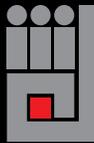


antaryya



INSTITUTE
OF INDIAN
INTERIOR
DESIGNERS

Bangalore Regional Chapter

TRANSFORM
THROUGH
LIGHTS

SPECIAL FEATURE
SWAROSKI DAZZLES IN MILAN

SPECIAL FEATURE
VERNACULAR ARCHITECTURE

MASTER STROKES
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DESIGN SPECTACLES
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CHAIRPERSON'S FOREWORD

Dear IIID Bangalore members,

After celebrating the Bangalore Chapter founder's day in March, relaxing during the summer holidays in April, we are now in the month of May, with the second issue of Antarya. Given the decision to focus on a theme in every issue, the first issue had carried wood as the theme. The second issue focuses on the nuances of lighting, showcasing projects that have used lighting in an innovative manner.

Lighting is an integral part of any interior, setting the tone for its ambience or the mood that is wished to be portrayed. What better way than to explore the science behind the concept of lighting, exploring various ways in which lighting can be tweaked, used to tell a story, transform the décor. Interestingly, the month of February too saw the Philips Workshop on lighting, taking the participants through the myriad paths in lighting design that technology has made possible. A fitting precedence to our current issue focusing on lighting as its theme!

May 25 is the day celebrated as "World Interiors Day" and IIID Bangalore chapter joins in recognising this important day by bringing out the second issue of Antarya, focusing on "Lighting ...a dimension to interiors in achieving a better quality of living". On the occasion of World Interiors Day, I extend my wishes to every interior designer.

I welcome all the members to join in and continue with us on the journey of making our design magazine a resounding success.

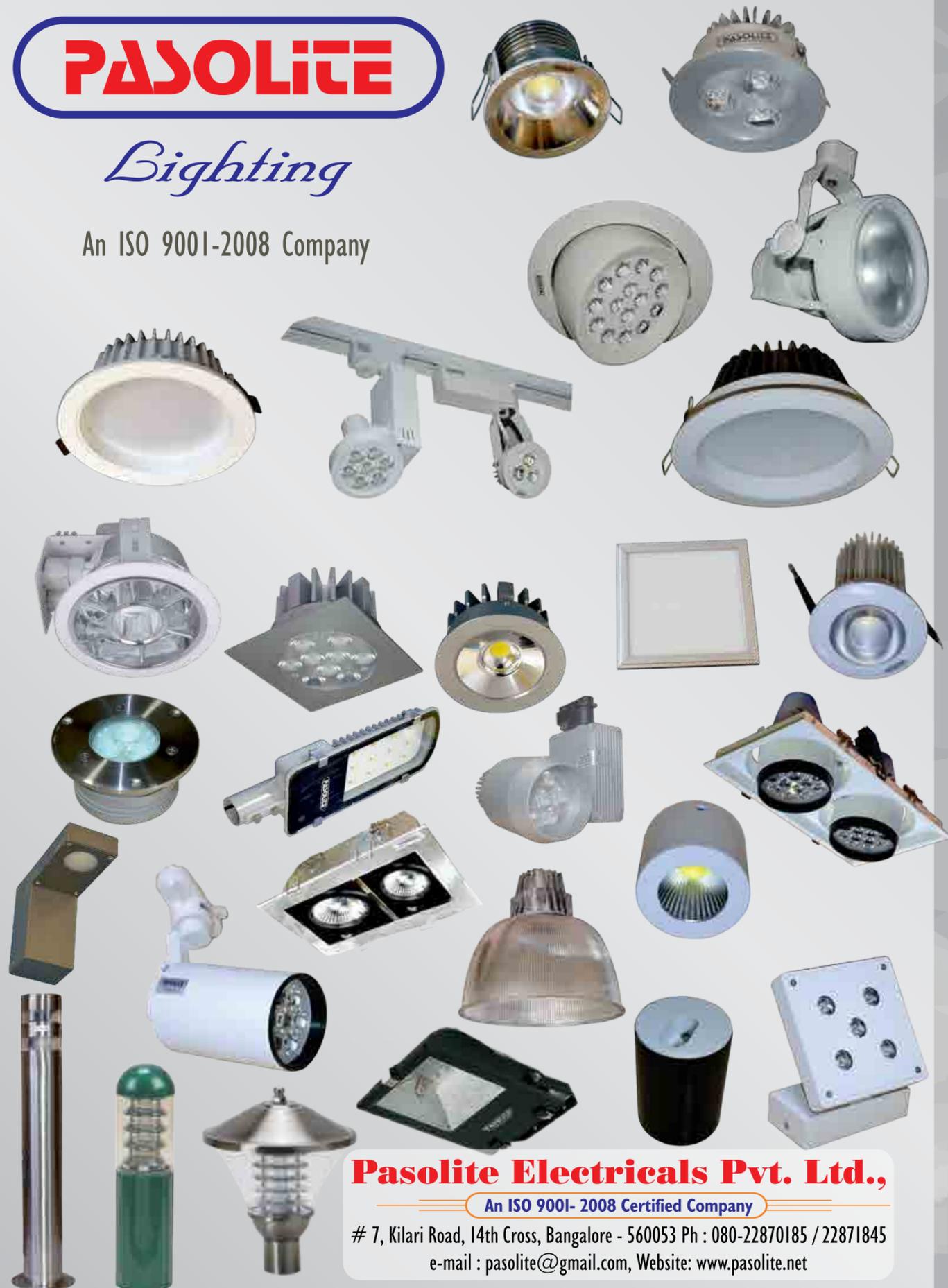
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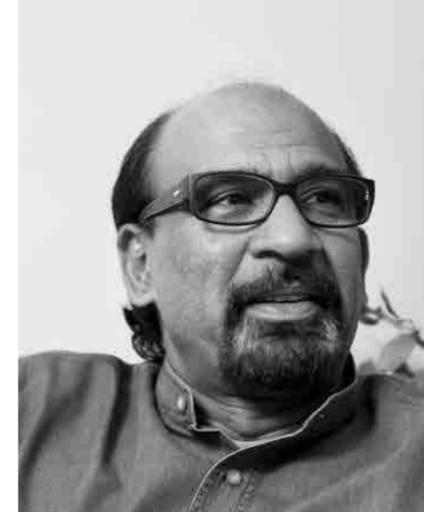
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EDITOR'S NOTE

The enthusiasm continues...

The launch of the first issue of Antarya had our heads in the clouds, but we kept our feet firm on the ground knowing very well that it is a learning process. Our enthusiasm for introducing special focus features as well as covering new sections in design continues. The current issue introduces an industry design feature as well as academic view point which were not there in the first issue. Our special focus feature this issue under the Green Sense section is on Vernacular Architecture.

Going forward, we hope to add more such special focus features as well as add new sections to make our magazine not only comprehensive in presenting design, but also informative while serving as an excellent platform for designers to showcase their work.

The current issue carries lighting as the theme with projects of designers having been presented. The next issue will carry Textures and Colours as the theme. We welcome all the members to share their work where they have used this theme in an innovative manner.

The success of Antarya is dependent on the active involvement of the members. We would like greater participation from the members in terms of sharing their projects, achievements as well as views. We welcome feedback from all our members to make Antarya in the coming months as the most sought after design magazine in the country.

All correspondence with regard to the magazine can be addressed to:

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Managing Editor

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ISSUE 01 JAN-FEB 2013



REVIEWS...

"Excellent presentation! A wonderful platform for Architects and Interior Designers to showcase their work!" **Architect and Interior Designer and Former IIID BRC Chairperson Leena Kumar**

"A refreshingly new look and layout. Excellent reading in terms of visuals and matter. Kudos to the team." **Architect Ranjit Satish Naik**

"A great initiative! Look forward to this journal being an interesting medium to deliberate design more critically within the region." **Architect Vikrant Chandragiri**

"A unique collaboration. A connect within the community like Antarya was much needed." **Architect Hamsini Murali**

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Tushar Vasudevan



Jaikrishna



Kavitha Sastry

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SWAROSKI DAZZLES IN MILAN 14

Tord Boontje, Stephen Burks and Todd Bracher come together to showcase their lighting designs for Swarovski...



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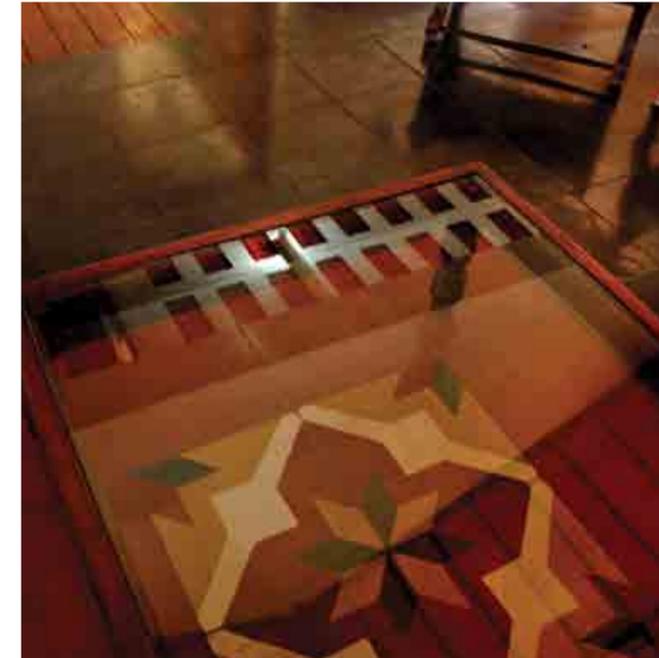
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GREEN SENSE

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TRANSFORM THROUGH LIGHTS

Thematic décor, nature of soft furnishings, colours used in the space all have their respective roles to play in an interior. Yet, the ambience of the interiors can be totally transformed by play of lights, the type, structure and positioning of the light fixtures, the mood they create.

Interestingly, before the nuances of artificial lighting was explored to perfection, buildings successfully played around natural lighting, the structures designed to let in not just sunlight or moonlight as the case may be, but also throw patterns and light pathways, where the drama created could dilute to insignificance the most exotic of artificial lighting that is currently being incorporated. Even the time of the day was determined by the mere play of lights in the interiors through the strategic vents created in the building.

More exotica came in at night with the play of diyas and lanterns which, contrasting with the darkness, lent a romantic note to the space lit. Elements lit with these traditional lights almost appeared divine against the yellow light with the darkness serving as the backdrop.

With development, not only has this natural form of light been translated into artificial manifestations, in a vain attempt to replicate the same, even the solar power that brought drama into the interiors of magnificently designed buildings, is now captured and stored to be used as power for artificial lighting.

TRANSFORM THROUGH LIGHTS

Lighting design needs to be a synthesis of human factors, research and technology, photometry and calculation. Focus should be on providing energy efficient, easy to maintain, minimally expensive fixtures that offer glare-free visibility for the task. Good lighting automatically produces comfort and efficiency in a space.



The Science of lighting

While lighting per se has the power to transform the aura of a room, set the mood or address effectively functional aspects through its task lighting, there is certainly a science behind the concept addressed and its manner of implementation.

Factors such as dimensions of the space, the materials featuring in the décor, colours and textures used on walls, the mood element to be addressed, functionality to be taken care of, the art and architectural elements of the space that need to be highlighted or worked around with, merit address before lighting for the space is designed. Added to this, aspects such as aspirations of the designer as well as end user require to be addressed.

In today's advanced lighting technology, lighting amply complements the architectural elements with creativity, playing with visuals and moods on a real scale, matching complex engineering with equally advanced skills. In short, lighting serves as a tool that gives life, shape and form to any structure that is unmatched by any building material or environment. In fact, when lighting is done with total understanding of the materials used in the structure, it creates a visual impact that goes beyond normal perception.

An important aspect in lighting design should be to enhance and direct the light output, making it easy to install as well as be corrosion resistant while addressing the aesthetics. Lighting design needs to be a synthesis of human factors, research and technology, photometry and calculation. Focus should be on providing energy efficient, easy to maintain, minimally expensive fixtures that offer glare-free visibility for the task. Good lighting automatically produces comfort and efficiency in a space.

Essentially, the lighting concept needs to be a part of the initial visualisation of the space and not featured as an afterthought. It should be an evolution from the consideration of characteristics such as the separation of spaces and tasks requiring focus, the different methods possible to create drama through the lighting of the space while ensuring it is not monotonous or glaring, causing discomfort. Facets such as creating dynamism in the play of lights to suit day light as well as cater to different moods, placing dimmers and occupational sensors to achieve desired results are equally important.

Since implementing the run of the mill lighting features can downplay the nature of work carried, bringing in individuality and creativity finds a key space in final execution.



Individuality can be in the form of custom made fittings or novel representation of a lighting effect to address a specific mood or functionality. Here, keeping pace with global trends in light sources and luminaires helps.

Backlighting

A popular mode of lighting used to create a theme, mood or even address functionality is indirect lighting, often in the form of backlighting. The surface used for letting the light through can be glass, crystal, fabric, acrylic or natural stone. The final choice of the material is dependent on the language spoken by the space.

Here, the light bulbs feature behind the material surface with care taken not to leave

gaps between two bulbs where a dark patch would be reflected. The idea is to ensure a seamless flow of light penetrating the material from underneath and diffusing it into the rest of the space.

Create Drama

Drama is best created through play of shadows where darkness is mingled with light. The presence of a multi-layered lighting system ranging from floor lamps, table lamps, wall or ceiling lighting allows different moods to be registered, accentuating the dramatic display of lighting.

Bring in dynamism

This is best brought out by effecting continuous change such as creating a feeling

of movement through automation and colour mixing techniques. A media wall beaming images in motion would bring in dynamism. Yet, these contraptions generate heat and hence they would essentially need to be teamed up with a back cooling system to prevent their breakdown.

Avoid Monotony

It is best avoided if the light fixtures are tuned in to cater to the architectural and design sensitivities of the space. Lighting features installed to merely make a statement but do not conform to the nature, functionality of the décor would soon wear out of their novelty, becoming monotonous over time. The ideal lighting feature would be one that is subtle and complementing without making a loud statement.



Photos by Mahesh Chadaga at IKEA Store, Dubai.



Architect **Rohini Mani** of **R Mani & Associates** believes in understanding the finer concepts involved in lighting, addressing the elements that transform the ambience through a crafty play of light, keeping in perspective the functional facets. Her aesthetically lit interiors showcase not just exquisite as well as unconventional light fixtures that are customised to suit the relevant space, the creative lighting feature also evokes a sense of mystic combined with beauty.

ADDRESSING THE NUANCES OF LIGHTING



Left: The Beckett Rankine corporate office in Mumbai shows the linear lighting feature creating a wall-wash and accentuating the triangular nature of the space. The cove lighting in the false ceiling diffuses the light into the rest of the interiors while forming a floating effect on the ceiling.

Below: The Lakme Salon showcased here is a combination of glamour, mood and functionality, brought out keeping in perspective the budget assigned. Displaying stunning creativity, the Salon incorporates extensive back lighting in glass, on both the ceiling and walls, integrating and diffusing the play of light on the interiors. The placement of the light fixtures as well as the type of fixtures opted are carefully done to address functionality of each space.



Left & Middle Left: The administrative block of Hindustan Unilever in Kandla has its façade spectacularly lit, the expanse of light spreading over to the exteriors, creating a stunning visual effect. The interiors see a backlit glass ceiling displaying the company's vitality symbols while the spot lighting on the red wall and arrestingly lit exteriors seen through the glass wall leads the eye outwards, drawing attention to the different colours accentuated by the lights.



Architect **Tushar Vasudevan** of **Ochre Architects** is a designer who firmly believes in not stating the obvious but letting indirect elements bring out the intent. His designs per se are not only novel and aesthetic but are also subtle yet powerful in representation which can prove to be breath-taking. His concept of lighting is not further from this inclination, transforming the ambience of the interiors in a restrained yet spectacular manner.

INNOVATING THROUGH LIGHTING



The Dhanalakshmi residence displays lighting elements in its interiors that are both novel yet subtle, transforming the ambience of the décor. The sleeping area in the bedroom is backlit with onyx where a strip of white light on the exteriors of the stone diffuses a subdued light into the interiors. This is complemented by a matching strip of backlighting in onyx on the floor and the television cabinet in the lobby area.



The formal living area again displays a subdued yet thematic lighting feature where the rectangular light fixtures on the ceiling are extended to the shelves below, serving as functional as well as lighting features.



The living area encompassing the library incorporates both novelty and aesthetics in lighting, with the diagonal library shelf turned into a lighting element with a spectacular play of patterns on the stone topped coffee table and adjoining column. The exotic patterns are further complemented by the subtle lighting displayed by the exquisitely designed chandelier, dropping into the interiors with all its delicate appeal.



Architect **Jaikrishna** of **Centimetre displays** a fine manner of usage of lights to bring out the theme and functionality of the space. His inclination towards indirect and diffused mood lighting is amply evident in the projects showcased here, eliciting an ambience that speaks volumes on its theme and functionality.



Architect **Kavitha Sastry** of **K S Designs** brings in the element of glamour and drama into the interiors with a skillful play of lighting, making the lighting elements evoke the kind of ambience desired. Her penchant for leaning towards exotic light fixtures and lighting elements is evident in her choice of lighting, lending art and exotica into the interior while the deft play of indirect lighting totally transforms the mood.

SPEAKING THROUGH LIGHTS



Top: The restaurant Vanani incorporates a jungle theme and the décor is accordingly woody with a sprinkling of caves and birds. The lighting here is chiefly indirect, lending the effect of sunlight seeping in through the thick trees. Indirect lighting is seen at the base of the tree trunks and caves too, with the light filtering in through the gaps and diffusing on to the surface, creating a spectacular effect on the ambience. While white as well as yellow lights have been used to evoke different effects, the path into the dining area has been exquisitely laid out using LED rope lights which incidentally lay concealed beneath the pebbles.

Top Left: The corporate cafeteria of a fertiliser company showcased here is also used for making presentations. This double function of the space, as a presentation centre and a place to relax is effectively brought out in the manner of lighting used. While the ceiling captures the design element of a sunflower to lend freshness and connect to the product of the company, the cylindrical lighting fixtures come with dimmers to accommodate differential lighting requirements.

Bottom Left: Simulation of sunlight is brought in through backlit glass fixtures on the wall while the diffused light from the ceiling throws patterns on to the walls. White light has been predominantly used to accentuate the play of colours in the décor.



ALLURE THROUGH LUSTRE



Top: This Italian restaurant Chianti showcases exotic lighting that is reminiscent of the place from where the famous Chianti wine originates. The exquisite red crystal candle light chandelier set against the backdrop of an exposed brick wall, not only creates a quaint Italian tavern ambience, but is also coloured red to conform with the famous red wine.

Top Left & Bottom Left: The residence pictured here incorporates a stunning backlit glass and wood panel highlighting the television deck as well as serving as an accent to the formal living area. The diffused light emanating from the backlit glass is amply complemented by the very creative and artistic handmade silk fabric floor lamp. Not only do these serve as excellent showpieces in the décor, but when lit, set the right mood and throw patterns that add drama to the space.





SWAROVSKI DAZZLES IN MILAN



Tord Boontje

Stephen Burks

Todd Bracher



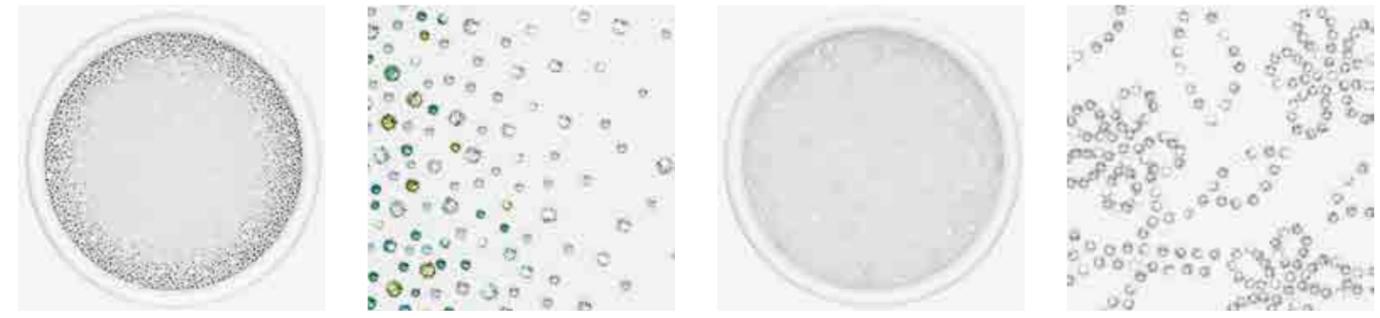
Euroluce 2013 saw top designers **Tord Boontje, Stephen Burks and Todd Bracher** come together to showcase their lighting designs for Swarovski. Not surprisingly, their innovative vision and talent radiated through every design showcased. The sheer range displayed in Swarovski's second collection of Lighting Centrepieces captures a broad spectrum of styles.

Offering a variety of forms, colours and sizes, Swarovski Lighting Centrepieces showcase peerless technology and intelligent design, and fall effortlessly into the next generation of creative lighting solutions. The sleek glamour of the designs harness the natural symbiosis of crystal and light to evoke emotion and create unforgettable moods in residential, commercial and public spaces.



Stellar Doma by Tord Boontje

Stellar Doma methodically balances the emotional power of crystal with technologically advanced form and function. The domed silhouette inspired by the night sky illuminates bursts of decorative patterns, evoking wonder with thousands of carefully hand placed crystals. Boontje uses recyclable material combined with dimmable LED technology, making it environment friendly.



Designs are available through our Authorized Lighting Partner:
 Bangalore: ARA, Defa lighting Solutions Pvt. Ltd., # 4, King Street, Richmond Town, Pin: 560025
 T: +91 80 41511581 | E: chandrika@defasolutions.com

DropLit and LightSky by Stephen Burks

Offered in a variety of configurations, DropLit's smooth contours of silicone are explicitly juxtaposed by luminous precision-cut crystal. In DropLit, Burks challenges silicone, an unprecedented material of textural flexibility, to take distinctive form while the crystals serve as functional elements translating dimmable light into glamorous luminosity.

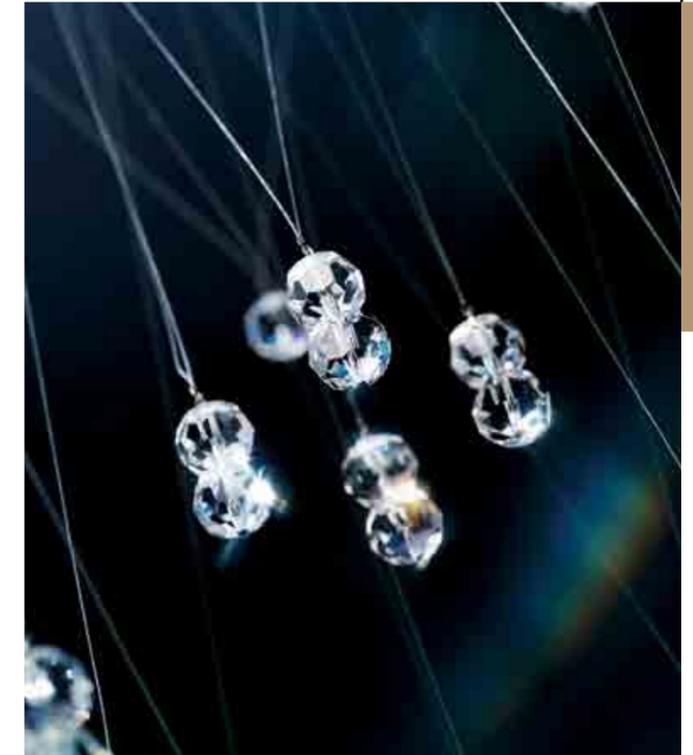


LightSky's illumination beams through brightly infused crystal, echoing into the spatial centre. Apt for an urban environment, its powerful metal frame yields an industrial design of geometric influence. Exquisite lighting effects from the LEDs are emitted through innovative crystal lenses to converge on a captivating crystal pendulum. The pendulum evokes an infinite array of reflections, provoking a bold layer of light against shadow.



Enlace by Todd Bracher

Bracher releases armature, light and crystal in an organic free-flowing silhouette in Enlace. Crystal strands are woven to fluidly interconnect, sculpting a structured patterned form, making Enlace appear to float in air, lending a feeling of tranquillity.



SPECIAL FEATURE

SPECIAL FEATURE

COVER STORY

Fenestri

A modern contrast to the classical lantern, the asymmetrical façade of Fenestri exposes brilliantly faceted crystal-lined panes, showcasing the harmonious relationship of light and crystal. Its sublime openings further offer an enchanting glimpse into a mystical interior while the glittering Swarovski Crystal Rocks offer a vibrant display of colours.



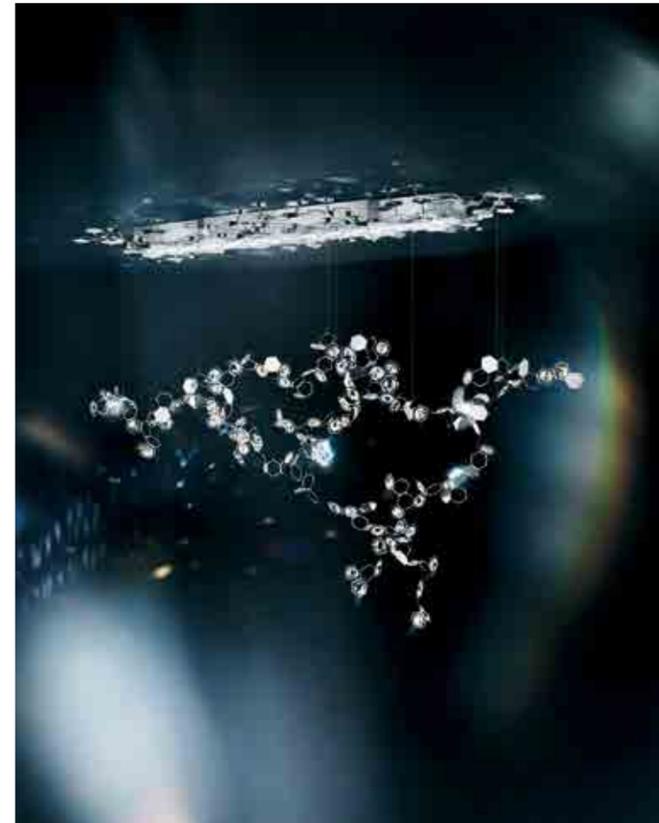
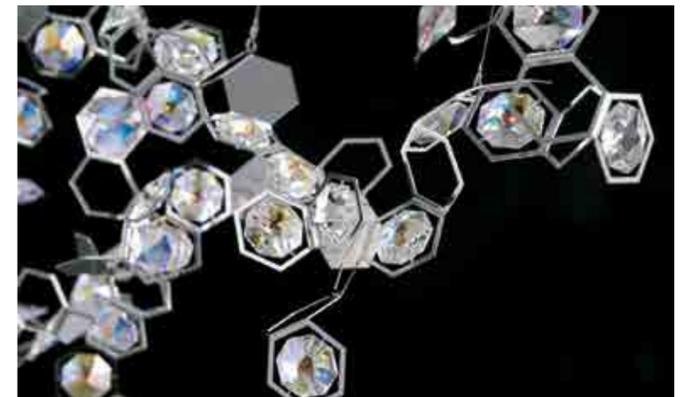
Candella

The defining element in the design of Candella is a non-flickering Swarovski engineered LED Crystal Candle, a first in the market place that also offers significant energy efficiency. Arising from a dynamic curvilinear framework delicately banded with crystal, the streamlined candles bridge the gap between future and past. The 'flame' of the candle here is crystal while the light source is placed inside the candle. With its dimming capabilities, it stimulates different light concentrations.



Crystalon

This is an inspiration from an endless strand of crystal DNA. Illuminated with LED technology, Crystalon explodes in an asymmetrical pattern of hexagons positioned at various angles. Be it open, solid or filled with octagon-shaped crystal, the hexagons cast multiple reflections across the space.





PERCHED ON 26000 FEET

Architect B H Rathi

The first thing he uttered to me on meeting him was “Did you know I was a rowdy?” Taken aback I wondered aloud why and how he slotted himself into that segment. Grinning, he pointed to a scar on his forehead and another hidden on the back of his head. “Received these during my innumerable skirmishes.” What then was a self-confessed past rowdy doing as an acclaimed master architect, I persisted. And then the saga began.



Meet Architect B H Rathi, Principal Architect, Rathi Associates, known fondly as Nandu to his friends and associates, a man whose master strokes are nothing short of legendary, striding the architectural world like a colossus. Son of a farmer, “brought up by my grandparents with money perennially in short supply” Rathi certainly journeyed through life the hard way, unafraid to stand up for his principles, living according to his conscience irrespective of what the circumstances were.

Any who crossed his path, ruffled his principles certainly had a hard surprise waiting. Fearless in making his statement, be it in a fight or later in exploring the myriad paths of his design world, Rathi had his feet firmly planted on four planks in life, viz, hard work, commitment, dedication and punctuality.

Interestingly, architecture was a choice by a play of fate, the result of his failure to get a seat in other engineering courses. Rathi, who likes

to paint, play the keyboard and write poetry in his free time, had been exposed to art from childhood, being the grandson of a bill-board painter and this incidentally fetched him his seat in architecture.

A recipient of multiple awards in India and abroad including the Life Time Achievement Award from Indian Institute of Interior Designers, he has lectured in a number of design schools in India and abroad besides having founded his own design institute, Rathi Learning Space-School of Interior Design in year 2008.

Given his view that architecture is nothing but art in the form of buildings, his designs have evolved around massing, volumes, juxtaposition of spaces and objects, with a high degree of sensitivity to natural surroundings and specifications of the location. His projects Zydex Industries and Akzo Nobel are classic examples of reduction in electrical and air-conditioning loads purely through definition of the building.



Meadows residence in Bangalore. The interiors here flow so smoothly into various functional spaces without demarcations that the only definition of individual spaces is the furniture and the different levels in various sections of the room.

This smooth flow is taken outdoors too with merely glass walls serving as barricades. Interestingly, even bedrooms in the residence have glass walls demarcating internal spaces. When surprised and queried on the functionality being impacted, he replied with a chuckle, "What are blinds for? When privacy is solicited these can be drawn."

Interestingly, Rathi prefers a bad site to a good one as it "allows greater play of creativity in design." Thus, in the Kanakapura residence, the huge boulders encountered on the site were retained and the structure planned around them. "Some of the boulders were as large as 8 feet", he says, adding "these were fused into the structure, featuring in the bedrooms, living room, bathroom."

If his leaning is towards contemporary style, it does not preclude his designs taking a classical style once in a while. The Jaisalmar hospital is a case in point. "Built in the heritage city, the hospital had to reflect the classical contours in design." The result was a stunning piece of architecture that looked more like a palace than a city hospital. Arches, domes, *jaalis* representing Rajasthani style of architecture find their place in plenty. Currently he is working on another project that is totally classical in representation.

Interestingly, his style of design is not one that focuses on complications but simple yet effective lines that make an astounding statement because of their manner of representation. Given his leaning towards contemporary style, there are more straight lines than arches and domes. Yet, the detailing of layout, the deft play of spaces emerge as a masterpiece par excellence.

The Vadodara residence is a case in point. The two storied contemporary styled house showcases a large horizontal expanse where the sloped roof extends on to the deck of the pool. Stunning in its representation, the simple lines of the residence have been so craftily handled that the contours of the building blend seamlessly with the site.

Incidentally, not only has the structure of the building been cunningly handled, every room in the residence opens on to the outdoors, a reflection of his strong inclination towards courtyards which he tries to incorporate into most of his buildings.

A point worth noting here is Rathi's penchant for working with materials that are not exotic or expensive to wear a designer tag, yet their sheer representation manages to turn them into arresting focal points. Says Rathi, "cut the cost, yet bring in the aesthetics, like bringing in the stars into your room."

His leaning towards free flowing spaces, evident not only in the interiors but also flows into the outdoors, is spectacularly showcased in the Palm

His genius in design is evident not just in the way massing and proportions of the building are done but also the skillful manner in which he handles the internal spaces, structuring them to lend the feel of an expanse of space while cutting heavily down on wastage. The design of Akzo Nobel reflects just this, where the original plan had pathways extending to over 3000 Sq feet while the same came down to a mere 800 Sq feet after Rathi stepped in with his master strokes.

His interior spaces reflect the same leaning towards contemporary style though Rathi believes in "accentuating the colours of the interiors through artefacts and other design elements that are set predominantly against a white background." Thus, the décor would display one focal point, one artwork, the colours brought in as accents in a subdued space.

Wood does find its place in his décor though again it is subtle in its presence. His interiors showcase out of the box designs where run of the mill variety are shown the door. Thus, the bedroom is more likely to have a cantilevered bed than one that is lavish and earthbound.

Sums up Rathi, "There are always multiple solutions to address each problem and this extends to design too where the structure can be viewed and designed from varied angles. However, it is important not to think and design on conventional lines but look beyond open perception. Before designing, the three questions of why, how and where need to be answered to make the end product different and unique." Certainly his structures and interiors have asked and answered these questions. He is not perched on 26000 feet for nothing.



SARVESH & MADHUMITHA SRINIVASAN

Here is a young couple who have set out together not just in life but in the world of design too, making a significant impact in the short time that they have occupied the space and proving beyond doubt their potential as a fine pair of emerging architects. Their focus being on “responsible aesthetics”, Madumitha and Sarvesh, soon after graduating from the prestigious RV College of Architecture, started their own design firm which they rightly called Thinc Design, reflecting their motto of looking beyond the obvious, the perceptible.



Godrej



Hub Montessori



Hub Montessori



Sandipani



Sandipani

PHILOSOPHY OF SUSTAINABILITY

Having interned in Auroville during the final year of their graduation, both had the opportunity to view and understand design not just from multiple angles but also from a practical and sustainable sense where the designs can be totally simple and responsible, yet pack in the spectacular in concept. Their stint in Auroville proved to be a great influence on their thinking and conceptualisation in the later years.

Given their philosophy of sustainability, their very first project was the GEAR International School which served as a fertile ground to exercise their creativity over 60,000 Sq feet of structure. Athangudi tiles, stabilised mud blocks, filler slab ceiling, green spaces, plenty of natural light and ventilation through incorporation of skylights, interactive spaces between classrooms in the form of huge corridors and courtyards, are some of the features of their structure, proving to be not just sustainable in materials used and design incorporated but also deftly addressing the functionality element of the building.

The design also takes on the elements sought after by the specific occupants of the respective sections, thus offering the play of strong colours in the Montessori section with the large play of arches and activity oriented spaces further assisting their free movement. Likewise, a large canopy structure provides the ideal place for activities such as dance, yoga, providing the shelter yet offering the feel of being outdoors.

Their penchant for sustainability and reusability takes active form in their project GEM Plus-Tulip which is a Montessori school. Here materials used are ones that can be taken out and reused. Thus, steel rafters covered at the first level with translucent honey combed acrylic sheets and topped up with bamboo to let in light and air, form the ceiling. Walls display stabilised mud blocks and green roofs, sinks with an open trail of water drain into a green patch while waste wood from discarded container packages aesthetically adorn the gates.

Besides the play of different textures like mud plaster, cement plastered walls, wood and steel with the Sadarahalli stone serving as a demarcating element, innovative features like using shutters of cabinets structured as marker board to facilitate scribbling, have also been incorporated. The bathrooms are likewise toned down to suit young occupants, with the closets and basins too suitably structured.

The villa project “Sandipani”, spanning 6000 Sq feet of built-up area, incorporates the concept of two separate buildings fused in seamlessly through an attractive courtyard. Here, the informal and formal spaces are segregated while sustainable elements like stabilised mud blocks, exposed slabs, wood portrayed in a different concept, find their way into the structure.

The interiors are designed to let in plenty of light and ventilation while the DEWATS technique of treating waste water naturally without using electricity has been incorporated to cater to the flushing and garden requirements.

The design style here displays both traditional and contemporary influences, with a verandah and Kerala style wooden columns featuring under the porch before leading to more formal spaces. A sloped green roof covers the courtyard, giving the illusion of connecting the two individual structures. While a sunken garden leading further to the basement features under the courtyard, the dining area with its collapsible doors opens on to this green space, lending the feel of the interiors extending seamlessly into the outdoors.

The interiors further pack in innovative designs, with the master bedroom fusing in a glass ceiling over the bed to lend the feel of sleeping under the stars, while the guest bedroom has a glass wall that has a picturesque fabric sandwiched between, inspired from the traditional art of *pichwais*.

The interiors done in another apartment showcases further ways of sustainable options that can be incorporated. Recycled materials, old cabinets made into new, antique cots, chairs, trunks, old Chettinad sari borders serving as frames for mirrors, are some of the elements that prevail, bringing in an old world charm into a straight lined décor.



Tulio



EKTA RAHEJA

She is barely out of college, belonging to the 2011-12 batch that graduated from the prestigious RV College of Architecture. Yet she has branched out on her own into the world of design, having successfully completed her first project of renovating a 21 year old house. Meet Architect Ekta Raheja, of 'Studio Ekko', who was ranked within the top 10 in her class and is winner of Proactis Award 2011-2012 for best performance in architectural design in fifth year B.Arch, RVCA. Incidentally, Ekta was also part of the NIASA (National Institute of Advanced Studies in Architecture) thesis competition securing a place in the top 10 from the south zone of India.



Thesis - Exhibition Centre



Thesis - Museum



Raheja Residence

ECHOING RELEVANCE OF DESIGN

Her thesis project Textile Museum and Exhibition Centre in Mumbai involved the redevelopment of one of the dyeing mills in Mumbai where it was required to revive it as a space to celebrate the lost textile culture of the city. Revive on these lines, she definitely did, using the chimney standing on the site as a reminder of the past heritage and connecting that with the "black box" which is the museum, where the black box draws a parallel to the Chawls of Mumbai. The North light trusses on the roof further serve as a reminder of the industrial character of the mill.

The 21 year old house that came up for renovation and proved to be Ekta's first project, was essentially an old contemporary house with the quality of the structure requiring to be upgraded. Ekta was thus faced with the challenge of not only renovating an existing structure with all the limitations arising from its design but also charged with the task of strengthening the building and making it habitable.

Ekta did just that, starting first with bringing in a blend of the old and new, retaining the contemporary theme while introducing an element of tradition in the form of old stone temple pillars with wooden cornices. A large set of French windows were incorporated to open on to a clear back space where a newly added garden complemented the existing garden.

The French windows also address the lack of natural light in the residence, faced as it is with closed spaces on three sides. The introduction of a small water body further lends freshness to the space. Plenty of colour through tiles has been brought in to lend vibrancy. The renovated structure interestingly sees no marble, granite but merely ceramic and vitrified tiles. The natural Cera stone which is an affordable option, finds its way into the entrance, extending a charming note to the porch.

While Mangalore tiles cover the roof extensively, the unwieldy master bedroom was brought under the chopping block, with a portion of it designed to address the sleeping quarter, demarcated deftly by a raised wooden floor while the ensuing sunken space was converted into a lounging space that opens on to a charming patio.

To reduce the vertical expanse, Ekta also structured the five levels of the house to occupy the vertical expanse of a two-storied building. Thus, the cleverly restructured split levels provide a

horizontal expanse to the space. The porch too was made grand by expanding the entrance.

Given the age of the house, free flowing space, not surprisingly, is absent. Ekta has tackled this too by opening the kitchen to the dining space where the dining table extends into the kitchen while large French windows open on to the courtyard, expanding further the fluid space.

Ekta is also working on two other interior design projects, one being a studio apartment where not only space is a constraint but the interior dimensions also pose a challenge for convenient placement of furniture. But, these challenges were successfully circumvented through skilful yet simple design elements. Thus, the cot was given an extra storage over the headboard to address the curved wall, while the odd shaped toilet space was made efficient by incorporating a towel cabinet beside the wash area. Here the counter slab was designed to incorporate a separate niche which could be used for towels.

Her other project is a penthouse with the twin terraces overlooking a spectacular expanse of green. Ekta has worked this view to her advantage by extending the living area to the balcony while the innumerable artefacts and antique pieces were deftly woven into the contemporary theme, offering a blend of the traditional into a straight lined décor.

Even odd items like an old boat were not dispensed with, giving it a creative appeal while addressing functionality by converting it into a unique display shelf. Thus, items like an ancient radio, a juke box, an old cd album, a collection of hats over the years, all find their space in her charming project.



Raheja Residence

SETTING THE CRITERIA
FOR LIGHTINGIN CONVERSATION WITH
KAPIL SURLAKAR

Architect Kapil Surlakar of Light@Work Design Consultants, based in Goa, firmly believes there is a science behind the concept of lighting, requiring the finer aspects such as dimensions of the space and its functionality to be addressed before coming up with the design elements. Speaking at length to Antarya, he drew attention to the lack of professional lighting design schools in the country and stressed on the need to provide education as well as increase awareness on the nuances of lighting.



Q. What elements need to be kept in mind while designing the lighting of a space?

There are different aspects of the space that need review before deciding how to light it. Primarily dimensions of a space as well as its function, be it residence, an office or a commercial space, needs to be defined. The architectural style of the space, the materials used, aspirations of the designer and end user are all important considerations based on which illumination is designed. Depending on the tasks to be performed, the mood or ambience to be created, lighting element would be task oriented, diffused, indirect, placed on floor, wall or ceiling. Besides these, materials used in the space need address. For instance, a glass wall would not reflect light but would allow it to seep out. Similarly, colours and textures used on walls have a strong bearing on the kind of lighting to be opted. The overall vision of the space like material used on walls, presence of art pieces and architectural

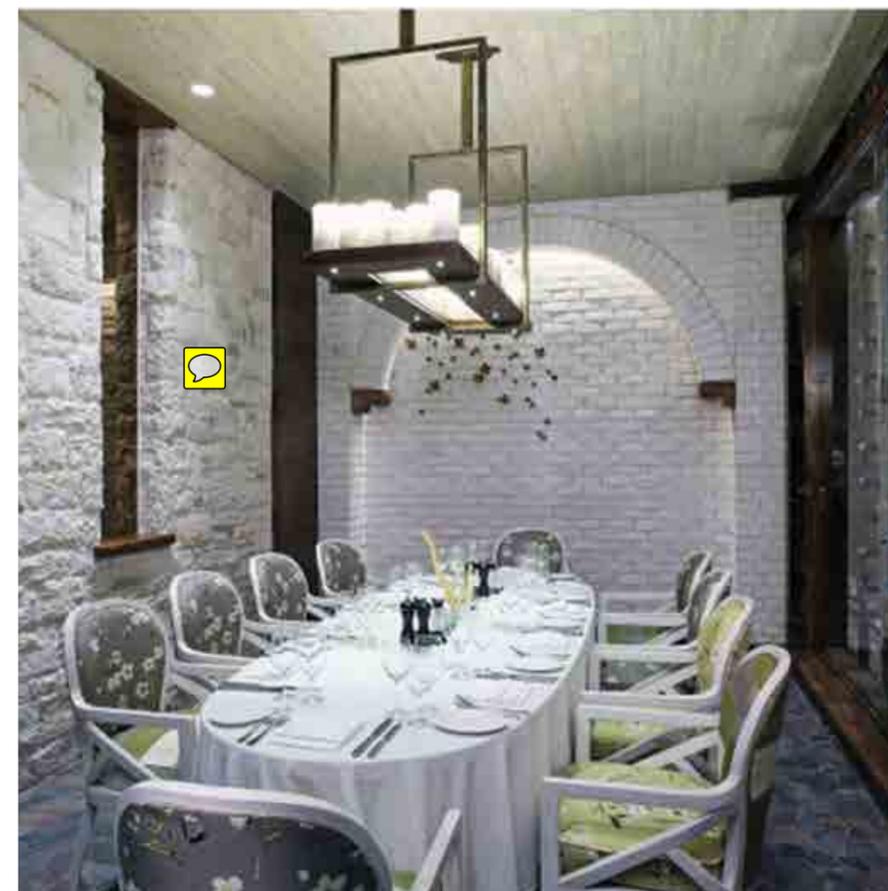
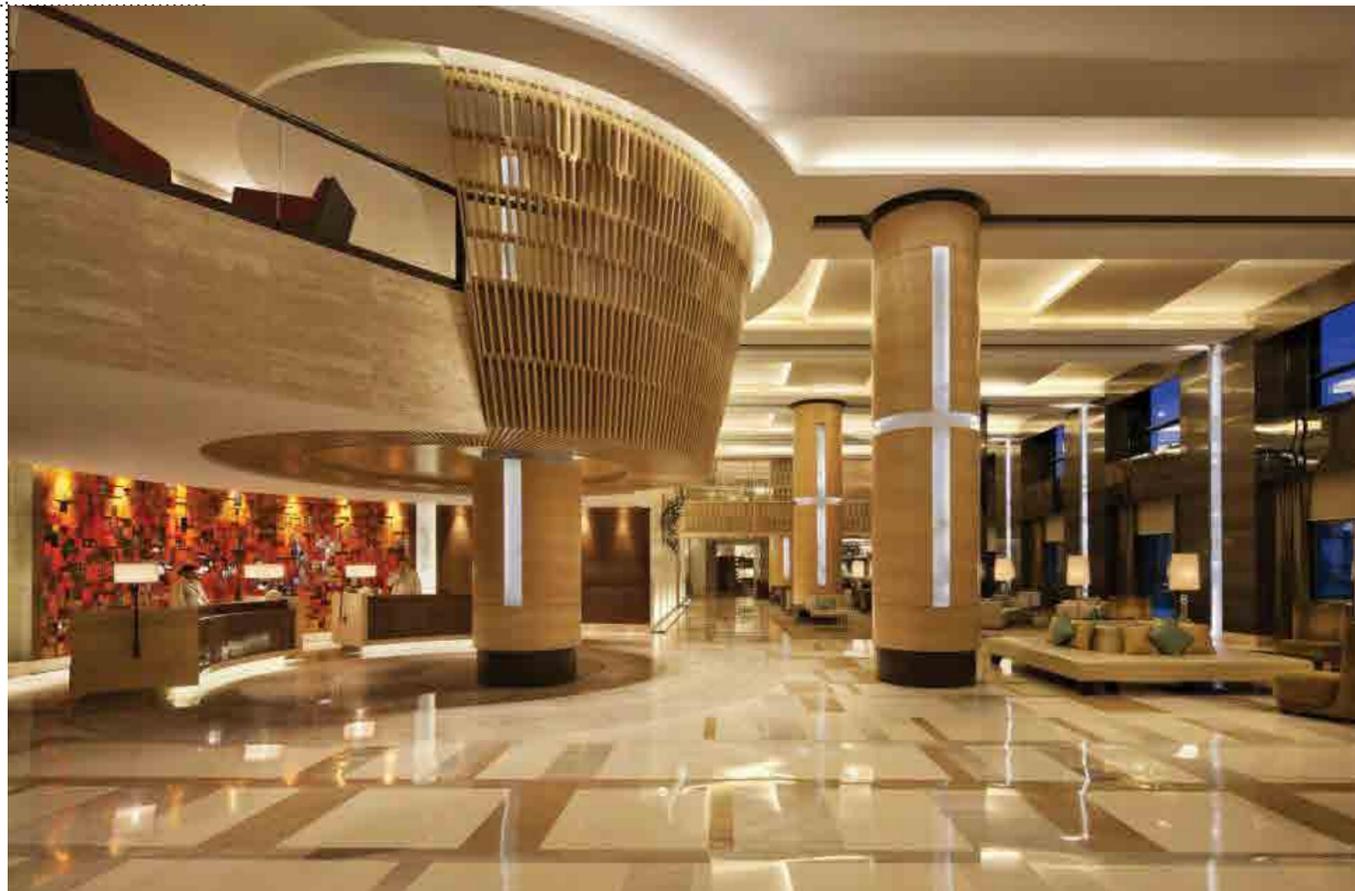
elements that need highlighting, are aspects that need address.

Q. What elements need to be considered for backlighting? What materials are best suited for it?

In backlighting, it is important that the source of lighting should not be evident but only its effect on the surface of the material. Achieving uniformity of illumination entails calculation of proper pitch of the lamps after selection of suitable lamp technology. To ensure uniform illumination, assessing the distance between the light source and material is very critical. The type of lighting used underneath will depend on the mood or colours preferred. But whatever be the lighting equipment chosen, accessibility to it is absolutely essential. The material used for backlighting can be varied, ranging from fabric, to glass, acrylic, natural stone, crystal, the choice depending on the nature and language of the space design.

Q. How can lighting transform the mood of the space as well as create drama within?

A multi-layered lighting system is best suited to create the right mood depending on the functionality of the space. The technical luminaires as well as decorative options ranging from table lamps, floor lamps, pendants or wall sconce, must be used in various layers, besides being individually addressable. Ideally, these need to be connected to an Automation system that facilitates the creation of various different moods by the control of their illumination. Drama in a space is brought out through the play of shadows and it is important that the presence of darkness interspersed with light are used adroitly to create an impact. Interestingly, darkness is an important aspect of drama as it contrasts the play of light, enables the presence of dramatic shadows, accentuating the spaces that are illuminated in contrast to the spots that are not.



“INTERESTINGLY, DARKNESS IS AN IMPORTANT ASPECT OF DRAMA AS IT CONTRASTS THE PLAY OF LIGHT, ENABLES THE PRESENCE OF DRAMATIC SHADOWS, ACCENTUATING THE SPACES THAT ARE ILLUMINATED IN CONTRAST TO THE SPOTS THAT ARE NOT.”



Q. How do you bring in dynamism into the space and at the same time avoid monotony?

Dynamism is essentially brought in by the presence of a continuous change. Since we are working with light, it is essential to create a feeling of movement to enhance a perception of motion. The basic solutions would mean using LED technology or other Cold cathode or Fluorescent technology, with automation and colour mixing techniques to achieve the same. If well planned and the situation allows, a media wall can be used as a screen to beam images of motion, bringing about dynamism in the space. However the scale and frequency of this must be designed to suit the application. Monotony is best avoided by ensuring the lighting elements featured are not just contraptions to arrest attention but are aesthetic, designed to suit the architectural and interior design sensitivities of the place. Lighting elements installed to merely make a statement wear out fast as the novelty fades out. They need to be subtle and complementing in nature without making a loud statement.

Q. What are the current global trends in lighting?

Current trend veers strongly towards LED lighting but awareness on its characteristics is still lacking. LED offer various solutions but are not the best and only light source of the future as is made out strongly by the Manufacturing lobby. Every lamp technology has its characteristics which one has to understand before discarding or choosing the same for its application.

Q. Is lighting décor in India based out of informed choice? Are we in need of better exposure?

Unfortunately the lighting design in the country is not fully based on informed choice. Clients more often lean towards a particular lighting feature, the choice based out of desire rather than understanding the dimensions and drawbacks of a space. Some Architects and Interior designers well travelled and understanding lighting through their own efforts and self development, understand what they desire of a space, but are sometimes challenged due to limitations in understanding

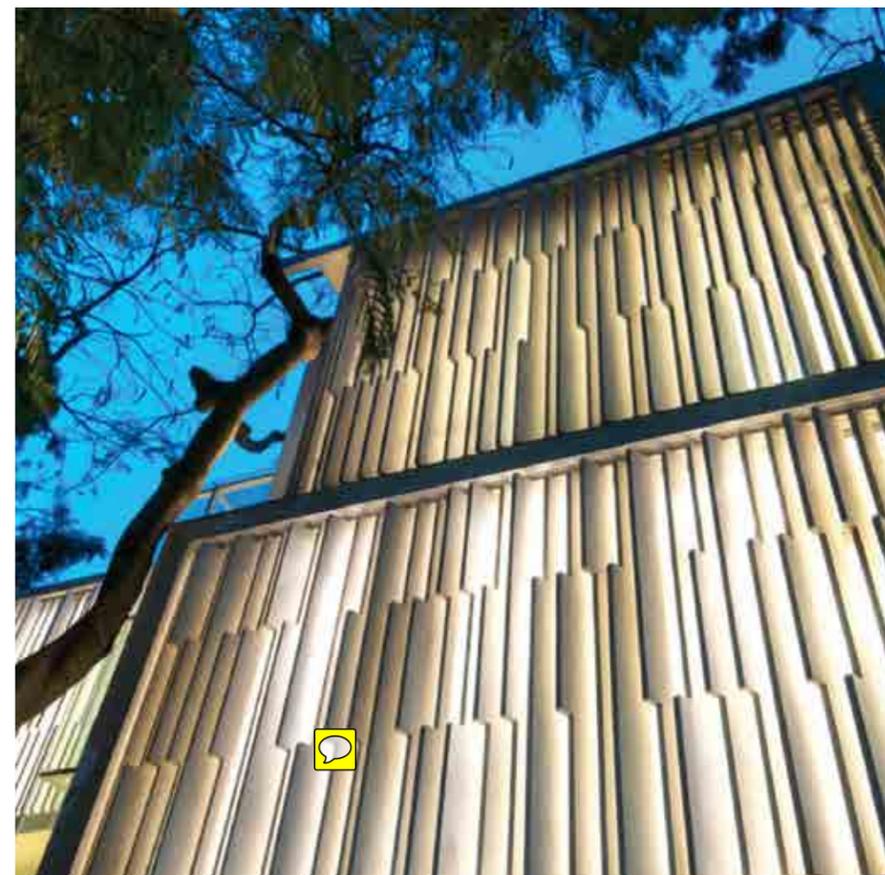
the suitable use of technology as well as product, to achieve the desired results. That is where qualified architectural lighting designer comes in.

There is a complete absence of formal Architectural lighting design schools in India, and this is a lacuna that needs to be filled in at the earliest. A formal Lighting design education at an undergraduate as well as a Postgraduate program would go a long way in creating the much sought after design professional today, armed with a sound knowledge of the subject.

IN CONVERSATION WITH VIMAL JAIN & SANDEEP J



“We need to humanise spaces, bringing in a sense of belonging to make the design effective and warm, say Vimal Jain and Sandeep J, Principal architects of Architecture Paradigm, while speaking about their out of the box concepts and design features. Both firmly affirm that design is not about following a trend but being sensitive to the space, where materials are used consciously to suit locational conditions. Speaking at length to Antarya, on how spaces to them are essentially an experience for people, they emphasised on the need for designs to evolve over time while retaining the warmth in engaging the occupants.”

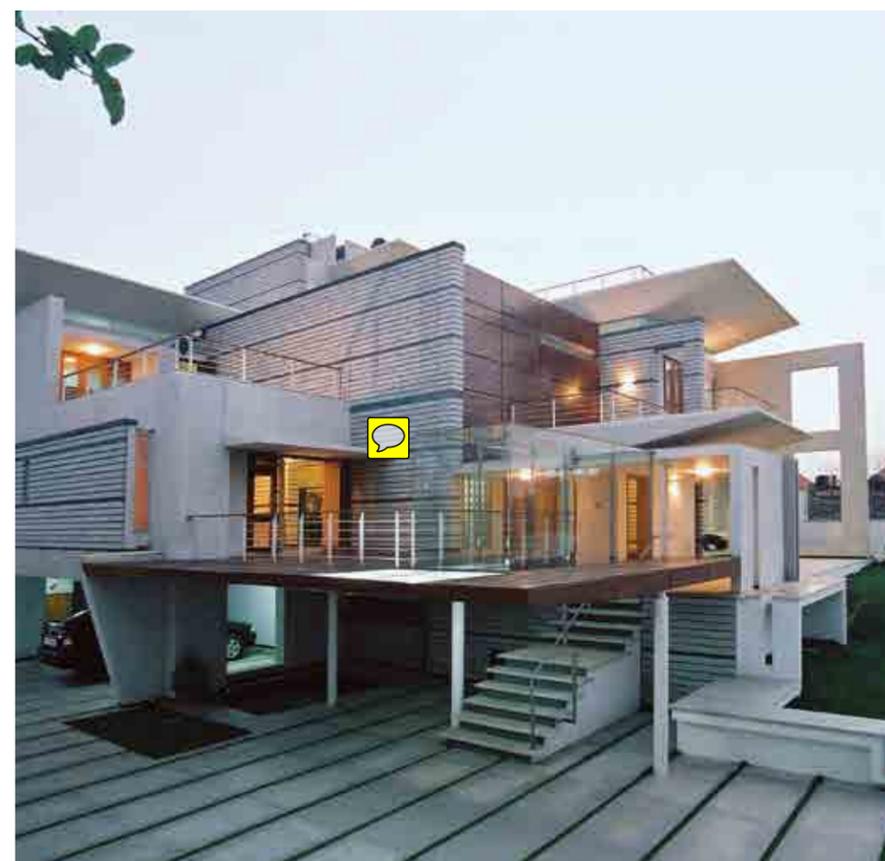


Q. Are the emerging trends in design too impractical, driven totally by technology rather than personal sensitivity to the space?

Design is about being sensitive and critical to the conditions we encounter. It is not about following a trend but interpreting these conditions to create spaces that celebrate life. It is important to humanise spaces where a sense of belonging is created, lending character and making it personal. With media today playing an expansive role, designs are more focused on creating a wave. While technology aids in evolution of design to bring in new forms that were not present earlier, marketability is unfortunately taking precedence over personal sensitivity to space.

Q. Does that mean emerging designs have lost their unique character?

Technology essentially aids in evolving new patterns in design besides teaching different ways of using material. While multiple possibilities are made feasible with use of technology, it should not be an explicit showcase of skill where personal relation to the space is sacrificed. The design should be adaptable where it relates to the occupants, where it is possible to celebrate life within that space. A design that addresses these elements would continue to retain its unique character.

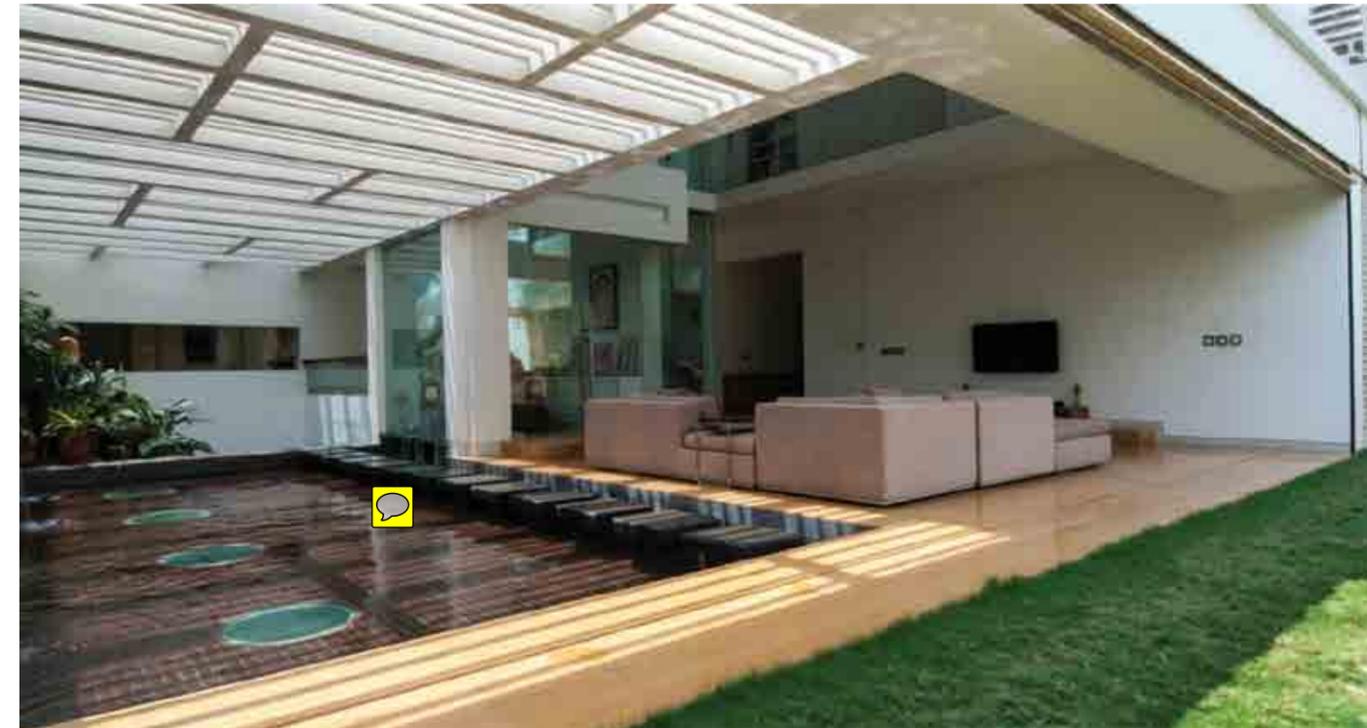
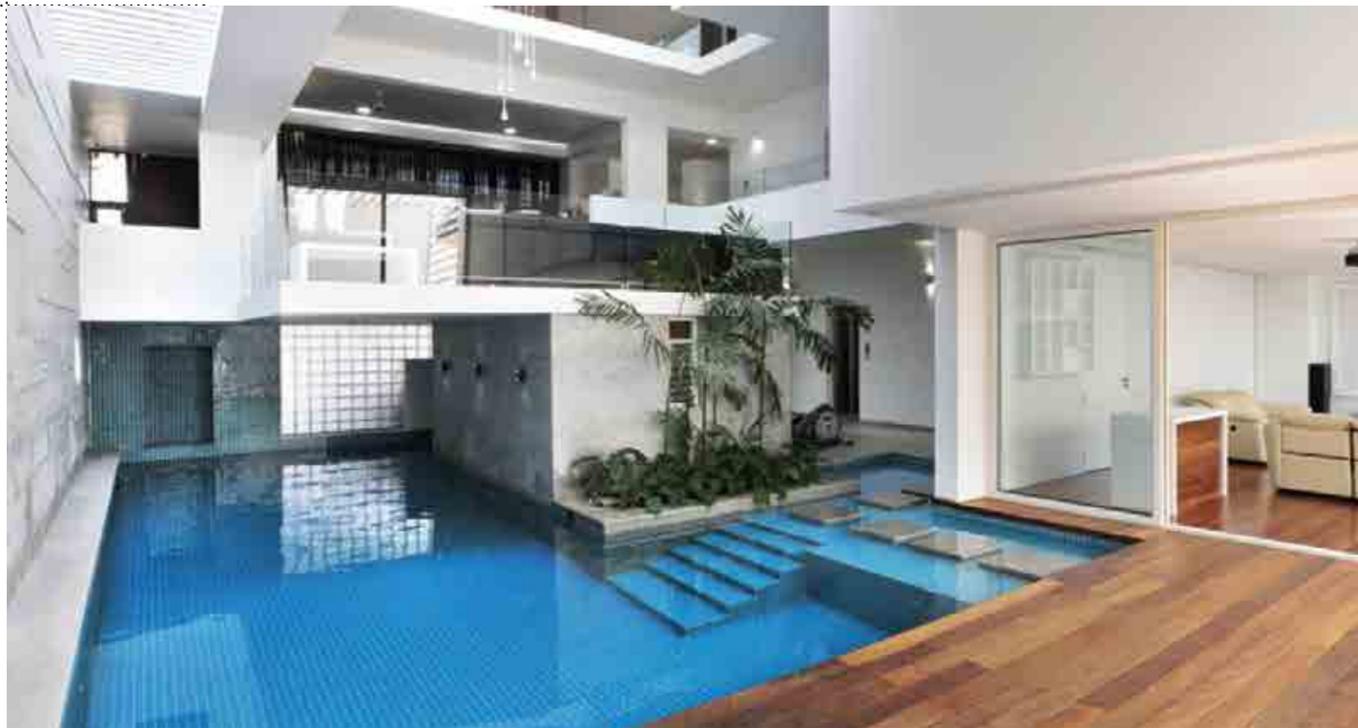


Q. Are the prevailing software tools preventing the exercise of individual thinking and creativity?

Technology per se is not something to be derided. It is an excellent tool serving as a vital resource in experimenting with new designs, aiding creativity, making possible exotic design patterns that were hitherto capable of only being visualised, but now taking a tangible form. However, technology should not cloud out individual creativity or personality. This is possible only if the tool of technology is used in the right manner.

Q. What in your view encompasses green architecture?

Being sensitive to environment and using materials and design that keep in focus this sensitivity to local conditions. Earlier, there needed to be no conscious effort to bring in this sensitivity as structures were erected using local materials and adapted to suit locational as well as lifestyle needs. Sensitivity to space was thus a matter that was taken for granted. But



“THE DESIGN SHOULD BE ADAPTABLE WHERE IT RELATES TO THE OCCUPANTS, WHERE IT IS POSSIBLE TO CELEBRATE LIFE WITHIN THAT SPACE”

with designs taking on a different connotation where the accent is on making a statement, often this sensitivity is given a backseat. Coupled with this, with green certifications improving marketability of buildings, there is now a leaning towards commodification of the sustainability feature. On the contrary, design, be it contemporary, stylish, needs to have local sensitivities built into its structure.

Q. Should design be timeless?

There is no timeless design. Design needs to be relevant to the times we live in. The occupants need to connect with it where the design and

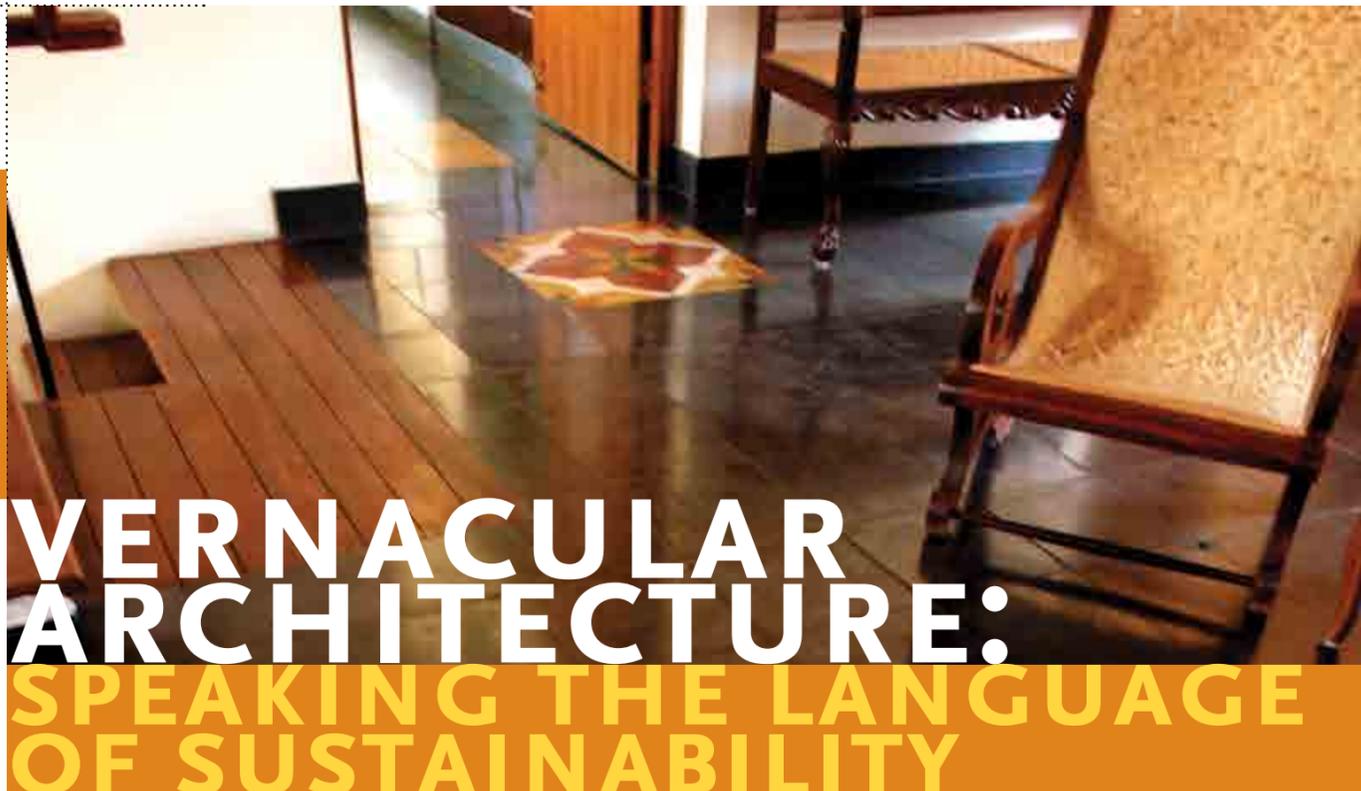
lifestyle blend effortlessly. Endurance and relevance of a design idea through time is what makes the idea or space timeless.

Q. What is the key to good design?

Being relevant and creating an experience that people can relate to without making an effort, packing in warmth and cheer which prompts the occupant to return time and again, these are some of the key elements to a good design. While progression is the key in architecture, spaces prompting their retention in memory long after vacating, are key elements that speak of a successful design.

Q. How popular are structures that fuse with nature?

Any structure that brings one closer to nature will definitely be popular. Essence of architecture lies in how well one negotiates with the conditions to bring about this aspect. Any material of natural origin retains its inherent unique character and weathers gracefully, connecting one automatically to nature. Yet, it is an individual choice that ultimately results in the choice of material, design and structure. Essentially, it is imagery that drives demand, with the choice invariably zeroing on one that is vision driven.



VERNACULAR ARCHITECTURE: SPEAKING THE LANGUAGE OF SUSTAINABILITY



Sustainability in construction has been a much debated topic. Questions such as what encompasses sustainability, does it pertain to use of only natural and locally available materials, does it address design elements that are in tune with locational requirements, or does it confine merely to fulfilling criteria laid by green rating certifications of buildings such as LEED? These are oft raised issues when the topic of sustainability is discussed.

Vernacular architecture has a special place not just in its structure using totally natural materials and addressing local conditions, but also in its striking design and aesthetics. Besides the use of natural materials and sensitivity to local conditions and requirements, the method of construction is invariably traditional, incorporating local practices. The use of random rubble stone, mud blocks are some of the examples of use of local skills and methods of construction.

Specialising in vernacular architecture is the Bangalore based firm Centre for Vernacular Architecture, founded by late R L Kumar. The firm, which also has its presence in Chennai, has come up with over 50 projects in the last decade, all displaying a spectacular play of laterite stone, exposed brick walls, random rubble stone walls, with an interplay of courtyards and water bodies that speak of an era bygone. Interestingly, a sizeable number of these structures have no columns or beams, as they are built on the lines of past buildings which did not incorporate RCC load bearing structures.

Says Architect Khalid Rehman of Centre for Vernacular Architecture, "Over the last decade, the popularity of vernacular architecture has increased, with people veering towards the traditional look as well as use of sustainable options. Surprisingly, even developers are now toying with the idea of opting for vernacular architecture in their gated developments."

According to Khalid, a factor that deters many from increasingly exercising this option of construction is the need for skilled labour as "structures such as the random rubble wall require special skills to pile the stones deftly so as to reduce the gaps between. These gaps further need to be skilfully filled in with

A tribute to an architect whose soul was design...

Late R L Kumar, Founder, Centre for Vernacular Architecture, literally lived and breathed the vernacular way. Though not a qualified architect, his passion for vernacular architecture saw him moving away from his profession of Chartered Accountancy to becoming a self-taught architect resulting in the founding of the Centre for Vernacular Architecture. His words were a constant source of inspiration for many students, architects, teachers and clients who were fortunate to interact with him.

Interestingly, Kumar, in pursuit of his passion, willingly worked on shoestring or almost non-existent budgets, his sole aim being to promote vernacular architecture. He studied from practical implementation of the projects, learning from masons and labour on-site. Showering tremendous respect and encouragement on the labour force for their skills, he constantly scoured the markets for skilled workers encompassing masonry, carpentry, stone workers and artists. In his opinion, a true architect was one who was willing to roll up his sleeves and be on site alongside the workers.

Being himself not a qualified architect, he insisted from his team not fancy degrees but an attitude that bode well for design, that spoke the vernacular language. Belonging totally to the old school, old world of thought that unmistakably adopted the vernacular colours, he scorned the modern way of life. Living his life on his own terms in the most unconventional way till the end, his solution to the modern ills was to "go back to the roots, live in a vernacular home adopting the lifestyle of your forefathers."





ambience. Being mud walls, they also eliminate the possibility of adding another floor. The roof too is light, being tiled, further suiting the hot weather conditions", adds Khalid. The mud walls essentially are constructed from a mixture of mud, sand and sawdust and shaped to the required form.

While mud walls and tiled roof serve as natural insulating materials against intense heat besides being a sustainable option, vernacular architecture also opts for relatively high ceilings, arches that lend themselves to free flowing spaces and in-built green courtyards complete with refreshing water bodies. The height of the ceiling and the free flowing spaces ensure plenty of natural light and ventilation, while the water bodies keep the interiors naturally cool.



smaller pieces of stone, a factor that requires experience and skill." Incidentally, random rubble stone, being stacked on top of each other, uses very little cement for binding, thus proving to be sustainable.

While the residences built by Centre for Vernacular Architecture predominantly use laterite stone, exposed brick and random rubble for walls, some of their farm house projects have also used mud walls which are very similar to the rural houses, emitting an authentic rural flavour to the structure.

"This type of building technique is highly labour intensive and specifically suitable for a rural

The presence of arches also eliminates the need for lintels, saving the quantum of steel used, the same way as elimination of columns and beams does. The arches or openings which can be segmental or semi-circular in shape, depending on the theme, or even flat, further enhance the special charm of the structure. To accentuate the charm, stone arches are resorted, where the stones are craftily held together without the binding material.

The roofs equally pack in character, charm and the green element, with most sporting tiled options supported by wooden or steel rafters depending on the budget. Interestingly, coconut wood too is used for the rafters, though "this

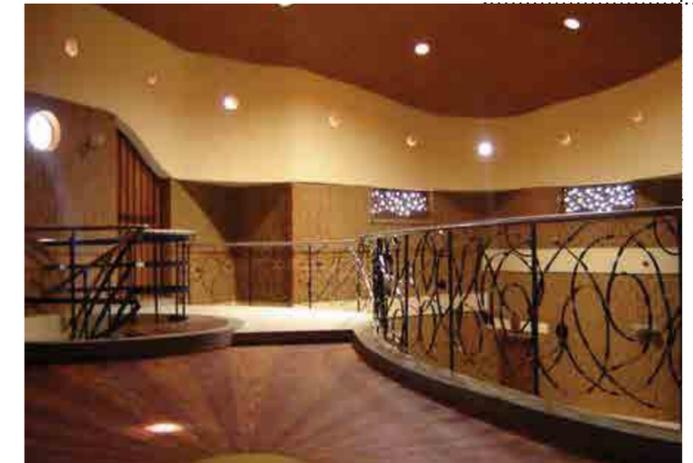
needs proper seasoning and treatment before use" says Khalid. Coconut wood is a cheaper wood option, yet strong when seasoned well. Filler slabs are the other option exercised for roofing. Here, using Laurie Baker technology, close to 30 per cent of concrete and steel is saved while keeping the interiors naturally cool through the filler material..

Flooring has equally traditional and sustainable options, with popular ones being Jaisalmar stone, Kota, slate, Andhra marble, granite, terracotta tiles and also the traditional Athangudi tiles in its colourful representation. Wood, if opted, is invariably natural plantation wood, again a sustainable option.

To enhance the aesthetics as well as increase the coolness of the interiors, the courtyards with their water bodies, which serve as the focal point of the interiors, are structured such that the entire house overlooks into the space, says Khalid. "The courtyard would be visible from the upper floors while the rooms at the lower level would be deftly built around it. This is easy to incorporate as predominantly, free flowing spaces are advocated in the design."

While large windows come to play in the structure to let the outdoors spill seamlessly into the interiors, plantation wood is predominantly used in their frames, with encouragement actively given for the sourcing of antique windows and doors which also add a unique character besides being sustainable. Thus, old wooden pillars, Karaikudi and Chettinad doors feature with stacked stone columns prevailing in plenty in the courtyards and porches.

The bathrooms too see a play of the traditional, with colourful oxide finish walls incorporating inlays featuring in the dry sections. The furnishings too, not surprisingly, sing the same tune of sustainability, with plenty of old wooden and antique pieces finding their way in, while the interiors are kept fairly clutter free.



A SUSTAINABLE ABODE

K JAISIM

The Humm word in the world of structures currently is Green Buildings, Eco-friendly Designs, Ethnic and so on; a combination of letters that signifies a desire to belong and market a popular palliative to the people. It also placates the authorities by stretching out a design that is more palatable for sanction as it wears the colours of green.

But what exactly does this green mean, encompass? Let us without much ado examine what it attempts to mean. Energy is a big word to the point that its consumption at times takes on criminal undertones. What I propose to do here is to make the reader sit up and think without bias, pause and pass observations.

A prime need that everyone faces is to have a home that is personal and warm, suiting a specific lifestyle. But how is this home to be designed, structured? Should it be energy efficient? And is an energy efficient structure an eco-friendly design satisfying green requirements? Or is it just about conserving energy?

Any space is composed of materials used in a fashion that they metamorphose the elements into not just structure that becomes the frame but also the walls and floors that mark and demark spaces in all the dimensions. In doing so the inherent value of such elements adds further value to every nook and corner of the built environment.

It is here that the selection and judicial use of these elements become of paramount importance. Optimisation would be the key to every building component that has played a part in realizing these spaces to perform to their maximum potential.

Great architecture does not observe the rules of caution. Safety and security means compromise on creativity and original interpretation. What a person seeks in a home is comfort. The point is how can this be attained while ensuring the structure is sustainable?

Location of the plot is dictated by many factors while the family has its own set of aspirations and dreams in making a home. First, your home should have ample light and ventilation. While the fresh clean air permeates the interiors, whatever be the size of the site, it is possible to bring in the green element.

Plastic greens and flowers are out. Imitation of any sort is the biggest insult to a structure that aims to be green. And the structure has to be efficient; you do not buy a bus when a car will suffice. There is a limit to safety, strength and sanity. If you build hundred percent of your site and then open your windows and doors on to the road or on to your neighbour – whom are you kidding? Yes, our building bye-laws are archaic.

Keeping it simple does not mean a bare space. We are a vibrant people with deep culture. That richness must be expressed. It is a myth that local materials mean cost effective and ethnic design. It is your design imagination and ability to innovate that is important and holds the key.

It is certainly difficult to realize such dream homes. The trials and tribulations are many. But they are worth their try. One needs patience and understanding. Let alone the Architects, to find builders who understand these values are rare and difficult to find.

Conclusion from the above scenario is obvious. The ability to choose wisely with freedom and adding value to all aspects of the built environment is paramount. Always attempt to add more than one value to any aspect, element, component or space and integrate them into a holistic realization. Here, it must be observed that the expression of the true nature of all elements is conditional. This will enhance the very nature of man's search for happiness and oneness with nature.

Structures that breathe these are not only nature hugging and warm to embrace, but also create a healthy environment. Ultimately, an efficient space is one where the young can grow with confidence and the elderly can relax with a sense of joy.



TECHNOLOGY HOLDS SWAY

BY RAJA ARJUN, CO-FOUNDER, DESIGN HEAD, AQB GROUP

Architecture for some of us has become a way of thinking - a discipline that represents the relationship between form and proportions, a manifestation of a concept in tangible form. Not surprisingly, emerging technologies in architecture are not confined to the boundaries of a building alone. For, it encompasses all activities that orbit the idea of a "building". The most exciting practices of today display an uncompromising ability to fuse the spirited with the inanimate, dynamic with the static and tangible with the intangible. Their ability to actually execute what is dreamt in their labs of creativity is mind boggling.

While software that help architects build and frame spaces virtually, almost instantly become viral throughout the practicing world, the challenge that most architects face is to get it built. Dearth in skilled labour is a huge setback for architects, especially for those practicing in developing countries. Some of the best minds in the world are working on solving this problem. New construction technologies grow on the belief that hand crafted, hand operated construction will soon be a thing of the past and in the future buildings will be printed with

machines run by computers. One such example is 'The beach house' built by MIT professor Larry Sass.

Sass' work was based on research in New Orleans, including meetings with local homeowners and documentation of houses throughout the Garden District, the French Quarter, Faubourg Marigny and the Lower Ninth Ward. The house is fabricated entirely of friction-fit components with tabs or slots for easy assembly, and the structure is put together solely with muscle and mallets, without any nails or screws or glue!

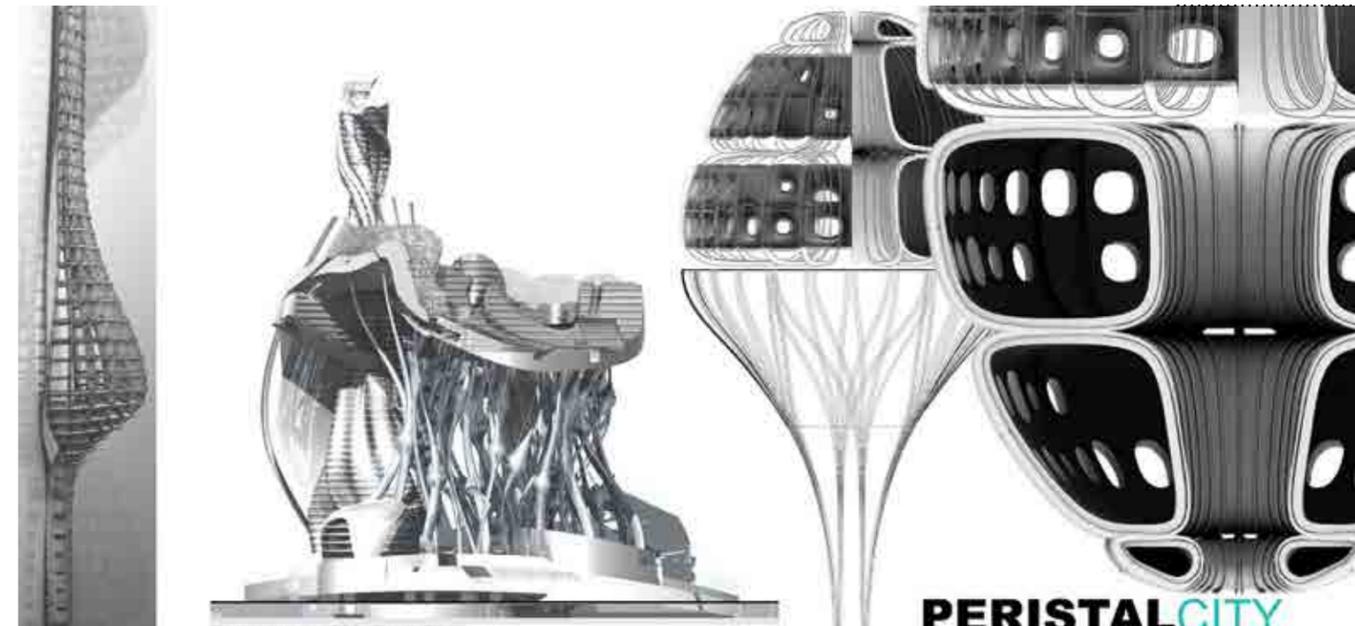
Another impressive feature of Sass' house is the use of mass-customized as well as mass-standardized components at scales ranging from details to major structural features so that the main body of the house, for example, employs a standardized structural shell while the porch can be customized at will.

The experiment successfully eliminates the need for scouting rare artisans to execute sensitive detailing. By openly embracing the information age and accepting its role in

architecture, Prof. Larry Sass has rekindled the romance of beautiful woodwork and made it viable again.

Needless to say computers are now a necessity to design buildings like 'the beach house'. They form the nervous system and the core of all architectural practices of today. Computing power single-handedly made an existing style called 'Deconstruction' an overnight sensation when Architect Gehry unveiled the Guggenheim museum in Bilbao to the world.

Gehry has been supersaturated into architecture magazines since the success of his first international sensation. Some of us hate the Guggenheim Bilbao even without visiting it. But most of us who do get a chance to experience the wondrous structure are invariably awed. The nearly 15 year old building was responsible for another successful firm of his, Gehry Tech. Their impressive software of recording points in a complex physical model with the help of a light pen and transferring it into a virtual 3 dimensional model helps decode the requirement of time and material



for the execution of the structure. Over the years the software has been refined to scan a concept physical model and completely sketch out spaces to use the generated structure with pre-programmed spacial requirements. The software is further being developed to help any architect design the 'Gehry' way. This gives new opportunity to re-imagine space with sculptural qualities and has paved the path to allow architects determine the design process. It is an apt example showcasing technology attempting to replace creativity.

Emerging technologies in architecture are often existing technologies which pass a lead-footed evolution phase and surface as new technology for the profession of design and construction. Bio-tech, nano-tech and information technology have forged interests to create the latest addition to this claim. An exciting new idea of building spaces have been propagated by scientists Martin Fischer, Drew Endy, Thomas Moore and Andrej Sorgo.

Here, the scientists have accomplished radical reductions of pollution and waste in construction, by adopting the concept of nano-to meter-scale building. The concept is not focused on the application of nano materials like nanosilica or carbon nanotubes, but a new technique in building, which unfolds from the nano into the meter range. It is based on

bionanorobots, producing building materials using carbon extracted from CO2 in the air. Criteria and requirements regarding relevant technologies are defined and compared to the current research in the fields of bioengineering, nanorobotics, and characteristics and production of carbon nanotubes.

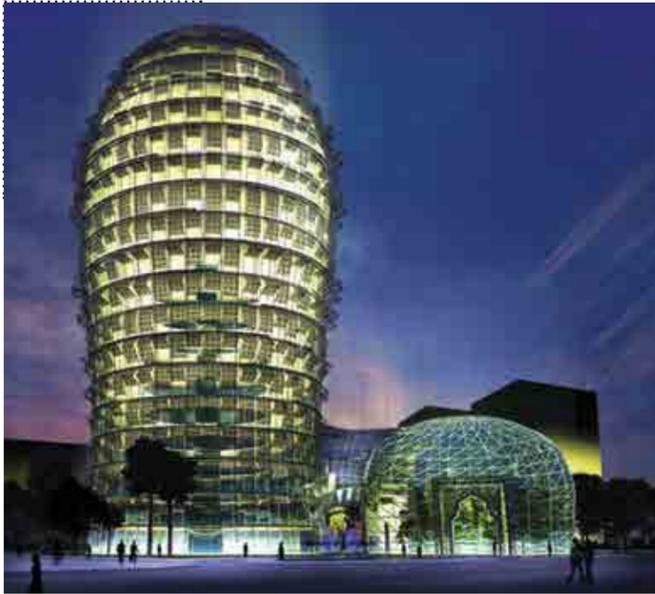
A new concept in building technology has emerged, which would enable control and monitoring of construction at the nano level, as well as monitoring requirements regarding design methods and tools including the building information model. The building information model incidentally will be the only human input to this automated nano- to meter-scale building process. Given that this exciting technology would become affordable by 2025, architects will have the capacity to grow their buildings and probably eliminate those pesky contractors!

Mitchell Joachim is another architect who envisions a retro-futurist alternative for home building, except that his proposal is based on ancient gardening practices: "Let's grow it on-site" says Joachim, which incidentally is the concept behind his 'Fab Tree House'. Rather than cutting down a tree and transporting it from forest to mill to lumber-yard to building site, the house is the tree. It's the ancient art of "pleaching", which is a process of training and joining plants to create structures.

This is given a 21st century twist, by using milling software to achieve precise geometries.

"You can pre-grow a village with no consequence on the land," he says. He thus proposes a positive carbon contribution. His other proposal to grow homes the way leather manufactures grow synthetic skin is equally inspiring. The successful prototype which was displayed at the MOMA New York showcased an abode which used fatty cells for insulation, cilia for dealing with wind loads and sphincter muscles for the doors and windows. Architecture has constantly evolved with help from visionaries like Mimar Sinan, Antonio Gaudi and Warren Chalk. Their concepts have been filtered by time and trickled down various generations of innovators to become a base for some of the greatest architectural minds of today. They have paved a new era of design and construction by challenging the existing when necessary. It is apparent that our generation is at the cusp of change, designer should step up to innovate in how our valuable commodities can be used.

In the future, the practice of architecture will be associated to various other skills of engineering, machine operation and science. The most promising emerging architectural technologies point towards making this design and construction process a wholesome package.



Source: www.wiki.ucfilespace.uc.edu



Source: www.archdaily.com

PREACHING SUSTAINABILITY THROUGH TECHNOLOGY

BY PRITI KALRA, ARCHITECT,
PARIKSHIT DALAL DESIGN + ARCHITECTURE



Source: www.izumo-inc.com

Frank Gehry once said, "Architecture should speak of its time and place, but yearn for timelessness." The architecture of a time develops as a response to the prevailing global conditions of that period, be it political, financial, social or natural. If one were to take a keen look at the construction industry over the recent decades, one would promptly deduce that the most hard-hitting concern of architects today, is the question of sustainability - the concept of the green building.

From effective HVAC systems to renewable energy production to low-cost building materials and techniques, sustainable architecture aims to minimize the negative impact a building could cause to the

environment, with a broader goal to not inhibit the opportunities of future generations. While designers fight this battle, they are dutifully supported by the biggest weapon of our time - a rapidly progressing technology that has the ability to evolve overnight. Thus, emerge the current most predominant trends in architecture inspired by a green sensibility and a renewed enthusiasm to innovate both in form and utility.

Leading the army of the green building movement, bio mimicry is a design strategy which revolves around generating solutions. Often confused to be a methodology which dwells only on nature-inspired form, it employs the use of patterns in nature,

particularly in biological systems, which have developed through natural selection over 3.8 billion years of research, to design buildings which function more cost-effectively and are less energy-intensive.

A recent example is the proposed design for the Minister of Municipal Affairs & Agriculture building in Doha, Qatar envisaged by Aesthetics Architects GO Group. Miming the spines of the cactus plant, the building facade has been designed to consist of hundreds of smart shades that open and close depending on the strength of the sun.

Following closely behind is the concept of modular design or prefabrication especially in commercial and residential projects,



Source: www.archdaily.com

which offers quicker and greener production techniques targeting firms looking to cut costs. Modular buildings consist of universal repetitive parts called modules which are mass-produced in a factory, shipped to site and then assembled in the most utilitarian arrangement.

They become a practical solution to buildings which have a scope for future expansion, as these components can be added or removed to introduce changes in functionality, without altering the larger portions or overall concept of the design. Forest City Ratner Companies (FCRC) just announced its partnership with Skanska to develop the first residential tower that is a part of the Atlantic Yards Development in Brooklyn using modular construction, designed by New-York based ShoP Architects. This 32-storey building will consist of modular components in a 1,00,000 Sq feet space, employing 125 workers at the fabrication facility.

Importantly, technology has helped improve the reputation of glass from a symbol of

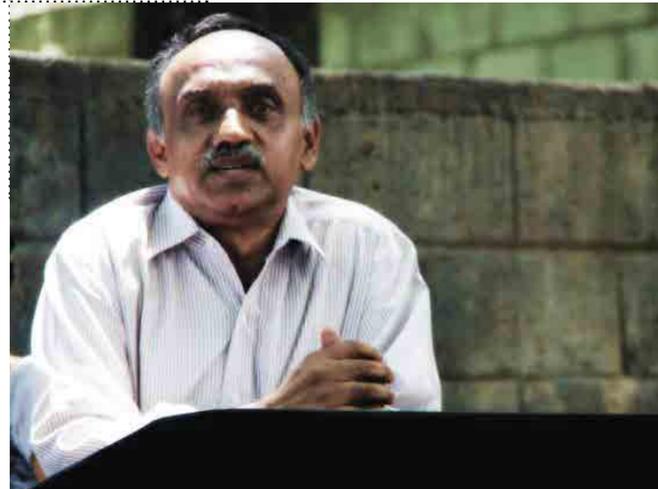
energy inefficiency to the staple of green building. Advances in window design, among many others, include photovoltaic glass which when directly incorporated in the window surface could act as a primary energy source for the building. Another example is Izumo Contractors' use of electro-chromic glass in the proposed Iligan City Coliseum in Lanao del Norte, Philippines, which instantly dims or lightens window panels depending upon the time of day, thereby accounting largely for the building's heat savings.

All the three above projects are proposed ones. The recent advancement in technology has had an impact in the architect's studio as well, with the emergence of high quality 3D rendering software, which have revolutionized the design process. From termite mound-inspired cooling and ventilation systems to a staircase inspired from the spine of a whale, from modular housing units to modular home furniture and from glass facades

on skyscrapers to meticulously detailed glass window panes, the latest emerging trends in architecture unanimously preach sustainability in today's most commonly spoken language - technology.



Source: www.cimots.com



Portrait of Dr. Anantha Krishna addressing a student gathering. Photo by Ruchira Mattoo

DESIGN IN PRACTICE AND IN SCHOOLS THROUGH TECHNOLOGY

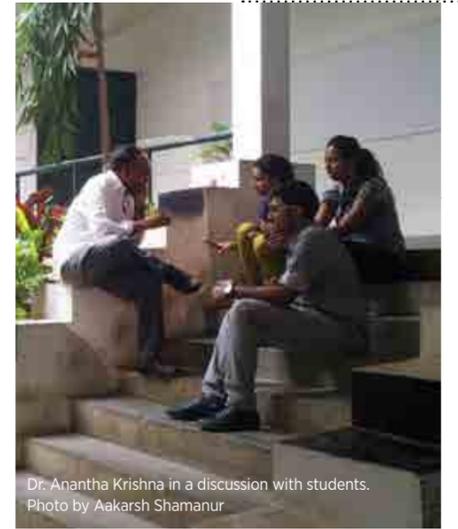
BY DR. K S ANANTHA KRISHNA



Dr. Anantha Krishna in a conversation with B V Doshi. Photo by Hanisha Tirumalasetty



Dr. Anantha Krishna addressing a formal student gathering. Photo by Aakarsh Shamanur



Dr. Anantha Krishna in a discussion with students. Photo by Aakarsh Shamanur

sanitation, electricity, HVAC, acoustics, structures—all these services represented by consultants are to be integrated with design. Good schools make an attempt to provide this interaction between the student and consultants. Design in architectural firms is invariably team work. A team is given the responsibility for a given design. In the Schools, it is invariably the individual designing in isolation albeit under the guidance of a teacher. Working in groups can be encouraged in Schools. For example, groups of four students may be asked to work on a time problem. In this situation, students are forced to interact and negotiate for a common agreeable idea.

to be imparted and the brief should be in written format. Teachers of a given studio should be able to know the previous semester problems tackled by a group of students. It is also essential that a new set of teachers are provided every semester so that at the end of the course, the students are exposed to a variety of ideas. The teachers of design should hail from different backgrounds and schools of thought so that students benefit from variety.

Design teachers should themselves possess a variety of skills. An ideal design teacher should be a good designer to assure the student that the teacher not just preaches but practices too.



Showcasing students work to Anjalendran, a leading Sri Lankan architect. Photo by Dr. Shaji Panicker.

LEARNING BY DOING

The basic method used in the Schools of Architecture to teach Design is to simulate the real-life design situation in the professional offices. **The philosophy is 'Learning by Doing'. The student goes through the same processes by taking up a site, getting a brief from the teacher, analysing the context of site, climate, requirements and such, responding with an initial design concept.** The concept goes through the 'crits' of teachers and is firmed up. The concept is then developed into detailed design, which is invariably in the form of sketch scheme. The sketch scheme is evaluated as the end product. It is very rare that construction or working drawings are prepared and there is no question of actual construction.

Practitioners are often involved in the teaching of design. Although they bring in their

experience and provide crucial inputs, they often lack the pedagogical skills of teaching design. The ability to motivate the student, to set a problem to achieve clear cut goals, to guide a student's thoughts in a given direction rather than impose one's own will on the student – these are special skills required for a teacher of design.

STARK DIFFERENCES

Further, the differences in the contexts of Schools and Professional offices are very stark. The student lacks experience and therefore finds it hard to come out with suitable ideas. The time factor is also not on his or her side. Tackling two design problems in a semester of 14 weeks is a tough task. A student also has to have time for the other courses to be learnt along with design. The

ability to switch focus to other subjects but still deliver design solutions in the fixed time frame is extremely challenging and demands a rigorous schedule. Such a schedule is not adhered to by both teachers and students and leads invariably to dilution.

In practice, the role of the client is very critical. There is constant interaction between the client and the architect and design solutions are a result of the collaboration between the two. However, in most schools, this interaction is not simulated satisfactorily. There is a strong case for improving this situation by bringing in representatives of the clients or users into design studios.

In practice, consultants play a key role in shaping of the design. Water supply and

VERTICAL AND HORIZONTAL INTEGRATION

In the Schools, unlike in practice, there are issues of vertical and horizontal integration in design from the first year to the final year and the gradation of design problems. The gradation is in terms of scale and complexity reflected in the number of issues addressed by the student. In the final year thesis project, all issues are to be addressed in a comprehensive manner. **Horizontal integration is more difficult to achieve. The inputs from courses on Building Construction, Structures, Services, History and Theory need to be integrated into Design. This requires co-ordination and dialogue among teachers.**

Qualities of design teachers

Each design problem to be set by the teachers should have an objective stating the skills

Secondly, the teacher should be well versed in the pedagogy of design. For example, if the teacher wants the students to understand the influence of site on design, a class of 40 can be divided into two groups of 20 each. The design problem could be the same for both groups, like a Museum, but the site can vary drastically. One group can be given a site in the centre of the city, with buildings all round and congested traffic. The other can be given a site on the outskirts, where it is vast and green all round, with less traffic. The design of the two groups at the end of the project can be displayed with the discussion concentrating on the differences in design, attributable to each site. Thirdly, the teacher should also be aware of the teaching methodologies in different schools, both in India and abroad. Besides being well read, the teacher needs to be sound in contemporary theories and be a good critic.

STUDIO AS MELTING POT

The studio should be used as a melting pot of ideas. Studios should aim to generate ideas. The role of studios should include that of creating a platform for criticizing architectural practice. Not many schools in India aim so high. It is not enough to just mimic practice. It should act as a counter weight to the practice. For example, Bauhaus was one of the leaders of Modern movement. Indian Schools of Architecture should compete globally in terms of both processes and products of studios.



ARTISTIC DWELLING IN LUSH GREEN VALLEY

ARCHITECT OF THE YEAR APARNA NARASIMHAN

Art Village Valley School was picked for the prestigious **JK Cement Award 2012 Architect of the Year**. Receiving this prestigious award was **Architect Aparna Narasimhan** of **Venkataramanan Associates**. Her project Art Village is a fine blend of art and nature, fusing seamlessly into its thick green environs, the structure speaking the philosophy of the school. While a picturesque banyan tree forms the backdrop, the Art Village is built on either side of an existing Amphitheatre, with the natural slopes left undisturbed.

The exposed brick structure espousing an earthy theme was explicitly woven around the trees, "with not a single tree being cut" says Aparna, explaining the evolution of her design. The sloped roof and open to outdoors design breathes charm and character, reflecting creativity that is in harmony with the rest of its natural environs.

Further, the two wings of the Art Village, while nestling amongst the trees, evoke the feel of a village through streets and village squares. Spaces like steps, seats, verandahs and those under the trees are areas for meeting as chance consequences to provide informal confluence and not forced onto the design.

The spaces between the rooms particularly have been structured to facilitate interaction, with the open spaces built along the contours of the slope leading to the Amphitheatre in one wing and against the slope in the second wing to lend a difference. A small performance area too has been incorporated into one of the wings to aid physical portrayal of art by the students. Thus, the building has been fine tuned to address functionality and ideology

while not letting go of aesthetics as well as budget allocated.

"Budget was a major guiding factor in veering the design towards the earthy theme without sacrificing the general philosophy of the school", says Aparna. The large verandahs in this simple yet robust structure bring in the feel of outdoors into the interiors, giving the ambience of learning art in the expanse of outdoors. Old windows and doors fitted in add plenty of character while keeping an eye on cost without openly appearing so.

With elements such as random rubble walls, the building sees no RCC load bearing elements. Even the lintels seen are granite stone, standing out in contrast to the exposed brick walls. Mangalore tiles mounted on steel trusses complete the roof while terracotta figures integrated with the walls as well as the eaves of the tiled roof enhance the earthy, art oriented ambience.

While not being bogged down by any specific structural philosophy while designing, Aparna believes that the most efficient design is

one that addresses the needs of the client by getting the right perspective of the functionalities required. "Locational conditions and site topography do play a significant role in the evolution of the design and these are but the basic hygiene factors for any project", she says. She is however quick to add that her designs are not deliberately done to produce iconic pieces as the accent is clearly on getting the right fit. In short, design is about evolving a form which perfectly fits the program, she says.

Aparna has also been the recipient of prestigious awards in the past, with the Science Centre in the Valley School too being one of the projects adjudged the best in the institutional building category. The Science Centre won the prestigious A+D & Spectrum Foundation Architecture Award 2002 for essentially retaining and integrating the natural elements of the site into the design and deliberately using rectilinear forms, 'frames' and 'contrasts' the building against its natural surroundings. She was also Finalist, Worldwide category, in Brick Awards UK, for the same structure.

Year 2003 also saw her bagging the A+D Spectrum Special Mention award for Institution Building for St. Joseph's College of Arts and Sciences for retaining and rejuvenating the old colonnaded semi-circular hostel building. Year 2004 saw her winning the JK White Cement Commendation award in Private Residence Category where she used the length of the site to facilitate privacy by visualizing the design as two houses.



East wing - the clay sculptures integrated with the exposed brick walls form an inspirational counterpoint for the open classes of the courtyard.



With mud for floor and trees for roof, these open classrooms inspire creativity.



Shaded stepped courts of the east wing act as classrooms affording views of the amphitheatre beyond.



The large central amphitheatre is the focal point of the art village punctuated by trees and seen here against the west wing.



Ground floor plan with trees as on site.

CREDAI, BANGALORE

SETTING STANDARDS FOR THE REALTY INDUSTRY

The **Confederation of Real Estate Developers' Associations of India (CREDAI)**, Bangalore chapter is a trade body for private real estate developers in and around Bangalore. CREDAI Bangalore currently has 160 registered members. The apex body's main objective is to perpetuate an ethical code of conduct, which is self-imposed and mandatory for all the member developers/builders of CREDAI and to maintain integrity and transparency in the profession of real estate development.

Objectives of CREDAI Bangalore

- To represent the overall interests of developers/builders in Bangalore through regular dialogue and representation with the concerned authorities, on policy or regulation-related issues.

- * To create a platform for developers/builders to work together in concert, towards improving the quality of development and construction related activities, by sharing efficiency ideas, and eventually work towards sustainable constructions.

- To disseminate data, statistics and other related real estate development information to its members.

- To promote the interest of construction workers and to educate them on best practices.

- To provide a transparent platform for property purchasers, sellers and housing finance agencies; and to address grievances in a timely fashion.

- To be the 'Knowledge Bank' for all Property related enquiries in Bengaluru.

The need for a self-regulatory body like CREDAI has assumed more importance in the recent times because of the exponential real estate growth in Bangalore in the last couple of decades.

The concentration of the IT sector in the South and East, and the International Airport in North Bangalore has led to an all-round development

of real estate industry both in commercial and residential. Developers from other cities have also forayed into the City and all these factors necessitated the formation of CREDAI.

Main Activities

CREDAI links private real estate developers to the government and customers through numerous initiatives and activities. By bringing the majority of organised private real estate developers under a single umbrella CREDAI has become a potent force for rapid development of the realty sector. And, this in turn, has become a major contributor to the growth of the Bangalore's and Karnataka's overall economic growth.

By bringing the developer and builder community together, CREDAI Bangalore creates a cohesive unit that can reap the industry's true potential. Using the platform a builder can efficiently address issues ranging from taxation to policy, consumer response to fiscal measures. Being an industry body CREDAI provides the support of a peer group that is committed to working in the interests of the real estate industry as a whole.

CREDAI Bangalore also organizes activities including the annual conference NATCON, through which a member can learn from and interact with national and international players.

Code of Conduct

CREDAI Bangalore has a 'Code of Conduct' document listing principles that binds all its members. This document lists the guidelines and a mandatory set of laws that all members

have to implement and abide by. Authorised officials of every member will compulsorily sign this document to become a member.

The aim of this Code of Conduct for developers, promoters and builders is to maintain the honour and dignity for them in general, to secure the spirit of friendly cooperation between them and their customers in the promotion of the highest standard of promotion, development and building activities. Another major purpose is to establish transparency, and fair dealing between the developers, promoters and builders with their customers.

One major example of CREDAI's Code of Conduct is the definition of 'saleable area' as follows: The saleable area for customers would include the built up area made up of plinth area and a share in common area (both of which would be individually quantified); common areas would include all covered areas intended for common enjoyment such as lift machine room, staircase, stairs head room, lift core at each level etc.. CRDEAI clearly specifies that underground sumps, water tanks, compound walls, atrium (with impermanent covering), open to sky spaces, septic tank, security cabin/servant toilet (outside building line) and walkway through car park cannot be included in 'saleable area'.

Antarya will carry a series showcasing some of the spectacular designs of the CREDAI members. The current issue features three projects of the Brigade Group.



ZACHARIAH CONSULTANTS BRIGADE CALADIUM

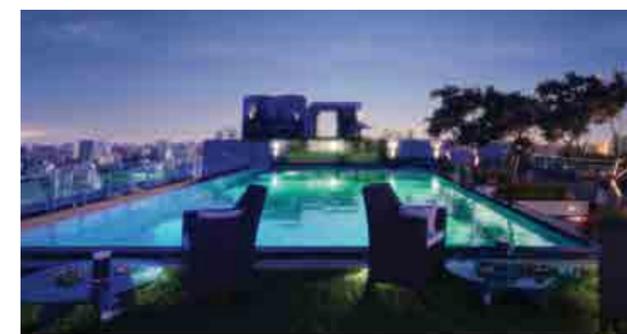
This design is one that is structured to make a person to sit up and take notice, not just of its tangible form, but of the intangible, of life, of things that are important, of the time that is forever slipping by, like the drops of water falling flat on the ground, the river that is flowing past, never to return. Brigade Caladium, designed by Zachariah Consultants is an inspiration that came up from lack of time, a reflection on the form of water, flowing endlessly taking different shapes, moving only forward, not backwards.

Stemming from this reflection, inspiration was born, not surprisingly a residence rather than a commercial complex. For, a residence is likely to more sensitively portray the concept of the ever moving, ever dying time, like the flowing water.

True to its inspiration, the design of the residential complex is fluid in form, displaying great beauty and form with functional elements aesthetically keyed in, addressing a wide range of living requirements. The majestic curved structure is a reminder of a few drops of water spilt on the floor, spreading out to form a beautiful pattern.

The curved structure, besides emulating the flow of water, leaves a calming effect on the nerves, characteristic of flowing water. The serenity of the building is further accentuated by the sensual form that connects the two towers by a fluid roof that flows effortlessly on to the second tower. The roof top forms the recreation space in the sky, with a pool and picturesque terrace garden that affords a panoramic view of the city.

The façade of the two towers is equally fascinating, the sinuous curvilinear decks that extend from the individual balconies, winding through the exteriors throwing exotic patterns on the walls. Greenery pervades the building, seeping refreshingly into every apartment through the large balconies while the lush green atrium between the two towers sets the tone right at the entrance for what is in store within.





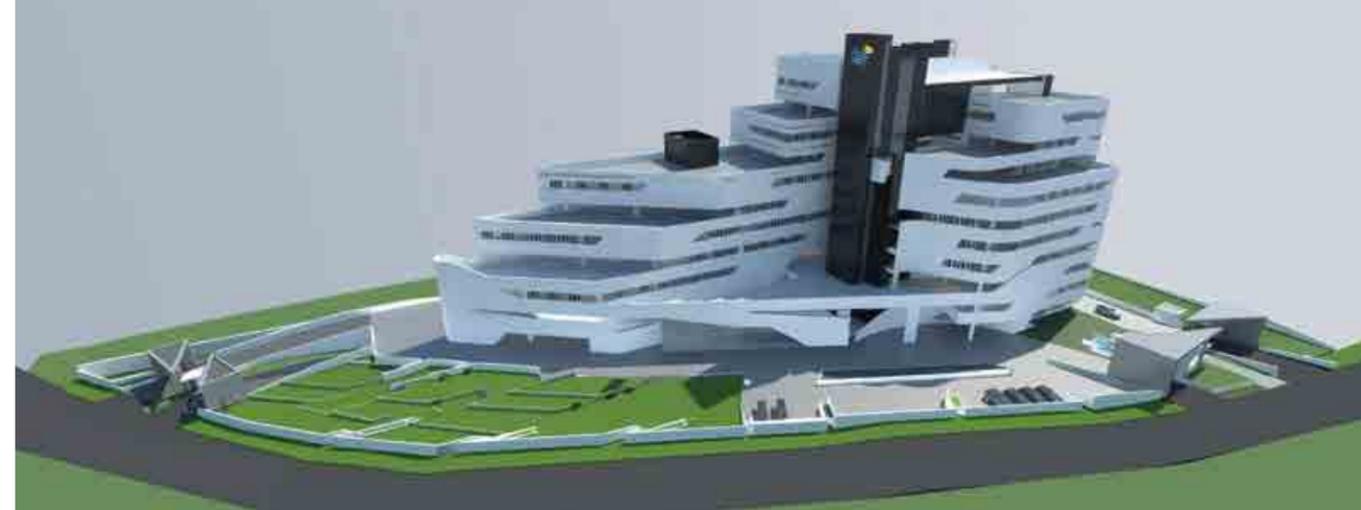
C&T ARCHITECTS BRIGADE RUBIX

The challenge was to design on a triangular site situated at the junction of major roads, yet come up with a retail space tower that is iconic in design, aesthetic in representation. Iconic, the design certainly is, drawing inspiration for its design from the Rubiks cube, the geometry of the building shaped to stack the various levels in a manner that simulate a twisted Rubiks cube.

The triangular retail podium is structured to house areas for retail segments and restaurants while opening on to public spaces, forming the pedestrian plaza. The dramatic twist of the triangular forms stacked on top of each other over the expanse of pedestrian plaza gives the illusion of a seamless expanse of space that not only contrasts but also accentuates the geometric stacking above. The robust choice of colours contrasted with white further add to the drama of the structure.

Each level of the building is divided into segments that twist as they rise, creating a spectacular structure that is arresting in the neighbourhood skyline. The stacked levels of nine floors also incorporate open as well as semi-covered spaces for dining.

The geometry of the building brings in a strong sense of centre with the central core holding the structure. While the in-centre of the geometry offers a strong visual cue, the triangular elements are starkly visible in the emulation of the open twisted segmented cube. Besides, the presence of the twisted stacks, apart from breaking the monotony and lending a fascinating façade, also brings in dynamism, showcasing an open Rubix cube that is in the process of being transformed.



OCHRE ARCHITECTS BRIGADE IRV CENTRE

The challenge was to come up with a spectacular design that not only addressed functionality but also the green elements of the structure while ensuring the odd shape of the site did not sacrifice the aesthetics. Given the triangular shape of the site, the corporate office complex designed by Ochre Architects, was conceived as two triangular towers with the common amenities connecting the towers at the lower level.

While sharp linear openings accentuate the sharp edges of the structure, the building is designed to step back at regular intervals to accommodate a landscape which in turn doubles up as spill over spaces for the respective commercial occupants. These terraces, besides serving as fire escape balconies and housing the facility for connecting individual spaces through them, are oriented towards north-east, ensuring they are shaded during the hotter part of the day.

The craftily designed multi-level structure with its spill over landscaped terraces at different levels, lends the illusion of a horizontal expanse of space, reducing the steep vertical incline. The stepped back walls at the different levels further accentuates the aesthetics of the structure, allowing the building to breathe and relax while serving to be captivating.

A circular four storied atrium at the centre leads to the common facilities at the lower level while its upper level staggers back to bring in plenty of natural light and ventilation. The atrium thus, not only serves as spectacular design element in the building, but also as a cooling system, throwing out the hot air while natural light without heat ingress filters into the interiors. Says Architect Tushar Vasudevan, Ochre Architects, "Not only is the design and orientation of the building tuned to meet green standards in construction, the materials too follow the same route, enabling the building to pitch for a green building certification."

Thus, minimum windows have been incorporated, maintaining the window to wall ratio as per the green norms, to reduce heat gain while the openings ensure sufficient natural light and ventilation seep in to merit a green certification. The windows also incorporate single glazing with shgc value as per green certification standards to reduce heat gain. Louvers integrated into the glazing system bring cool air into the building while hot air escapes through the atrium. The structure has also been designed to accommodate future expansions in space if sanctions permit. Thus, with the prospect of a higher FAR being permitted in the future, the structure has been designed to cater to the same.



ON AN ENCHANTING LIGHTING TRAIL

LIGHTING HAS POWER TO TRANSFORM EVEN THE MOST MUNDANE OF INTERIORS, THEIR EXCLUSIVE FEATURES USED EFFECTIVELY BY STRUCTURES FOR CENTURIES. THIS INCLUDES NATURAL LIGHTING AS WELL AS TRADITIONAL OIL LAMPS MANIFESTING IN EXOTIC FORMS AND CREATING STRIKING REPRESENTATIONS. INTERIOR DESIGNER MAHESH CHADAGA TRACES THIS HISTORY OF LIGHTING FROM HIS ECLECTIC TRAVEL CATALOGUE, STARTING FROM THE TRADITIONAL DIYAS TO AN EXQUISITE FEATURE OF THE LIGHTING ELEMENTS IN THE 17TH CENTURY SULTAN AHMED MOSQUE, POPULARLY KNOWN AS THE BLUE MOSQUE IN ISTANBUL, TURKEY. HE ENDS IT WITH A SPECTACULAR LASER BEAM SHOW IN MARINA BAY SANDS IN SINGAPORE.



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01 Lighting through traditional Diyas, throwing interesting patterns and shadows with their gentle yellow light.

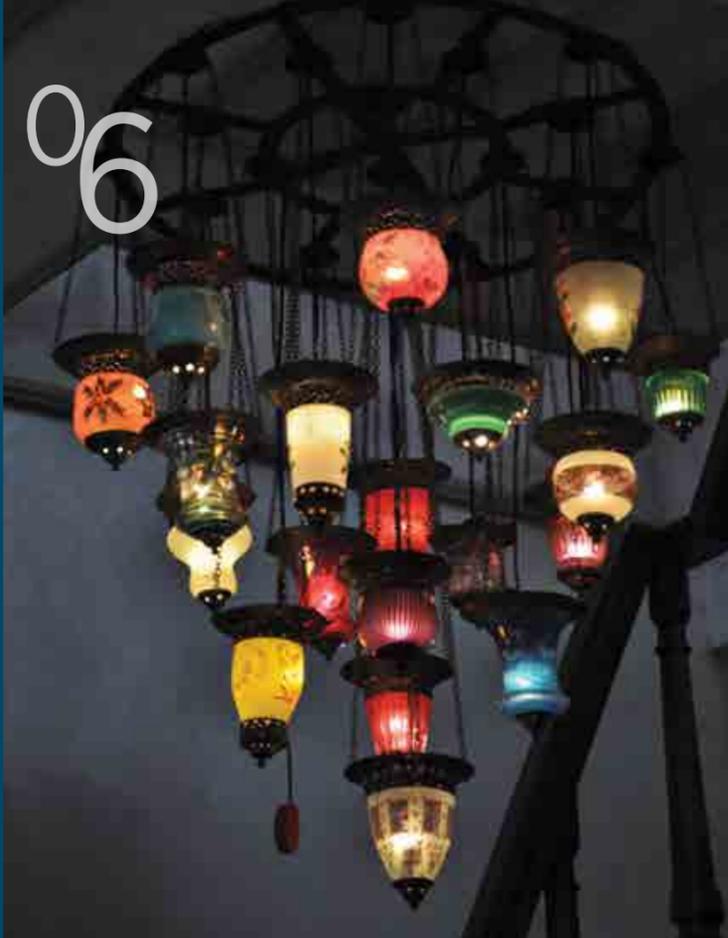
02 A view of the dome in the Blue Mosque, letting in natural light through a circle of picturesque windows.

03 A view of the exotic chandeliers made of low hanging brass rings and clear glass lanterns holding incandescent bulbs in the Blue Mosque. The incandescent bulbs replace the traditional candles that served as lighting in the absence of electricity in the earlier 17th Century.

04 A view of the path lit by the traditional chandelier as well as from the natural light seeping in through the vent in the door.



05



06



08



07

05 The Grand Bazaar Istanbul selling its famous multi-coloured vibrant lights.

06 A closer view of the vibrant lights on sale in Grand Bazaar.

07 Festive lighting to mark Diwali in Little India, Singapore, showcasing the myriad representations of LED lights.

08 Spectacular laser show on Marina Bay Sands Singapore, showcasing the current transformation of lighting from its earlier simple manifestation as traditional oil lamps.

FunderMax:

ADDING A DIFFERENT DIMENSION TO FAÇADE



The nature of the façade used has the potential to transform the entire character of a building, lending it an appeal and personality that goes beyond the design of the structure. The exterior cladding used in a building is invariably wood, stone or brick tiles in a residence while commercial buildings lean towards glass or aluminium. Currently, plenty of synthetic options prevail, simulating wood or stone, making them popular choices.

While these undoubtedly accentuate the aesthetics of the exteriors, the often asked question is their functional aspect. Do they protect the structure from weathering or from extremes of temperatures? Besides, the materials used for cladding, are they sustainable options?

Essentially, facades are the 'skin' of the building, acting as a shield between external environment and the built structure. While protecting the structure, this skin should allow the building to breathe besides conveying its function, significance and character.

Facades can be both active and passive where active and interactive facades interact positively with climatological elements to enhance energy efficiency in the building. The façade elements that enable the same are typically rear ventilated where air is freely allowed to pass behind the façade with open joints at top and bottom and also in between. This allows increase in level of energy efficiency in the building.

Double skin facades consist of a single glazed external screen, a naturally ventilated cavity and a fully glazed curtain walling system as internal screen. Adjustable Venetian blinds in the ventilated cavity provide solar shading while the air filled buffer zone regulates the internal climate. As against this, the single skin façade consists of a single glazed external screen with or without the solar shading device in the form of adjustable louvers.

Back ventilated facades are a complex multi-layer solution enabling the dry installation of the covering elements. The ventilated cavities here use the pressure effects of the wind to dissipate energy of rain water and prevent it from entering the building.

Incorporating all these features and many more is the façade options offered by FunderMax India, a 100 per cent subsidiary of the principal company based in Austria, FunderMax GmbH. Using special resins and cellulose fibres, paper based cladding for the exteriors that is treated to withstand the harshest of weather conditions as well as act as an excellent insulating material for the structure, the FunderMax panels are water resistant, saline resistant, scratch resistant, impact resistant as well as most importantly UV light-resistance giving it optimal Light-fastness properties.

The FunderMax panels are cladded to the walls with a small air gap between the panels and the wall which not only enables the building to breathe but acts as insulation from all types of weather conditions. While



the heat ingress as well as the intensity of extreme cold is considerably reduced, the energy savings ensuing from its presence amounts up to 30 per cent. Added to this is the reduction in the fall of rain water directly on the walls of building.

The green element of FunderMax panels is evident in the sourcing of the materials too, with the paper used for the panels coming from FSC certified wood. The panels come in multiple colours and designs, with their individual representation limited only by the designer's creativity.

Thus the panels showcase themes ranging from dense forests, sports, art, airfield, famous personalities or just exotic patterns, while the play of multiple colours bring in varied dimensions to the façade. Alternatively, the panels also simulate glass that serves as a fine reflector of the outdoor scene.

Says Dr Prashanth Reddy, CEO and Managing Director, FunderMax India, "the panels are excellent material for theme parks, schools and public spaces as they are totally clear of sharp edges, while their colours, versatile patterns and multiple design options makes them prime candidate for these spaces."

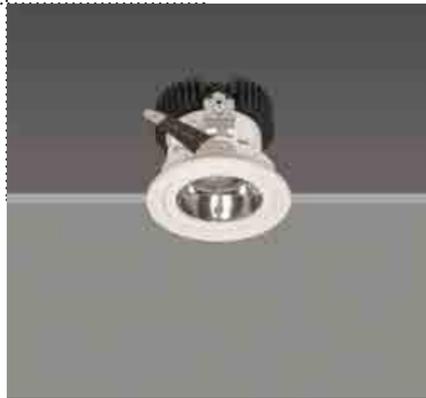
Besides colours and patterns, the panels incorporate different forms such as perforations, louvers to address ventilation. The panels are also excellent railings for balconies, offering an artistic appeal to the façade with their colours and patterns.

Interestingly, the panels can also be used effectively to introduce haphazard projections in the façade that lend an element of novelty and character to the building. It also allows the effective use of the ensuing space in the interiors from the haphazard projections.

While the panels are indeed flat surfaced, it still does not negate the option of using them in curved structures. All it needs is clever usage and intricate crafting. Thus, an intricately curved exotic thematic structure can be clad with FunderMax panels by merely placing the flat panels deftly on the curved steel structure.

The use of panels incidentally is not confined to walls or curved structures but extends to ceilings too. Thus, an exotic ceiling displaying plenty of art and creativity can be brought about by merely using FunderMax panels. Exquisite patterns cut out or painted on these panels, can form the ceiling lending a unique character to the interior. Besides, the insulating property of the panels further ensures the interiors remain cool by reducing the heat ingress from an exposed roof.

The FunderMax panels can also be used in outdoor seating where the wood or iron benches could be clad with them, adding colour as well character through their thematic representations.



Tulip Corporation:

ECLECTIC LIGHTING EFFECTS



Lighting is an element that has the potential to transform an interior, whatever the theme or nature of décor. While the physical structure of the lighting fixture adds to the aesthetics of the living space, conforming to the theme of the décor, the physical effect of the lighting feature spells the mood of the ambience, lending a totally different aura to the interior depending on the particular choice.

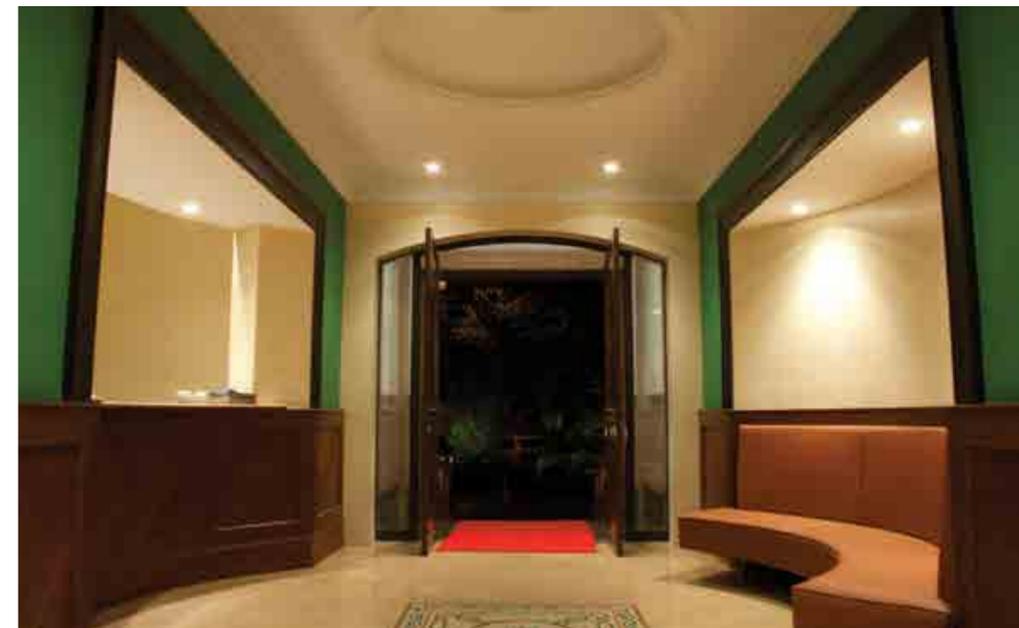
Tulip Corporation is a design oriented branded light fittings manufacturing company, where the designs are done in-house based on specific requirements of architects and interior designers besides catering to the general market needs and trends. Having started operations in 1970, the company has been marketing its products across the country. Its custom made luminaires come with distinctive style that set its product apart not just in design and function but also in its quality and versatility. Its products also cater to the export market, with Dubai being a notable destination.

Founder and CEO, Rashmi Bhuta, is recipient of awards in appreciation for his contribution in lighting design as well as for establishing excellence in quality of his product. As founder member and past governing body member of 'Indian Society of Lighting Engineers' (ISLE), Bhuta received the award for invaluable contribution to the Art & Science of Lighting and for Excellence in consistency for Manufacturing & Developing interior oriented products from 'Institute of Indian Interior Designers' (IIID).

The designs incorporated by the company are totally contemporary, reflecting plenty of creativity while packing in simplicity in structure that offers consistency in feature along with value for money. Interestingly, Tulip Corporation initially had a number of craftsmen who were specifically skilled to customise down to the minute specifications from design industry professionals.

Not surprisingly, the exacting design requirements of Bhuta, inspired by multiple elements, were carried out and supplied to the market with aplomb. Some of the designs were so unique and inspiring that many in the industry "would wait for the new designs to reach the market." While the lighting fixtures on offer are invariably simplistic in patterns, focusing more on the lighting effects than on the physical magnificence, addressing more the needs of commercial requirements than specific aesthetic aspirations of residences, their sleek style and excellent quality ensures that it is a much sought after product in this segment.

Says Bhuta, "Our current set of light fixtures is made of acrylic along with steel and aluminium though we would like to explore the use of other materials like fabric, which would bring in an exotic feel to the lighting features. Earlier, the fabric used in a light fixture was invariably silk but this has altered with multiple possibilities arising. For instance, a backlit fabric with a fabulous print can prove to be spectacular lending a totally different aura."



Founder and CEO, Tulip Corporation:
Rashmi Bhuta

Adds Bhuta, "Colour characteristics of lamps also brings in warmth into the room besides transforming the ambience. Similarly, spot lights, indirect lighting are features that accentuate the décor, focusing on highlight zones besides altering the mood."

Tulip Corporation thus focuses on providing complete solutions in lighting, be it wall mounted, ceiling mounted, custom made to suit specific interiors or to create a mood. The accent is on providing the best possible options that suit diverse needs and aesthetics, keeping quality as top priority.

Tulip Corporation has recently forayed into designing LED light fixtures too, bringing in the element of exotica into these energy efficient sources of light. LED lighting gives maximum lumen per watt and has far longer life span compared to traditional bulbs, besides being of green technology. Says Bhuta, "Our future customised design features will largely be veered towards LED products as it complies with sustainable technology besides offering multiple avenues for providing efficient lighting solutions."



Olive & Pine: LENDING CLASS TO YOUR KITCHEN

It is over a decade since Olive & Pine was started, thirteen years to be precise and it now serves as a leading brand in modular kitchen in Bangalore city. With an enviable reputation as designers, manufacturers and retailers, the company also extends its strong presence in Wardrobe and Home furniture. Offering an incredible choice of alternative shades, designs, materials, quality standards, with the inevitable price point, the company not surprisingly is reputed to meet the stringent expectations of the most exacting customer.

Today, Olive & Pine is widely recognized for its customized designs that are offered in aesthetic and functional patterns. Says Derick, Managing Director, Olive & Pine, "Our designs are scalable and offer a wide range of choices, from individualistic details like attractive glass front displays, multiple auto pull trays and steel sinks to various laminates and wood details." The ample storage space and easily accessible shelves, not to mention the cutlery drawers that slide smoothly into position, place the product on a class apart. The durable cooking platforms offered are structured to be cleaned with just a light wipe after cooking.

Olive & Pine procures its range of high-grade, finished laminations from select dealers based in Italy. Adds Derick, "At the root of Olive & Pine's expertise is a specialized amalgamation of exceptional craftsmanship, design and technology." Besides being widely recognized for its uncompromising style, sophistication and value, the brand is widely known for its inclination to use the latest state of the art Italian machinery and high quality hardware from leading brands across the globe. Olive & Pine is also into turnkey projects for some of the country's leading corporate and developers.



Managing Director, Olive & Pine:
Patrick Xystus Derick



GreatWhite Electricals: OFFERING SWANKY ELECTRICAL SOLUTIONS

In the business of providing high end electrical solutions, Mumbai based GreatWhite Electricals, a vision of a group that once pioneered the first 'Piano' switches in 1963, deals with three main verticals namely, swanky switch plates, electrical wires and circuit systems. With a fifty year legacy to fall back on, assuring the customer of its quality, GreatWhite Electricals had initially opened business in the field of paints, carrying the widely known brand name of Anchor Paints. The company later branched into the electrical division, providing end to end electrical solutions. The Group has also further diversified into other segments such as realty and writing instruments.

Recently GreatWhite Electricals started its new brand Myrah, which is coming up with exotic high end switch plates that promise to offer both quality and aesthetics. Crafted in style and designed in a range of textures and finishes to suit individual interiors, the domestic switchgear and premium range of modular switches are offered in two colours of pure white and grey. The smooth finished 'Touch Switches' are encapsulated in a sleek chrome casing, lending style and class. Other brands launched so far include Petra, Tivoli and Fiana.

Says Hemang Shah, Director, GreatWhite Electricals, "Last October saw the launching of building wires in FR and FRLS grades. This January, we have launched a full range of MCBs, along with RCCBs, isolators and DBs. Our single pole MCBs are in breaking capacity of 10kA, which no other Indian manufacturer has introduced yet. The USP of this range is its mid trip function, which is a unique feature of the knob coming to mid position in the event of an electrical fault."

Referring to the new brand Myrah, he further added, "These switches feature silent rocker mechanism (SRM) and dynamically designed sockets

(DDS), both of which are technological breakthroughs. Our engineers have designed a precise movement to dramatically reduce the on/off sound to 55db. Likewise in sockets, a spring-like effect eliminates any chance of loose connection."

The company is planning a capacity expansion for its entire product category with the Haridwar facility expected to be doubled. The current capacity in this facility is 1,50,000 switches a day and 1,00,000 poles per month of MCBs while the Valsad unit has a capacity of 5,00,000 coils of wires per month. The company also proposes to expand its warehousing infrastructure. At present four warehouses are located at Haridwar, Valsad, Bhwandi, and Patna. Another two, one in Bangalore and another in Sahibabad is expected to become operational by the next quarter. The company currently has 35 sales offices across the country and an over 350 strong sales team to address marketing requirements.



February 25th to 27th, 2013: Philips Light & Lighting Design Workshop

IIID BRC in technical collaboration with Philips India, conducted a three day workshop on Light & Lighting Design (Technology & Application) in IRIS Hotel. Ms Sudeshana Mukhopadhyay, Director, Philips Lighting University conducted the workshop. A wide range of aspects concerning lighting were covered. These included rapid advancement in lighting technologies and the vast number of lighting options currently available in the market. The admission to the workshop was based on prior registration.



Ms Sudeshana Mukhopadhyay, Director, Philips Lighting University.



Lighting exercise.



Participants - Philips Lighting Workshop.



Audience - Founder Day Event.



Release of Antarya by Dinesh Verma & Bindi Saolapurkar.



Gitanjali Krishan, Shyamala Prabhu and Bindi Saolapurkar.



Team Antarya - Nandhini Sundar, Kumkum Nadig, Girish BG, Dilip Maitra.

March 23rd, 2013



Raja Watwe - Founder of Bangalore Regional Chapter.



Past Presidents IIID BRC (L to R): B H Rathi, B N Bindumadhava, P M Kulkarni, Nandini Shankar, Gitanjali Krishan, Leena Kumar.

IIID Bangalore Chapter was founded on March 12th 1994 by Architect Raja Watwe and it has certainly come a long way over the last decade. What started then as a group of 80 members has currently grown to over 180 members. The first Chairman of the Chapter was Architect B H Rathi, making the beginning and showing the direction to the glorious years that ensued.

Incidentally, Bangalore Chapter initiated the Anchor Regional Awards which is now the IIID Anchor National Award. Bangalore Chapter has also hosted the awards night twice in the past.

This year, March 23rd not only saw the celebration of the Founders Day, it also marked the launching of the first design magazine of the Bangalore Chapter, "Antarya". The magazine, spearheaded by Architect Dinesh Verma, has the vision of becoming the most sought after design magazine in the country in the coming months. The magazine serves as a fine platform for architects and interior designers to showcase their projects and designs. The evening also saw the presentation of Anchor Awards while Founder Architect Raja Watwe spoke to the gathered members, recalling the beginning and the ensuing journey over the years.



Flute performance at Antarya launch by Artist Flute Butto.



Artist Flute Butto.

The evening also saw a scintillating presentation by Annada Prasanna Pattanaik, popularly known as Flute Butto, to commemorate the Founders Day celebrations. Hailing from Orissa, Flute Butto was born into a musical family, where, not surprisingly, as a toddler, he was presented by his mother with a bamboo flute. The small piece of bamboo that touched his lips at the tender age of four continues its unshakable alliance with him. He was just seven when he staged his first solo performance.

Interestingly, professional guidance in flute came to him only after the age of seventeen until which he had to content himself with experimentation

of different aspects of flute playing such as going high octave, playing various Indian Classical Ragas on his own. He later took to tutorship under the expert guidance of Prof M M Patnaik, a renowned Professor of flute in Sangeet Maha Vidyalaya, Bhubaneshwar. In his long illustrious career, Flute Butto has given performances across the world, besides performing in Indian films that have gone on to win National Awards.

IIID Anchor Award Winners, 2012

REGIONAL WINNERS

Category Name	Firm Name	Name of Signatory	Designation of Signatory	City	IIID Chapter	Regional Award/ Shortlisting
Residential – Single Dwelling	Ochre	Tushar Vasudevan	Principal Architect	Bangalore	Bangalore	S1 Commendtion
Residential – Single Dwelling	Inform Architects	Kiran Venkatesh	Director	Bangalore	Bangalore	S1 Winner
Residential – Single Dwelling	DDIR Architecture Studio Pvt Ltd	Dominic Dube	Principal Architect	Bangalore	Bangalore	S1 Runnerup
Residential – Single Dwelling	Ochre	Tushar Vasudevan	Principal Architect	Bangalore	Bangalore	S1 Winner
Residential – Single Dwelling	Ochre	Tushar Vasudevan	Principal Architect	Bangalore	Bangalore	S1 Runnerup
Retail	Ochre	Tushar Vasudevan	Principal Architect	Bangalore	Bangalore	S1 Commendtion
Commercial Workplace – Small	Ochre	Tushar Vasudevan	Principal Architect	Bangalore	Bangalore	S1 Runnerup
Commercial Workplace – Small	INT HAB Architecture + Design Studio	Sachin Shetty	Principal Architect	Bangalore	Bangalore	S1 Winner
Commercial Workplace – Small	Collage Architecture Studio	Swapnil Valvatkar	Studio Head	Bangalore	Bangalore	S1 Commendtion
Commercial Workplace – Small	RC Architecture Private Limited	George John	Director	Bangalore	Bangalore	S1 Winner
Hospitality	Sanctuary Architects & Designers	Anshul Chodha	Principal Architects	Bangalore	Bangalore	S1 Commendtion
Sustainable Interior Design	Gayathri & Namith Architects Pvt Ltd	Namith Varma Hegde	Director	Bangalore	Bangalore	S1 Commendtion
Furniture Design	Ochre	Tushar Vasudevan	Principal Architect	Bangalore	Bangalore	S1 Winner
Furniture Design	Ochre	Tushar Vasudevan	Principal Architect	Bangalore	Bangalore	S1 Runnerup
Young Interior Designer of the Year	Adi Studio	Adithi J Shetty	Principal Architect	Bangalore	Bangalore	S1 Commendtion

NATIONAL WINNERS

Category Name	Firm Name	Name of Signatory	Designation of Signatory	City	Project Location
Residential – Single Dwelling	DDIR Architecture Studio Pvt Ltd	Dominic Dube	Principal Architect	Bangalore	Hyderabad
Commercial Workplace – Small	Collage Architecture Studio	Swapnil Valvatkar	Director	Bangalore	Bangalore



Adithi Shetty receiving IIID Anchor Award 2012.



Anshul Chodha receiving IIID Anchor Award 2012.



Swapnil Valvatkar receiving IIID Anchor Award 2012.



Tushar Vasudevan - Multiple Award Winner of IIID Anchor Award.



Sachin Shetty receiving Momeny from Nandini Shankar.



PM Kulkarni giving memento to Dominic Dubey.



Kiran Venkatesh & Bindu Madhav.



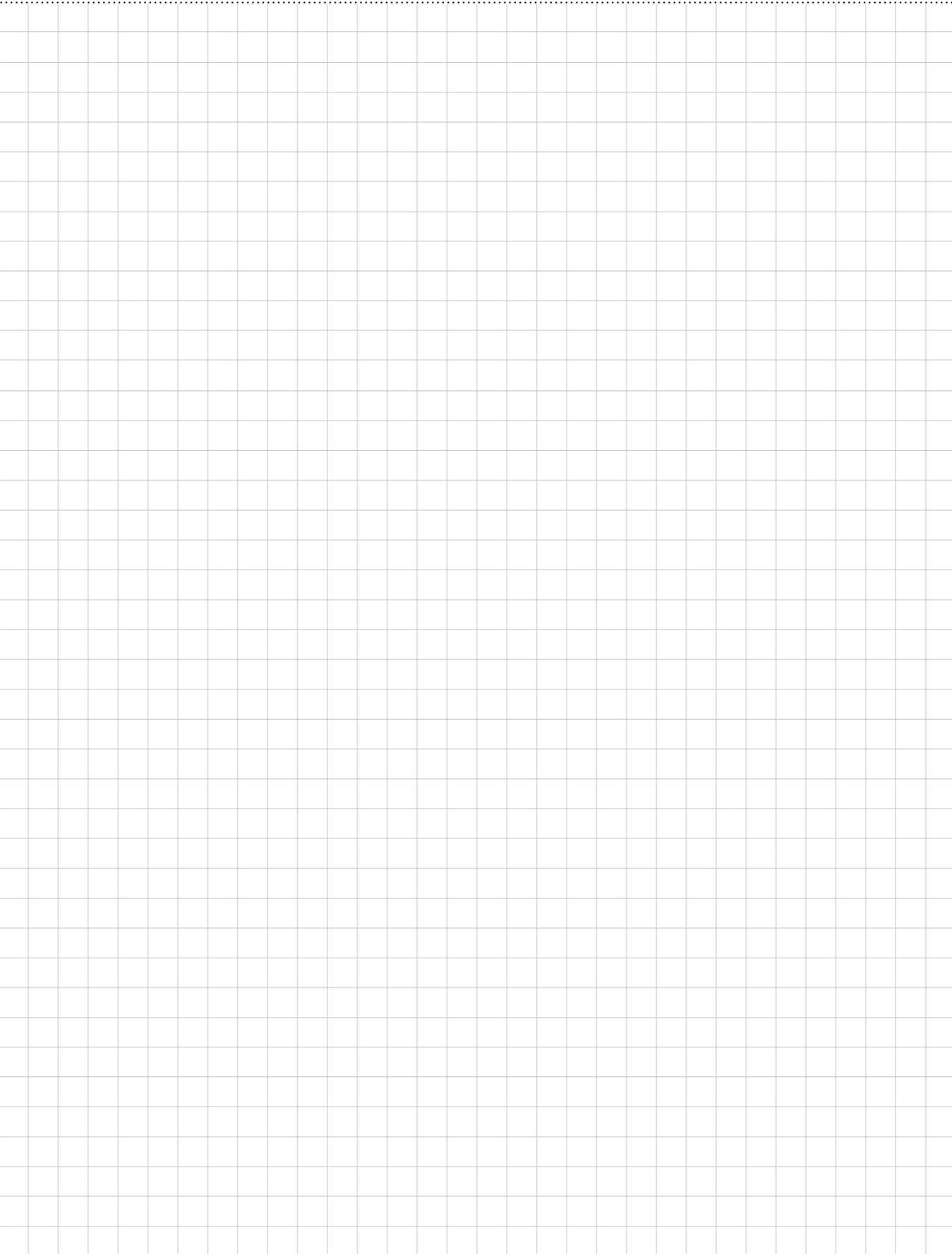
George John receiving Memonento from Gitanjali Kishan.



Gayathri Shetty receiving Momeno from Leena Kumar.



Anchor Awards Committee Members - Bimal Mistry, Leena Kumar, Tushar Desai.



Contemporary Lighting

LED

LED

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LED

Creativity

Simplicity

IP65

IP65

Consistency

Value for Money

LED

IP65 LED

Tulip

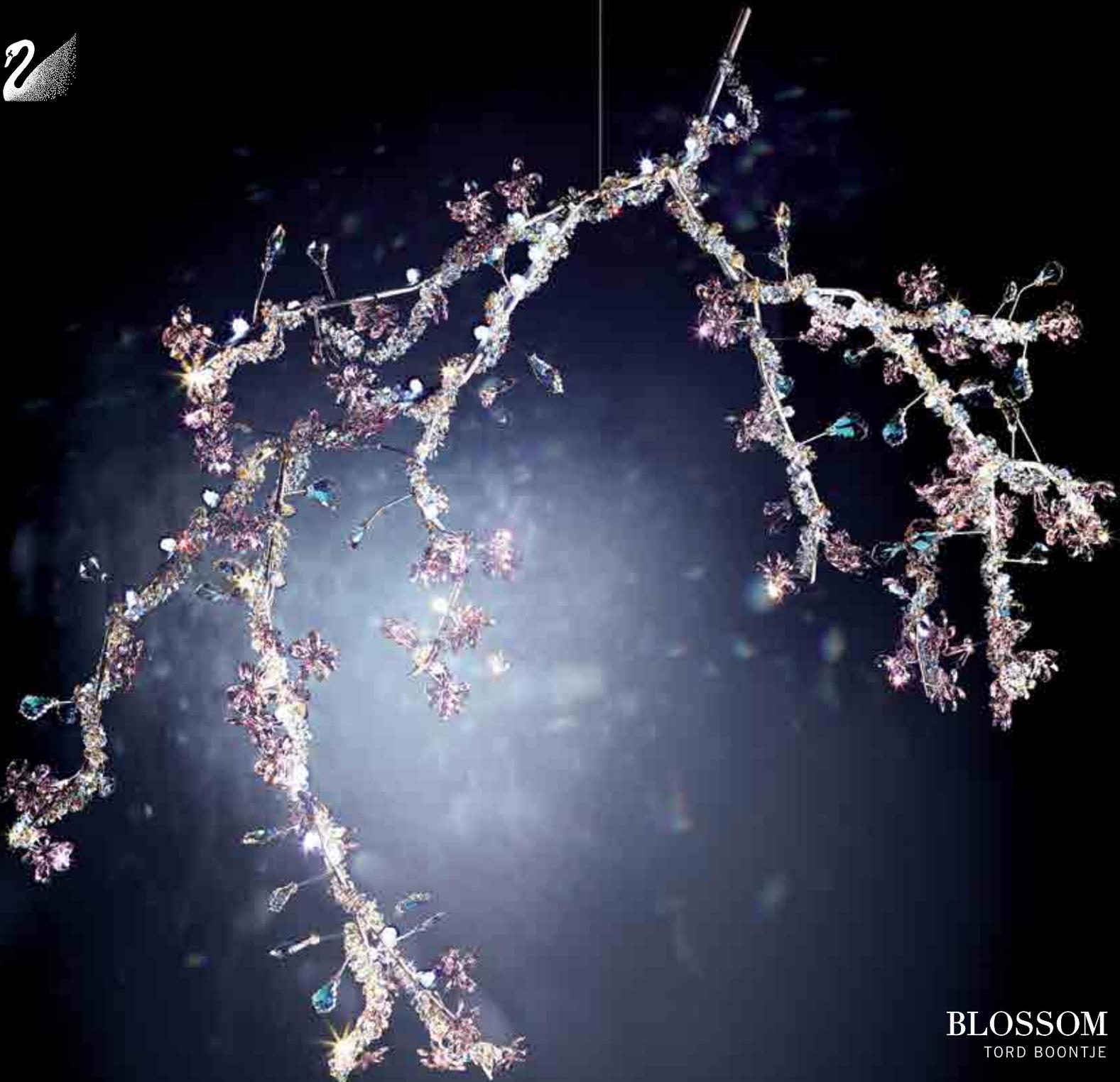
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Tulip Corporation



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