we desired are definitely emerging. Architects are making India proud.

by Prof. Sathya Prakash Varanashi



But should we pride ourselves for the above without questioning it? The architecture of India is going international, but how much of India do we have in the Indian architecture? What is the ground reality– beyond publicity, visibility, websites and social media?

Yes, recently there have been many meaningful architects and architecture, but most of our design success appears to emerge from people who have either studied in the West or are influenced by the architecture of the West. Along with international exposure and recognition, our architecture is also gradually leaning towards sensory provocations, lavish opulence, multiple manufactured materials, fashionable gimmicks, and lack of design logic or contextual fit or sustainability.

Introducing Laurie Baker

In total contrast, Laurie Baker came to India from the West that influences us and in turn, influenced India to step out of the mainstream to design for India and in India. With no desire to chase prestigious projects and awards, he designed many thousands of houses for people from all social strata, mainly the lower and middle class, besides a large number of non-residential projects. This staggering number of projects started and were built after he turned fifty years old!

Today, most Indian architects have forgotten Laurie Baker, but he is alive in the Laurie Baker Centre, Trivandrum, promoting research and outreach, and also at the Centre of Science and Technology for Rural Development (COSTFORD) offices which build thousands of homes for the lower- and middle-income families. Even during his lifetime, he was not among the celebrated Indian masters, but was categorised as the architect for low cost, though he is beyond that one epitaph. Most of his architecture was small in scale, which made him realise, in his own words, “Small is not only beautiful but is often essential and even more important than large.”

Why write and read about Baker today? Because he was not merely a consultant, but conceptualised a vision; and because what he preached and practised may give us a saner direction despite the maddening rat-race of today. Because there are many qualities in him, beyond him being an architect, which are worth learning from. Because Laurie Baker was, and remains a phenomenon.

For the rich, he advocated cost effectiveness; for the poor he gave quality of living; for local traditions he gave innovations; for natural materials he gave new aesthetics and for the climate in crisis he gave eco-friendly ideas.

On comparison, we find less information about Baker than his more celebrated peer professionals– one film titled ‘Uncommon Sense’ by Vineet Radhakrishnan, a few books on him, a few handbooks written by Baker himself and internet entries in small numbers. Yet, decades after he stopped designing, few architects continue to design the way he did; and some may vouch how he continues to inspire them to explore alternatives, to question the mainstream and to go beyond the predictable. For a British-born architect working in India, Laurie Baker went beyond the predictable.

Birmingham to Baker Architecture:

The life journey of Laurie Baker is an unenviable one– one which taught him resilience, observation, patience, listening to people and above all being contextual, both physically and philosophically. Imagine cycling around Europe at the age of 17 which enriched him, when he graduated in architecture from Birmingham in 1937. Imagine being sent to China, Japan and Burma during the Second World War, and

meeting Gandhi briefly on his way back home, which gave a new mission to his life. Imagine returning to India in 1945, when he was an Associate of Royal Institute of British Architects (ARIBA), only to alter or build the most unglamorous leprosy cure centres across India, which no trained architect would have taken up. Of course, that led to meeting his future wife, Dr. Elizabeth Jacob, who was also part of the same organisation. They were married during 1948.

Baker observed the local climate, context, construction systems, costing of buildings and as a result of all these, understood the crafting of architecture. He could learn how people build with no knowledge of architecture as a profession. Reflecting on his sixteen years of work around Pithoragarh, Baker reminisces, "It was my life and experiences at Pithoragarh that taught me appropriate and intermediate technology." Around 1963, the couple moved to Vagamon, Kerala, continuing with both designing and with giving medical care. Destiny brought them to Trivandrum in around 1968, to stay there forever and live a full life from March 2, 1917 to April 1, 2007. In these ninety years, Baker explored the social, sustainable, organic, natural, vernacular, innovative, indigenous to name a few, all rolled into one. And 'Baker Architecture' was born, not found in the glorified monuments, nor in the high theory of design or studios of practising architects.

Previous Page Mitraniketan Hospital, Vagamon

Bottom Residence of Mr. George Rajappan, Trivandrum

Learning Resilience

Baker at Pithoragarh was like a fish out of water. He recollects, "The buildings I was sent to inspect, their construction techniques and materials used, were nothing like the buildings I had been taught about and designed in my school of architecture. I was expected to deal with mud walls and huge cracks. People seem to think that even cow dung was an important building material."

"I was increasingly fascinated by the skills of the ordinary, poor village people working with the most unpromising and crude materials, with no recognisable tools to make useful everyday buildings and articles."

Though Baker was schooled in the UK, he was 'deschooled' in India. Being able to observe, adjust, recollect, recover, accommodate, and hence, designing with and for people, was the best exposure Baker could have expected, as his 'feelings about being an architect', later listed under 20 items, was unfolding.

Baker as a Professional

Architecturally, Baker was uncompromising. He advised everyone to study the soil, topography, water, climate and neighbours, and to look for potential services like water, access, drainage, power and fuel. He wanted us to think: if these and others are not available, what would we do? Most importantly, we should obtain accurate details of the site, trees, rocks, well, wind and rain directions. Though building codes may not be mandatory, to study them for their advisory tips. Baker believed it was important to keep our information and knowledge updated. Though he sought newer ways of doing things, he asked all to make sure that the latest fashions were better than the established ways, before changing anything.

Right (T–B) Residence of Mr. George Rajappan, Trivandrum; Mitraniketan Hospital, Vagamon

Baker as a Sociologist:

His stress on not robbing national resources and not using them unnecessarily echoes with the idea of equity that we discuss in sustainability today. His essays 'Architecture and the People', 'Roofs for Roofless Millions' and many such others express his deep empathy with the underprivileged. In the same breath, he says that every building should be unique. No two people or families are alike, so why should their houses all be same? Such conviction can come only from a deep understanding of socio-cultural aspects, community beliefs, lifestyles and family aspirations.

Baker: The Ethical Architect

Baker insisted on taking up projects which had reasonable briefs and those that he was capable of designing and executing. For him, it was important to be honest and truthful not only in design, but also in material usage, construction, costs and importantly, about one's own mistakes. This connected to his principle of discouraging extravagance and snobbery and not taking on a job.

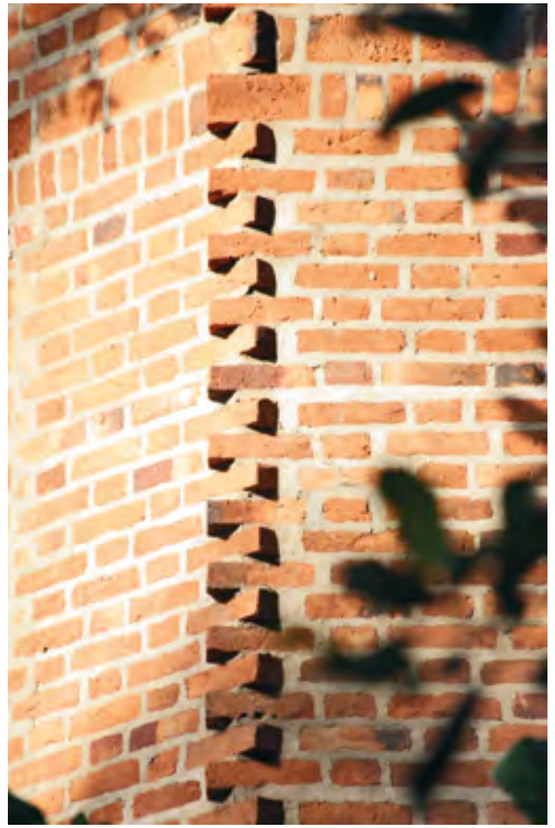
Just like the practitioners of his wife's profession, architects too need to cater to all segments of society and not only for the rich, powerful and the influential. This would mean not only trying to control construction costs, but also to keep the office overheads low so one may charge reasonably or lower consultancy fee. Needless to say, Baker never earned from the backdoor, with terms such as commissions, favours or gifts not finding place in his way of thinking and he led a simple and frugal life.

Baker as a Philosopher

The young Laurie Baker had contacts with the Society of Quakers who believed in respecting everyone irrespective of class or income, living in peace without hurting others and in the power of non-violence. Influenced by them, he trusted the Quaker ideal—that there is a form of direct unity with the creator that man can experience at any time, in any place and under any circumstance, and which reveals his spiritual dimension. Generally, very little is known of Baker's spiritual and philosophical positions, but we know that he had a solid grounding in this respect. This early childhood foundation led him to look at his own prejudices, question them and see if they were still justifiable. He advised having faith in one's own convictions and the courage to stick to them, yet respect those of others. Accordingly, it became important that honesty and truthfulness were important, and not only in buildings.

Baker for Sustainability

Much before the buzzwords on climate crisis got around, Laurie Baker advised studying and knowing local materials, their availability, performance, costs, techniques and workmen who know how to use them. It was also necessary to know how much energy is used in the manufacture and transport of materials and to avoid using energy-intensive materials wherever possible. His concerns about resource depletion



prevented him from doing anything that was not necessary. He suggested that we explain this to our clients when their demands bordered on the unnecessary.

What we refer to as the carbon footprint today, Laurie Baker advocated in those days itself. He simply stated– 'trim your drawings, staff, equipment, travel, transport, papers, and expenses'. In other words, minimise your consumption and wastage, keep your footprint small and live such that sustainability matters.

Baker for Cost Effectiveness

Known today mostly for his cost-effective designs, Baker actually preached something more than that. He urged that cost efficiency was a way of life, not merely 'low cost for the poor', and also to practise what one preached. He also urged avoiding opulence, fashionable gimmicks and mere showing-off. Instead of using just words, through his numerous projects, Baker demonstrated dozens of ways of cost reduction, effective use of natural materials, alternative structural systems, simple technology and application of either tradition or modernity as justifiable.

Gandhi of Architecture

Many people have called Baker the 'Gandhi of Architecture', primarily connecting their simple ways of living and concern for the poor. Having been influenced by both, architects like me—who have experienced Bapu Kuti at Sevagram as well as Baker's buildings—can feel deeper connections between the two activists who can be thought of as leaders of India. Their omnipresent concerns for resilience, resources, identity, frugality, self-reliance, truthfulness, convictions and such others are pervasive. So too, their outright rejection of extravagance, snobbery, greed or outward showing-off. Together, Gandhi and Baker are moral and professional models for us, towards a newer way of life.

The seven sins stated by Gandhi and displayed at Bapu Kuti at Sevagram questions much of how we live today: Wealth without work; Pleasure without conscience; Science without humanity; Knowledge without character; Politics without principle; Commerce without morality and Worship without sacrifice. Many of these echo in the '20 Feelings about Being an Architect' that Baker summarised, and are freely available on the internet, in Baker's own handwriting, and from which I have liberally paraphrased in this essay.

Though brief, in his encounter with Gandhi, Baker imbibed his message that real independence can be only achieved by self-reliance and local craftsmanship. When his designs became famous, he stated very humbly, "Much of what has come to be described as 'Baker Architecture', I owe to these craftsmen." However, Gautam Bhatia, back in 1991, muses, "Much too often this message has been lost in the muddy waters of politics and the race to modernise India. Thus, Baker's work is more relevant particularly now than ever before."

Thirty years down the line, now in 2021, the architecture of India has been modernised. But it appears as if the opportunity to implement Gandhi's and Baker's approaches are nearly lost. Or, can we still revive them? Let us introspect.

Photographs Courtesy
Ar.Prasanth Mohan,
Running Studios

Prof. Sathya Prakash Varanashi studied architecture in Bangalore, Urban Design at SPA, Delhi and Heritage Conservation at UK. His 27-year-old firm Sathya Consultants designs cost-conscious, culturally appropriate and eco-friendly architecture, exploring varied design alternatives. Sathya is presently a Professor at the K.S. School of Architecture, Bangalore and is involved with academics, writing, events and NGO inclinations.

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Top Laurie Baker's Old Residence, Vagamon

BOOK REVIEW

MIND ON FIRE: THE JOURNEY OF AN ARCHITECT AS TOLD BY AR. S. GOPAKUMAR

Baburao Mhatre Gold Medal Recipient

Reviewed by Ar Manguesh R Prabhugaonker

The 2020 pandemic time opened up new vistas for many professionals in various aspects provoking architects to introspect, especially with the untold stories linked to our profession. . . Ar. Gopakumar utilised this wonderful opportunity to explore his life's journey and narrate a storyline across his past, present and future, down the memory lane reflecting his emotions and feelings integrated with facts and history as a storyline in his newly released book mind on fire: the journey of an architect.

The book portrays a story of modern architecture, as well as architectural education and professional practice, which he initiated in kerala in 1976. The chronological phases of his architectural practice are nicely compiled in this book with fond memories and records through his favourite medium of graphical representation woven into the book which makes it an eloquent read.

The collection of events speaks of the simplistic design approach filled with a lot of hard work and passion, which was ignited while working with ar. Charles correa. The traditional architectural typologies in kerala, which initiated his thought process, can be predominantly seen in the book are a tutorial for budding architects and students of architecture in our country. They are helpful to understand the principles of vernacular forms and its significance in today's contemporary world. The existence of modern architecture and its current direction in terms of architectural vocabulary versus the past along this coastal belt, is a perfect take away that initiates thought-provoking dialogues. Traditional craftsmen and their know-how on one side co-existing with sustainable practices and on the other, helps new generation architects to gear up in the world of digital architecture.

NIRVANA

The great master, laurie baker is also mentioned, with whom ar. Gopakumar has addressed issues of kerala architecture. He opines that this is mostly misunderstood by the government– the whys and hows reflected in this book can help sensitise the policymakers regarding the architectural past of every region in the country, which have unfortunately been ignored for various commercial reasons.

The system of professional practice adopted by ar. Charles correa has been well explained in this book. Ar. Gopakumar has provoked the young generation to think about design processes and the changes in design in the interest of projects, which lead to the defining of 'creativity', growing with time, design unlimited approach, standing your ground and many more that make architect stay strong with his values and principles, is narrated to the reader.

Art, photography and travel are mentioned as an integral part of architecture. Economics of architecture, climatic design, designing with nature and many more hidden treasures that he experienced as a young architect, to being a recipient of the prestigious baburao mhatre gold medal motivate and inspire the reader in terms of multi-tasking skills that the architect has to deliver as a professional.

Significance of professional bodies and their responsibilities also make its presence in the book, with an attempt to narrate several issues linked with architectural education and practice. Social commitments that revolve around an architect's life are also featured.

By and large, this book is inspirational and definitely worth a read. The book concludes with philosophies of the process of design, and that there is nothing called 'perfect' design. Design is a never-ending process with new vistas opening up at every turn, making one realise that the creator and the creations are the same.

Ar. S. Gopakumar

Manguesh R Prabhugaonker

Architect, B.Arch., M.Landscape Arch (Spa, New Delhi), FIIA. FISOLA, AIIID

National Council member
Indian Institute of Architects (IIA)

IMA HOUSE
KOCHI

HDFC

TALL TREES RESORT
MUNNAR

PHOTO ESSAY

GLIMPSES OF ATHANGUDI BUILDING TRADITION

By Niranjan Das Sharma

Athangudi tiles have brilliant colours, customisable patterns and a beautiful shine for a very low price. These were indigenously developed cement tiles by the craftsmen which were brought in from Thanjavur by the patrons of Athangudi. They had to imitate the imported tiles which they were finding short in supply. This craft is the only living skill left back by the Athangudi building tradition.

Paradoxically, architecture, which generated this craft, is in a decaying state. Most of the mansions are abandoned by the owners as they migrated to other places in search of better fortune. Some preserve it for occasional family get-togethers and some have converted to museums and home stays. In some, people still live.

Most of the buildings have a monochromatic sepia tone, presumably because of the surkhi plaster, gives the feel of an archaeological site/a time locked place. The colours which pop out occasionally also seem to get muted because of this overwhelming tone. People who live there also seem to have imbibed that character and colour.

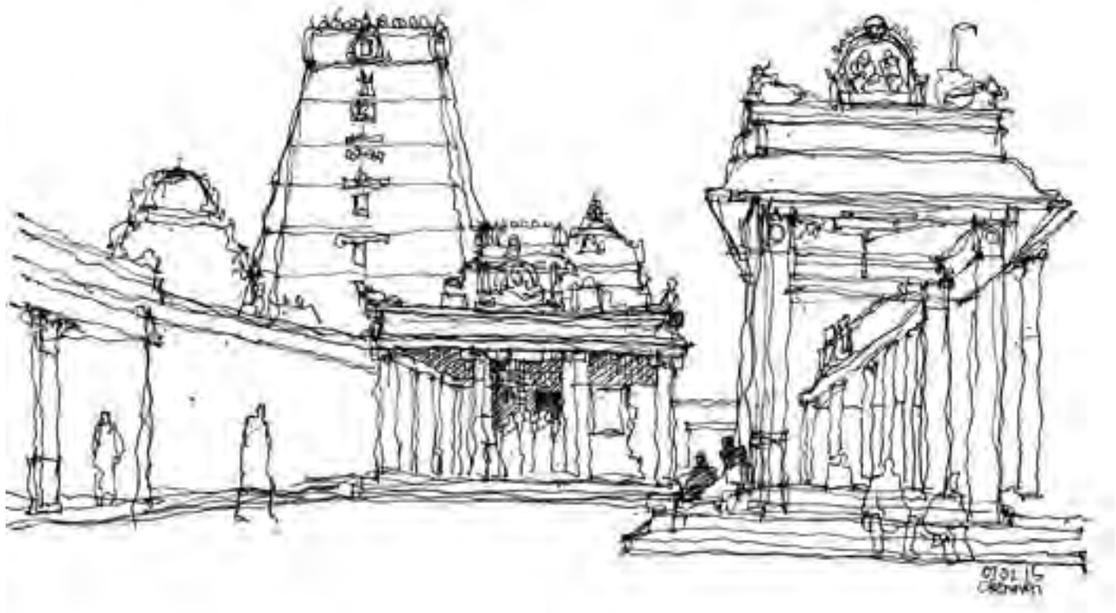
This craft of tile making is also dying a slow death being a very unorganised sector, lack of quality control, unavailability of raw materials lack of interest of the next generation, and many such factors.

Ar. Niranjan Das Sharma is a Cochin based architect and a partner at RGB Architects, a firm that has been meticulously designing spaces since 2011, with a body of work that is critical yet familiar, modern yet endearing, specific yet rational. Niranjan is an inveterate traveller with an eye for detail and photography. He is an alumnus of TKM College of Engineering and a life member of PhotoMuse.

STORIES THROUGH LINES

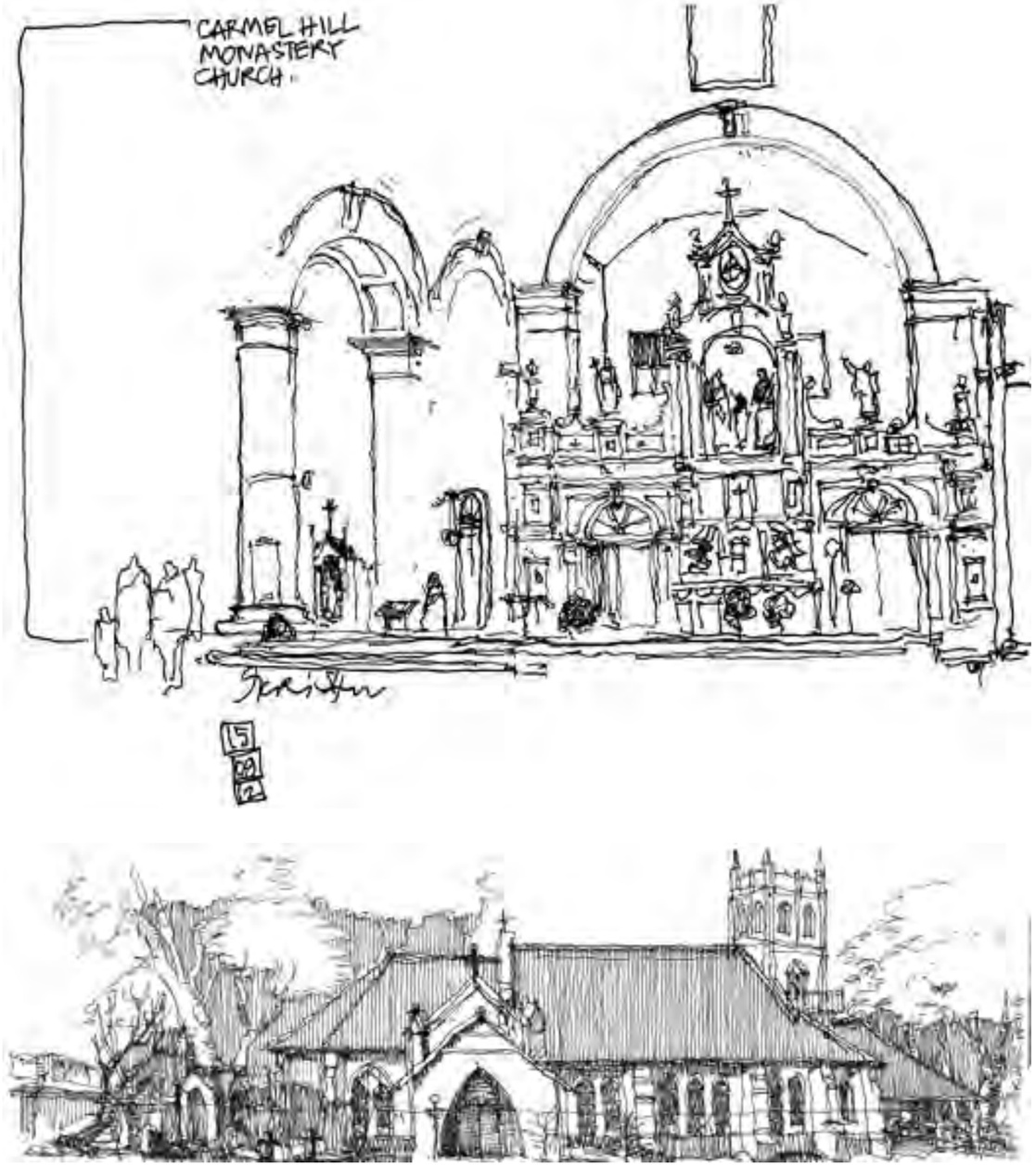
A graduate from Kerala University, **Jayakrishnan K.B.** (popularly known as JK) is an architect with multiple talents. He is an artist, urban sketcher, a passionate photographer and an avid traveller. He is a partner of World Architecture Travel, a platform that combines architecture and travel.

He started the JCJR partnership firm based in Trivandrum along with Ar. Chitra Nair, which has won numerous awards and recognitions over the years. He has been instrumental in organizing many events with the IIA, including Beyond Bricks commemorating the birth centenary of Ar. Laurie Baker. He was also the convenor for IIA National Awards 2018.



A hot summer noon at Mylapore Temple, Chennai
It was a hot sunny day, in Chennai, and people were taking shelter under large corridor spaces leaving empty courtyard.

Kothuwall Street, Chalai Market, Trivandrum
A walk through the busy streets of Chalai market, one of the most thriving business streets since 18th century—continues to be an interesting study.



(Top) Altar of Carmel Hill Monastery Roman Catholic Latin Church
I always love to walk into this chapel, with its beautifully crafted sanctuary of Christian imagery. Built in 1902 in rubble masonry, it is one of the most iconic churches in Trivandrum.

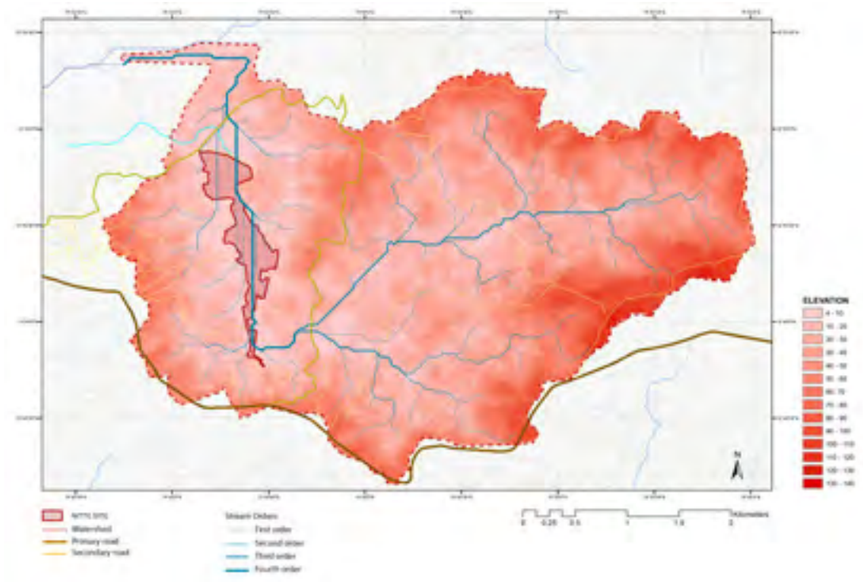
(Bottom) CSI CRIST CHURCH, Trivandrum
Mornings in Christ Church are always silent, even though it is right in the centre of the city. With a dominating roof on a green patch, restructuring of this church by Laurie Baker is always an inspiration.

(Top) Indian Coffee House, Trivandrum
An iconic building in the heart of the city, by Laurie Baker. A great urban intervention to accommodate peoples' café. Always cherish a coffee from the coffee house.

(Bottom) A Morning in Prague
"Prague never lets you go... this dear little mother has sharp claws."—Franz Kafka

BUILDING RESILIENCE THROUGH LANDSCAPE

by Rohini Venkataswami & Rohit Marol



A. Surface Hydrology

Living through the COVID-19 pandemic with the spectre of uncertainty still looming large, we have learnt to deal with the challenges that have suddenly changed the way we live, work and interact as a community. We have now learnt to live within our means and resources and adapt to sudden and unexpected changes that have altered almost every aspect of life. As architects the pandemic has brought in new challenges in design and perception of our built environment. We now look forward to bouncing back with resilience to a post-pandemic world learning valuable lessons from our current experiences. This is also an appropriate time to introspect on how we can build resilience into our lives and living environments.

Resilience can be defined as the inherent ability of a system or community to withstand sudden or unexpected disturbances or disruptions while retaining its function and structure. Resilience is not just the ability to bounce back from natural disasters or calamities. Rather it can be described as a sense of preparedness to accept and understand the vagaries of nature and adapt positively. As architects, landscape architects and planners, there is a definitive need to build resilience into our projects, cities and communities.

A key performance indicator for any architectural or planning project is how effectively the design responds to the natural characteristics of the site. Any development which recognises the inter-relationship between the built fabric and the inherent natural qualities of the site and responds positively achieves a level of resilience within. A landscape architect's role helps to build resilience in projects by bridging the natural and the man-made and provide the much-needed connect to nature through an understanding of natural processes and ecosystem components. A landscape architect's role is multidisciplinary integrating a deep understanding of ecology, botany, hydrology, geo-morphology, sustainability principles, etc.

When a landscape architect is on board during the preliminary stages of a project and when it is at site planning level, he/she helps to build with nature rather than against it. An appropriate contextual response that is sensitive to the topography, climate, hydrological and vegetation patterns is a strong driver to creating environmentally sensitive and resilient development. The work of landscape architects is scalable and does not necessarily deal with macro-level planning. It is possible to build a resilient and sustainable response even in a small residence by working with the natural lay of the land, appropriate management of water, energy and waste management and responsible use of materials. Landscape architecture, in essence, helps to achieve resilience by working with nature rather than subjugating it.

Building Resilience: Campus Master Planning

To demonstrate this concept of resilience we present our approach to master for a university campus proposed to be developed on a 120-acre-site at Mangalore, Karnataka.

Site Challenges

The fundamental challenge which the site presented apart from its narrow and linear profile was that it was a flood plain forming the lower reaches of a larger natural drainage basin and partly used for paddy cultivation as seen in figure A. This meant that the site was under constant threat of flooding and inundation during the monsoons season. To translate what was perceived as the biggest constraint into an opportunity our approach focused on understanding and working within the hydrological dynamics of the site. As master planners, our focus was to recognise the flood plain as a 'landscape asset' which would be reinforced and integrated into the overall planning approach.

B. Campus Vision: Integrated water management

C. Campus Master Plan

D. The water edge as activity hub

E. Water takes centre stage

Hydrological Dynamics:

The following are the hydrological features of the site:

- A seasonal stream runs along the site on the west and drains into the River Nethravati further north of the site.
- The same stream receives tidal incursions. A recently constructed check dam (north of the site) stops the tidal influx.
- The discharge capacity of the stream is grossly insufficient during the monsoon and two-thirds of the site experiences seasonal flooding every year.
- The northern reaches of the site sustain brackish water due to sub-surface intrusion of salt water from the northern lowlands.

The Design Response

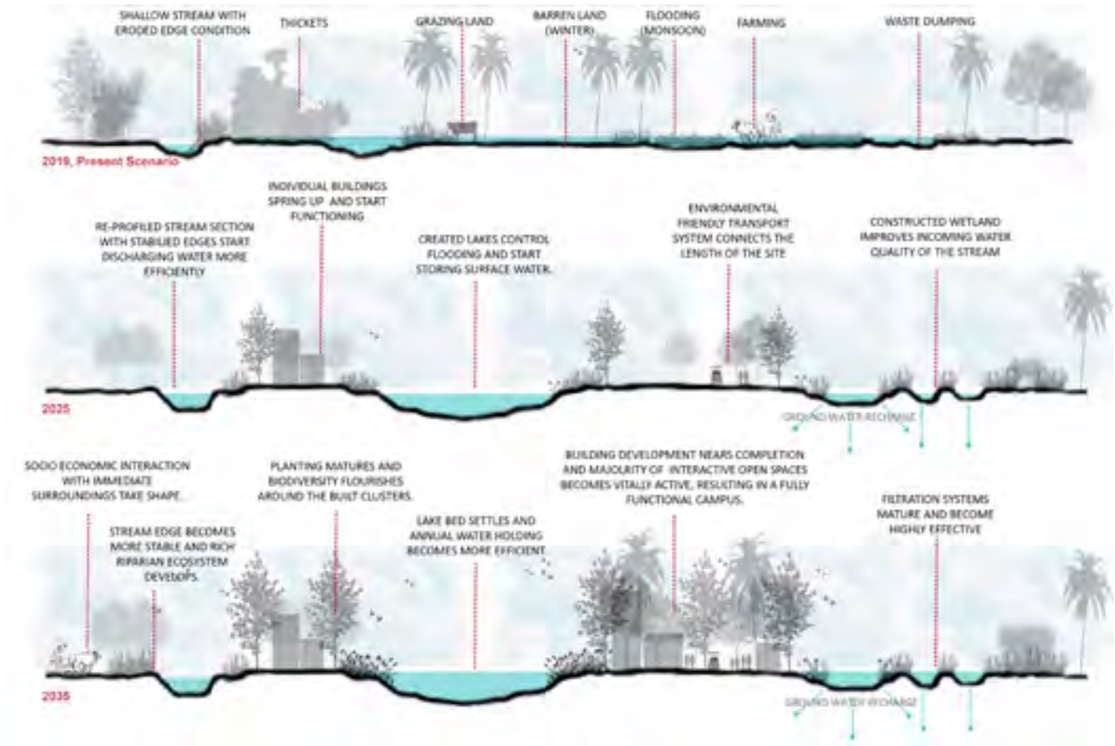
The axiom of the Master Plan development relied profoundly on preserving and further reinforcing the natural landscape flows and numerous tangible and intangible interactions between the site and its surroundings as illustrated in figure B.

The plan thus evolved around a deliberately articulated central water management system that traverses the site from north to south in line with the natural flow integrating clusters of functional and ecological niches along its length. The varying cross-sectional profiles and vegetation characteristics are articulated in different ways to mimic natural eco-systems morphing into narrow streams, wider riparian channels, retention and flood control basins, constructed wetlands, etc., designed to perform specific functions in the overall management of surface run off. The primary spine of movement intertwines with the serpentine water element sometimes running along the edges and sometimes traversing it thereby enhancing the experiential aspect while driving through the campus as indicated in the Master Plan in figure C.

By recognizing and working with the natural drainage patterns, we created an ecosystem that over a period of time will be self-sustaining and resilient with respect to the monsoon cycles. The re-profiled stream sections with stabilized edges discharge water more efficiently. The larger lakes created helped control flooding and store surface run-off for future use. The constructed wetlands, through their root zone filtration systems, improve the quality of incoming water from the stream.

Campus Vision A Decade from now

Over a period of time, as illustrated in figure G, the built forms comprising of faculty and amenity blocks, services and other infrastructure components are completed in tandem with the development of the proposed central water



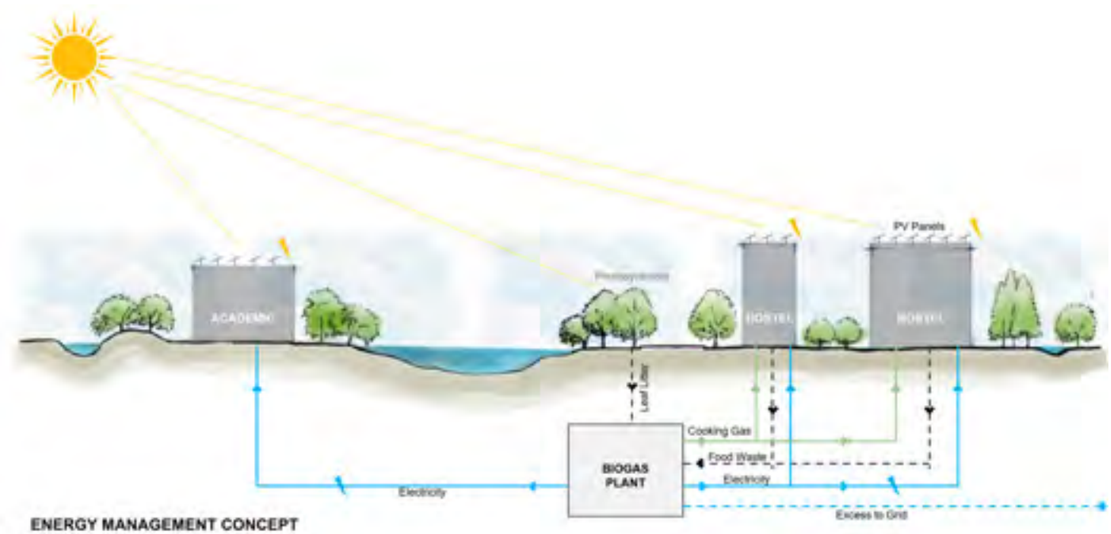
G. Water management scheme through eco-systems

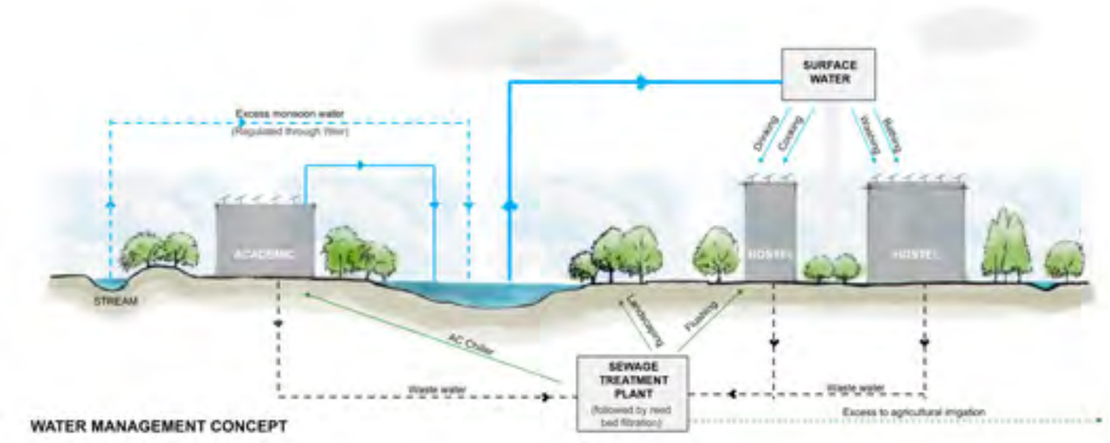
management system. A symbiotic relationship with the natural and man-made begins to emerge creating an ideal atmosphere for learning and interaction. The water's edge with its varied articulations also becomes a focal point of student activity and interaction. Student plazas and recreation amenities are set out along the water edge, adding to the vitality and vibrance of campus life. The faculty blocks are visually unobtrusive, tucked away from the main stream and spine, secluded and safe from inundation during monsoon. Gradually, the stream's edge becomes more stable, and a rich riparian ecosystem would develop making it self-sustainable. The planting would mature, and biodiversity would flourish along the built clusters creating a natural setting and adding to the feel of a 'green campus'. The lake-bed will settle and the annual water holding is expected to become more efficient, making it available during dry spells. The constructed wetlands become natural filtration systems that mature and become highly effective to function as natural water treatment systems.

As the building development phase nears completion, most interactive open spaces become functional and active, resulting in a fully functional campus. Strategies have also been proposed for energy and waste management so that the campus becomes self-reliant for energy needs. An environmentally friendly transport system connects the length of the site making it a truly green campus.

Undoubtedly, in today's context, 'resilience' takes predominance over 'sustainability' as the new buzzword. While sustainability teaches us to minimize our impact on the eco system, resilience teaches us that change is the only constant and building resilience within cities and communities is what helps us to be better prepared to accept and deal with natural repercussions.

Sensitively designed urban landscapes are building blocks of resilience when it comes to adapting and working within the forces of nature. Integrating these with socio-cultural and economic paradigms is the way forward to build sustainable and resilient communities.





H. Energy use and water recycling

Ms. Rohini Venkataswami is currently the Studio Director at Terra Firma, Bengaluru. She completed her Bachelor's degree in architecture at the School of Architecture & Planning, Anna University, Chennai and obtained her Master's degree in landscape architecture from the School of Planning & Architecture, New Delhi.

Rohit Marol is the Founder Principal of Terra Firma, a firm specializing in landscape architecture in Bengaluru. Since its inception in 1985, the firm has delivered landscapes across typologies ranging from private residences to large-scale tourism development demonstrating the uniqueness of each for its specific use and character. He graduated in Architecture from UVCE Bangalore, 1981 and obtained his Master's in landscape architecture from School of Planning and Architecture, New Delhi in 1984. Rohit's mentorship drives all projects at Terra Firma. His passion for design and attention to detail combined with his instinctive ability to respond to site and context has driven his design approach.

NEWSLETTER APRIL

Obituaries

Heartfelt Condolences

Our sincere sympathies are with all those who have borne the immeasurable cruelty of the COVID pandemic or due to other tragic circumstances, with the loss of their loved ones. All the members of the Indian Institute of Architects convey their deepest condolences to all the bereaved families, relatives and friends of those of who have passed on. We join you all in mourning. Words will never suffice to express the sorrow that we feel for the passing of all loved ones.

The battle is within...
by Chintan Shah

The time of sorrow has begun…
And there is no place to go,
There is a shortage of resources…
But no one is ready to use less,
There is a shortage of hours…
But no one is ready to initiate,
Crisis is clasping us day by day…
And we are unable to spread our wings,
Holding the closed ones is threatening…
It's a situation which wants us to bleed,
It will compete us to our last breathe…
Cause it is utterly determined to its will,
We are fighting for the wounds of each other…
But the battle is within.

Running from the situation is futile…
Distancing is the real wisdom,
Keep yourself in a closed space…
A built environment that can save,
It is a lesson to learn for a lifetime…
That a nature to be given its own space,
Now there is no point of regret…
We need to respond calmly to restrain,
Safer world is a need of the time…
Resurgence of our voices is desired,
Patience will bring the peace…
Unless we limit our needs,
Responsive to awful condition is requisite…
Cause the battle is within.

Ar. Arvind Wadke
(October 13, 1953–March 27, 2021)
While we mourn the loss of our colleague, we pay tribute and celebrate a life that was well-lived. Not many leave behind a legacy of such dedication and accomplishment. Arvind Wadke graduated from the Academy of Architecture in 1978. Always a bright and sharp student, his most remarkable quality was his helping nature which persisted till his last breath. An avid reader, he gladly shared his knowledge of literature and other subjects with his friends, colleagues and even strangers. He was keenly interested in valuation of property and played a major role in solving the collector land issues.

Along with working with several architects such as Ar. Pradeep Amberkar, Amir Nensey & Co., Ar. C.D. Vaidya, Ar. Jayant Vaidya, he was also a part of the Rajiv Gandhi Institute of Technology at Versova, Raigad Military School at Oshiwara and Malcolm Baug at Jogeshwari. He was also an active member of IIA & PEATA. He passed away after fighting with an illness which lasted over a year.

Ar. Hrushikesh Kulkarni
(August 14, 1968 – April 17, 2021)
Member, IIA-Solapur Centre
Ar. Hrushikesh always had a smile on his face. He was an expert on residential high-rises and public buildings and has changed the skyline of Solapur with his architecture. Solapur has lost an honest and multi-talented architect.

Ar. Surendra Rane
(December 4, 1960 – March 25, 2021)
Ar. Surendra Rane graduated from the L.S. Raheja College of Architecture, Mumbai in 1985 and went on to complete a Masters in Environmental Architecture in 2017. Along with being the principal architect at his firm, M/s Surendra Rane and Associates, his teaching experience spanned over twenty-five years during which he taught at his alma mater, L.S. Raheja CoA and at D.Y. Patil CoA. He also served as the principal of the V.P.P. Manohar Phalke College of Architecture.

Ar. Uday More
(December 23,1964 – May 1, 2021)
After graduating in 1988, Ar. Uday More completed his Masters in Environmental Architecture in 2017. He had executed numerous commercial, industrial, residential and cold storage projects during his tenure as Principal Architect at Smit Arch, M/s Arise, M/s Adhiraj & Associates and M/s USK Associates.

He had started his teaching career at D.Y. Patil COA. He had also been Professor at Vishwaniketan COA. He was serving as the Principal of B.R. Harne College of Architecture, Vangani, when he passed away. For all his students, he was a pillar of strength who guided them through difficult times. He taught kindness and compassion by being a living example of these qualities. He had the ability to connect with individuals and knew how to bring about the best in each one, whether student or faculty. He is survived by his wife, a daughter and a son.

Ar. Arun Kumar Prabhat
(October 10, 1986 – April 27, 2021)
Ar. Arun Kumar Prabhat hailed from a small village in Bihar. He graduated from BIT Mesra, Ranchi and was the Principal Architect of Abhikalp. He grew to being an eminent architect of Bihar and played an important and inspirational role in the architectural fraternity. He was a Fellow of IIA. He had designed varied buildings ranging from residential, commercial to community buildings. Having lost the war to COVID-19, he is survived by his wife, two brothers and a sister.

Ar Vinay Suryakant Wakalkar
(July 17, 1974 – March 10, 2021)
Ar Vinay Suryakant Wakalkar graduated from SPSMBH's College of Architecture, Kolhapur in 1996. He was the Director and Principal Architect of VOW5 Architects, Pune, having an architectural practice in residential, commercial projects and in valuation in Pune, Jalgoan, Mumbai, Kolhapur and Kokan area. He had a multi-talented personality involved in Marathi films and drama as a producer. He also held the Guinness World Record for the longest human chain below the sea by scuba diving.

Ar. Prof. S.H.H. Naqvi
(1942–2021)
Prof. Naqvi was a graduate of the University of Roorkee (1966). After a short stint with the government of Uttar Pradesh, he worked with the Libyan government for some years. With his vast practical experience, he then turned to academics. He will always be remembered for his gentleness.

Ar. Namita Sanjeev

Ar Namita Sanjeev had become a member of IIA through the examination mode. She was working as Assistant Architect with the Uttar Pradesh Rajkiya Nirman Nigam, a public sector undertaking (PSU) of the UP government.

Ar. J.P. Srivastav

One of the initial members of IIA from UP, Ar. J.P. Srivastav, a graduate from University of Roorkee (1968) pioneered the practice of architecture in Gorakhpur and paved the way for the next generations of the profession.

Ar. Sunabh Sarkar

Ar. Sunabh Sarkar had been an Executive Committee Member, Northern Chapter (2012)

Ar Narendra Swaroop Johri
(1928 – 2021)
Ar. Narendra Swaroop Johri completed his Govt. Diploma in Architecture from Sir JJ School of Architecture, Bombay in 1951. After obtaining the coveted membership of Royal Institute of British Architects in 1955, he got his PG Diploma in Town Planning from Manchester, UK in 1959. Thereafter, he joined the Uttar Pradesh Town and Country Planning Department in 1965. Until 1979 he was on deputation as the Chief Architect and Town Planner, Benghazi Government of Libya (1965–70) and then as Senior Architect and Town Planner with the U.P. Housing and Development Board where he established and headed the Architecture and Planning Wing (1971–1979) which became leading-most architecture establishment of any housing agency in the country. During his tenure, the Board won the prestigious HUDCO national housing competition in 1976. On completion of the deputation in 1979, he returned to his parent department, from where he retired from the post of Chief Town and Country Planner in 1987. Ar. Johri was the fellow of the Indian Institute of Architects and the Institute of Town Planners, India.

Ar. Sushama Joglekar

Ar. Sushama Joglekar was a Professor at Sir J.J. College of Architecture, University of Mumbai. She had obtained her Ph.D. from S.N.D.T. Women's University on the subject of Architectural Education. She had teaching experience of 29 years. She had been the Chairman of the Board of Studies of Architecture, for two terms, as well as the Chairperson of the Women Development Cell of the University of Mumbai.

She had presented papers on architectural education, origami and architecture and research in architecture. Her interest lay in the design of geometry-based origami objects and had participated in origami exhibitions. She had conducted electives on this for the students of Sir J.J. college of Architecture and conducted workshops for students of architecture in Mumbai and Navi Mumbai.

She passed away due to COVID on 6 May 2021.

Ar. V N Shah

Ar. V N Shah had held the posts of Vice-President of IIA and the Chairman of Chandigarh-Punjab Chapter. As a teacher at Chandigarh College of Architecture, his students always admired him as a mentor who always looked out for their welfare and interest. The affection and love that followed his students even after they joined the profession will be sorely missed.

He will be missed as a wonderful humanist, a great professional and as a maker of institutions, such as the Departments of Architecture of Himachal Pradesh, Haryana, BSL and Talwara Township. He also served as the Chief Architect of Himachal Pradesh and Haryana.

News

We are proud to announce that Ar. Ranee Vedamuthu, IIA National Council Member, has been appointed as the Registrar of Anna University, Chennai. She will be the university's first woman registrar.

Congratulations Ar. Ranee Vedamuthu!

We are happy to announce that Ar. Ashutosh Kumar Agarwal, Jt. Hon. Secretary, IIA National Council Member, has been appointed as a Member of Delhi Urban Art Commission under the Ministry of Housing and Urban Affairs (Delhi Division).

Erratum: We regret the misprint of the name of Ar. Anand Jayaram Tatu, Gujarat on page 8 of the March issue of JIIA.

Chattisgarh Chapter

Bilaspur Centre

Bilaspur Centre rendering services to COVID patients under the guidance of the doctors.

Himachal Pradesh Chapter

❶ Himachali Haat: State Level Live Project

Students of Third Year, B. Arch. of the School of Architecture, Rajiv Gandhi Govt. Engineering College Kangra, Himachal Pradesh undertook the design of a live project at the state level of 'Himachali Haat'. Under the guidance of Ar. Aman Deep Gupta, Assistant Professor and Dr. Satish Kumar, Head of the School of Architecture, the batch of 38 students evolved the preliminary sketch proposals of Himachali Haat, likely to be executed at Poanta Sahib, Sirmour District. Some of the themes were based on the following concepts: fairs and festivals, Him Shakti, Dhattu, Trigarth, HIM-MTSWA, Neo-Nari, Himachali topi, temples of Himachal and traditional village.

The viability of practical aspects and implementation were assessed by a team of practicing architects who visited the campus of the School of Architecture at a jury conducted on 27 March 2021 at Nagrota Bagwan. The team consisted of Ar. L.M. Mastana, Sr. Architect of HPPWD, Executive Member IIA-HP Chapter, Ar. Uday Bhardwaj and was headed by Ar. Nand Lal Chandel, Chief Architect of HPPWD and Chairman of IIA–HP Chapter. They evaluated the proposals and gave valuable inputs for a more practical orientation.

❷ "What makes a Building Green?" Lecture by Prof. Jit Kumar Gupta, Chairman IGBC Chandigarh

In view of the current trends in architectural education and to adhere to the requirement of the Energy Conservation Building Code (ECBC) for architectural education and practice, a guest lecture webinar on the topic "What makes a building Green?" had been arranged in association with IIA-HP Chapter on March 20, 2021 at the School of Architecture, Kangra. Dr. Satish Kumar Katwal, Head of the School of Architecture extended his warm welcome to all dignitaries and participants on this occasion. The Hon'ble Chairman Ar. Nand Lal Chandel along with many distinguished members of IIA-HP Chapter participated in the webinar. Ar. Nand Lal Chandel also gave the overview of the IIA-HP Chapter and its future plans to the participants.

Karnataka Chapter

❶ Installation Ceremony: IIA-Karnataka Chapter – March 20, 2021

Installation of the new Office Bearers and Executive Committee Members of IIA-Karnataka Chapter headed by Chairman Elect Ar. B.R. Mohan was held on March 20, 2021 at the Four Seasons Hotel, Bengaluru.

Ar. H.C Thimmaiah, Trustee of IIA was the chief guest for the event. Past Karnataka Chairman, Ar. Leena Kumar and Ar. Vidyadhar Wodeyar graced the function along with prominent architects and academicians from Bengaluru. The Chairman and Executive Committee Members of all the six centres of Karnataka Chapter also attended the ceremony.

IIA-Karnataka Chairman, Ar. B.R. Mohan in his acceptance speech, re-visited the points which discussed in March 1959 in a seminar in which stalwarts like Ar. Bhalla, Ar. Kanvinde, Ar. Charles Correa, Ar. Piloo Modi had participated. He pointed out that we, as architects, were still in the same position, trying to address the same old concerns as we had 62 years ago. IIA-Karnataka Chairman, Ar. B.R. Mohan expressed, "It is time to address these, or we will regret forever. I will be happy to receive suggestions from the members who will help us achieve our objectives and strengthen our fraternity by addressing most of it, if not all."

All the committee heads shared the road map of their respective committees for the next two years. The chief guest Ar. H.C. Thimmaiah in his speech was highly appreciative of this vision-sharing and acknowledged that it was the first of its kind to have ever happened in an IIA installation ceremony with such clarity and responsibility. The installation ceremony was attended by more than 300 attendees.

JOURNAL OF INDIAN INSTITUTE OF ARCHITECTS

APRIL 2021

❷ MOU between School of Architecture, KLE Technological University, Hubballi, and IIA-Hubballi- Dharwad Centre, Karnataka Chapter

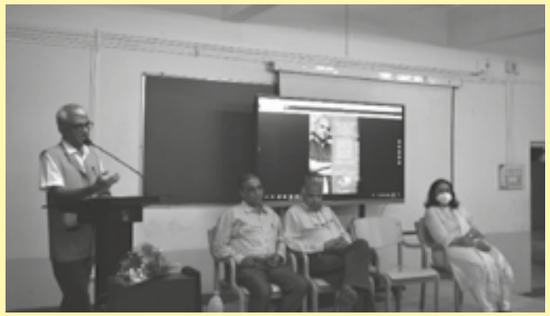
A Memorandum of Understanding on academic and profession collaboration was signed between the School of Architecture, KLE Technological University, Hubballi, Karnataka and IIA-Hubballi-Dharwad Centre, Karnataka Chapter, on March 18, 2021 between the KLE TECH Designate, Dr. Vinaya R. Hiremath, Head, SOA and IIA-HD Centre Designate Ar. Anand Pandurangi, Chairman, IIA-HD Centre for the year 2020-22.

❸ Interactive Session with Ar.Yatin Pandya

An interactive session with Ar. Yatin Pandya was organized by the IIA-Hubballi-Dharwad Centre, Karnataka Chapter in collaboration with SOA, KLE Technological University on March 19, 2021. It was attended by the architects of Hubballi-Dharwad Centre and students of SOA, KLE.

❹ EC meeting of IIA-Vijayapur Centre, Karnataka Chapter

EC meeting of IIA-Vijayapur Centre, Karnataka Chapter was held on March 24, 2021 to discuss the procurement of CA site. It was attended by more than 28 prominent architect members who expressed their views on the functioning of the Centre.



Compiled by: Ar. Nandita, Correspondent, IIA-KC for JIIA

Gujarat Chapter

1 IIA-Ahmedabad Centre:

Vaccination drive against covid-19

Since one year everyone is fighting against this pandemic and taking all precautions against COVID-19, and to make this fight more stronger, IIA-Ahmedabad, IIID Ahmedabad in association with GICEA and with the help of health Department of Ahmedabad Municipal Corporation (AMC) arranged a vaccination camp on April 15-16, 2021 to protect our dear members, associates and their family members as a social responsibility of IIA-Ahmadabad.

The vaccination drive was a very successful event and received very good response as good number of IIA members and their family members took this opportunity and got their jab and due to demand and response, the drive is extended for one more day on April 17, 2021.

We are thankful to every committee member and everyone who was behind this drive to help to make this camp successful.

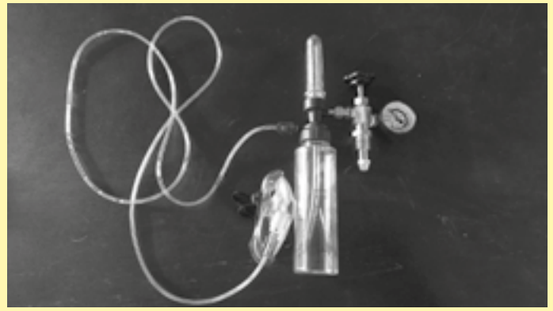
2 IIA-Vadodara Centre:

Sports has always been instrumental in fostering physical and mental fitness and resilience along with bridging the gap between communities and generations. COVID-19 mitigation strategies to arrest transmission has impacted the lives and activities of everyone. To rejuvenate everyone's spirits in the face of the 'new normal' and to transform challenges into new opportunities, leaders of the design fraternity collaborated on a unique proposal: 'Gujarat Designers Sports Summit 2021 – Samanvay'. The event, initiated by IIA-Gujarat and hosted by IIA-Vadodara with IIID Vadodara from March 20-21, 2021 at Darshanam Cricket Ground, Vadodara, saw avid participation from the architects from Gujarat, interior designers and trade members of Vadodara, Surat, Rajkot, Anand and Bharuch. IT integration through the app enabled many to view the event from their homes. The event commenced with a warm-up session of Zumba followed by a series of matches. There was a social dinner on the first evening to foster the spirit of togetherness amongst the members. To safeguard the health of players and all those present, COVID norms were strictly followed. It also helped design professionals realize first-hand the post-pandemic requirements, standards and organizational challenges for sports facilities. The success of the event also lay in the fact that it has been proposed to be held as a regular annual event.

❺ IIA-Saurashtra Centre

Professional Social Responsibility

Due to the scarcity of medical oxygen and its peripherals during the pandemic, the IIA-Saurashtra Centre has started supplying free oxygen flow meters for the members of IIA-Saurashtra Centre, as well as their members of their immediate families and staff. After securing approximately ten per cent of the required strength in Saurashtra, this service will also be extended to other IIA Centres and Chapters at a subsidized rate. This supply has also been extended to IIA-Madhya Pradesh Chapter and Chhattisgarh Chapter on an immediate basis.



Telangana Chapter

A Day Out at the Tombs

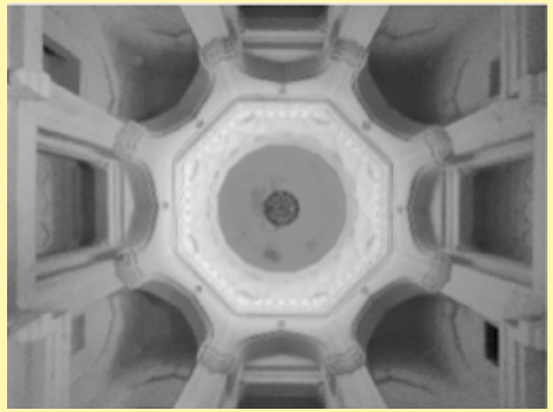
Getting out of home and gathering at 8:00 am on a Saturday morning is tough call. But here we were, almost fifty of us, at the Qutb Shahi Tomb Complex nestled at the foot of the famed Golconda Fort. The necropolis of the Qutb Shahi dynasty which ruled Hyderabad in the 16th and 17th centuries is spread over a hundred acres. Among the forty odd mausoleums, numerous mosques, baolis (step-wells) and other structures including a hamam (royal bath), is the tomb of Mohammed Quli Qutb Shah, the founder of Hyderabad and the builder of the iconic Charminar.

Over the past decade, the entire complex is being given a much-needed makeover by the Aga Khan Trust for Culture (AKTC) as per the prescribed standards of UNESCO. In partnership with the Govt of Telangana, the conservation of the built structures, re-envisioning the landscape, putting in place a new Interpretation Centre and other utilities, AKTC is addressing a challenging task.

The two-hour walk was led by conservation architect Prashant Banerjee of AKTC. Having been at the helm of the project since its beginning, he gave us the backdrop of the history, conservation methods followed. With his hands-on knowledge, we understood the abuse suffered by the tombs in earlier restorations and the efforts required to rectify those. We also saw the lime mortar processing yard. We learnt about the detailing of functional elements like waterspouts: where no documentary or visual evidence was found for the dilapidated portions, they were made in a contemporary design to set them apart from the original.

It was evident that a project such as this goes a long way in resurgence of traditional skills and in the revival of vanishing building crafts. This walk had been organised as part of the new IIA team's outreach programme, and conceptualised and coordinated by EC member Ar. G. Srinivas Murthy, to help understand the patience and perseverance required for such an iconic project. Members from all age groups, including a few students joined the event, and had an interactive session with Ar. Prashant Banerjee. After the walk, breakfast was served under a tamarind tree in a historic courtyard.

The pavilion, cool and breezy even in the afternoon even without a ceiling fan and was an ideal location for the EC meeting where the committees and members outlined their plans for the year. Chairperson Ar. Uday Shankar chaired the session and gave a brief outline of the National Council meet at Chennai which he had attended recently with National Council Member Ar. K. Muralidhar Reddy. It was a memorable outing for the participants and fruitful discussions for the Committee members.



Maharashtra Chapter

IIA-Brihan Mumbai Centre Report for March 2021

IIA-Brihan Mumbai Centre formalized their programmes for outreach to the practicing fraternity as well as to the students at the threshold of practice. For the former, in association with Vivekanand Education Society of College of Architecture, an online course on arbitration shall be held in the month of June 2021. It shall be for a duration of four weeks, with certificates awarded to the successful participants.

For the students, the IIA-Brihan Mumbai Centre will be holding a Design Dissertation (IIA-BMC-DD) Awards programme for the graduating students of 2019–2020 from the colleges of the Mumbai Metropolitan Region (MMR). The Fi-

nal Year dissertations will be evaluated from prominent architects of MMR on the basis of practical efficiency, applicability to the real world, buildability, architectural representation, sustainability, universal accessibility, viability and functionality along with aesthetics. More details are available at: http://www.iiamumbai.com/competitions.php

The Committee members went for a visit to the renowned building that house the Municipal Corporation of Greater Mumbai (MCGM) built by Ar. F.W. Stevens in 1893. They were given an insightful tour on the historical and architectural aspects of its heritage.

Karad-IIA Sub-Centre

Karad-IIA Sub-Centre has taken up the initiative to help segregate recyclable inorganic solid waste at source in the city by signing a memorandum of understanding with Karad Municipal Council (KMC). The tri-partite agreement was signed in the presence of Mr. Ramakant Dake, Chief Officer of KMC, Ar. Sarang Belapure, Chairman of Karad-IIA Sub-Centre, Ar. Shaunak Kadam, member of IIA and proprietor of RID OF your Trash (RIDOFT). Others present included Ms Rohini Shinde, President of KMC; Mr. Jaywant Patil, Vice-President of KMC; Ar. Udayan Kulkarni, EC Member of Maharashtra Chapter and Mr. Rafiq Bhaldar, Health Engineer of KMC. The members of IIA-Karad Sub-Centre present were Ar. Salim Shaikh, Vice-Chairman; Ar. Jitendra Bhandari, Hon. Treasurer; Ar. Priyadarshani Desale, Hon. Sec. along with other members.

In accordance with the seventeen sustainable development goals (SDGs) of the United Nations for a sustainable future and taking into account the costs of municipal solid waste management, its operation and maintenance, RIDOFT Sustainable Environs Pvt. Ltd. has developed a free and user-friendly mobile app to promote collection of recyclable solid waste with the help of local shops such as kirana stores, or apparel and electronic stores, pharmacies, kabadi-walas or anyone interested in making money out of waste. These will be collectors of products/packaging waste and the details entered with the app, earning rewards for both parties. This app hopes to replace the existing municipal solid waste (MSW) model by promoting a circular economy through managing waste at its source and prevent it ending up in landfills. More importantly, it anticipates a positive in change the behavioural pattern of society towards waste. IIA-Karad Sub-Centre has decided to bear the expenses for this venture and is eager to share its experience and help other centres in coming together towards this cause.

IIA-Sangli Centre

On behalf of the architectural fraternity, the members of the IIA-Sangli Centre donated an amount of Rs. 500000 towards those affected by the COVID-19 pandemic as a strong statement of their responsibility towards society.

Haryana Chapter

The year 2021 started with the last and first General Body meetings of Haryana Chapter, Faridabad Centre and Gurgaon Centre. The newly elected members were introduced to and interacted with the General Body. The Chairman and members attended a road-naming ceremony in Gurgaon in the memory of late Ar. Gajraj Singh Rao, who had been the founder Chairman of IIA-Gurgaon Centre.

The last and first General Body meetings were also held by the Sub-Centres of Hisar, Sonepat, Karnal-Kurukshetra, Ambala and Panchkula Centre. The latter two were attended by Ar. Punit Sethi and Ar. Surender Singh, Chairman and Jt. Hon. Secretary of Haryana Chapter, along with other members of the Executive Committee. They also participated in an Architects Meet organised by Punjab Chapter in Ludhiana. A meeting of the Members of EC of Haryana Chapter was organised in Rewari, to create awareness of IIA and its activities among the architects in the city. They also discussed the municipal procedures and issues faced by the profession.

An online awareness programme on GRIHA for green buildings was organised in partnership with IIA Northern Chapter and the GRIHA council on March 6, 2021.

IIA-Faridabad Centre held a meeting on the eve of Holi at Badkhal Lake Complex to discuss interactive initiatives with the municipal authorities to address various problems faced by architects. Suggestions were also offered for the revival of Badkhal Lake through beautifications and by combating pollution and traffic-related problems.

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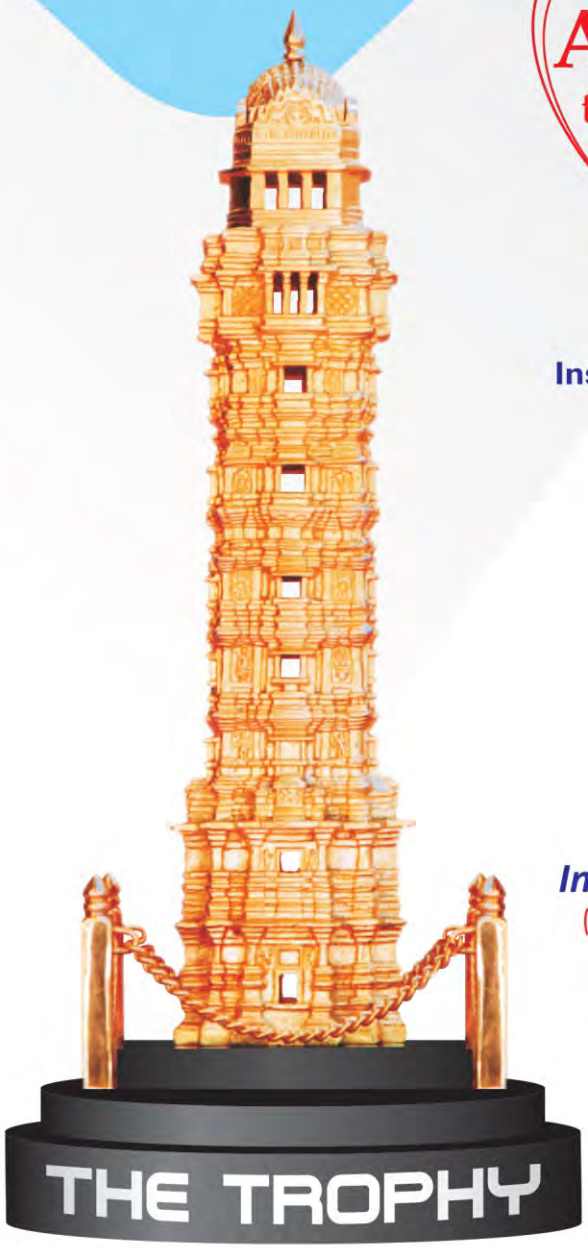

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