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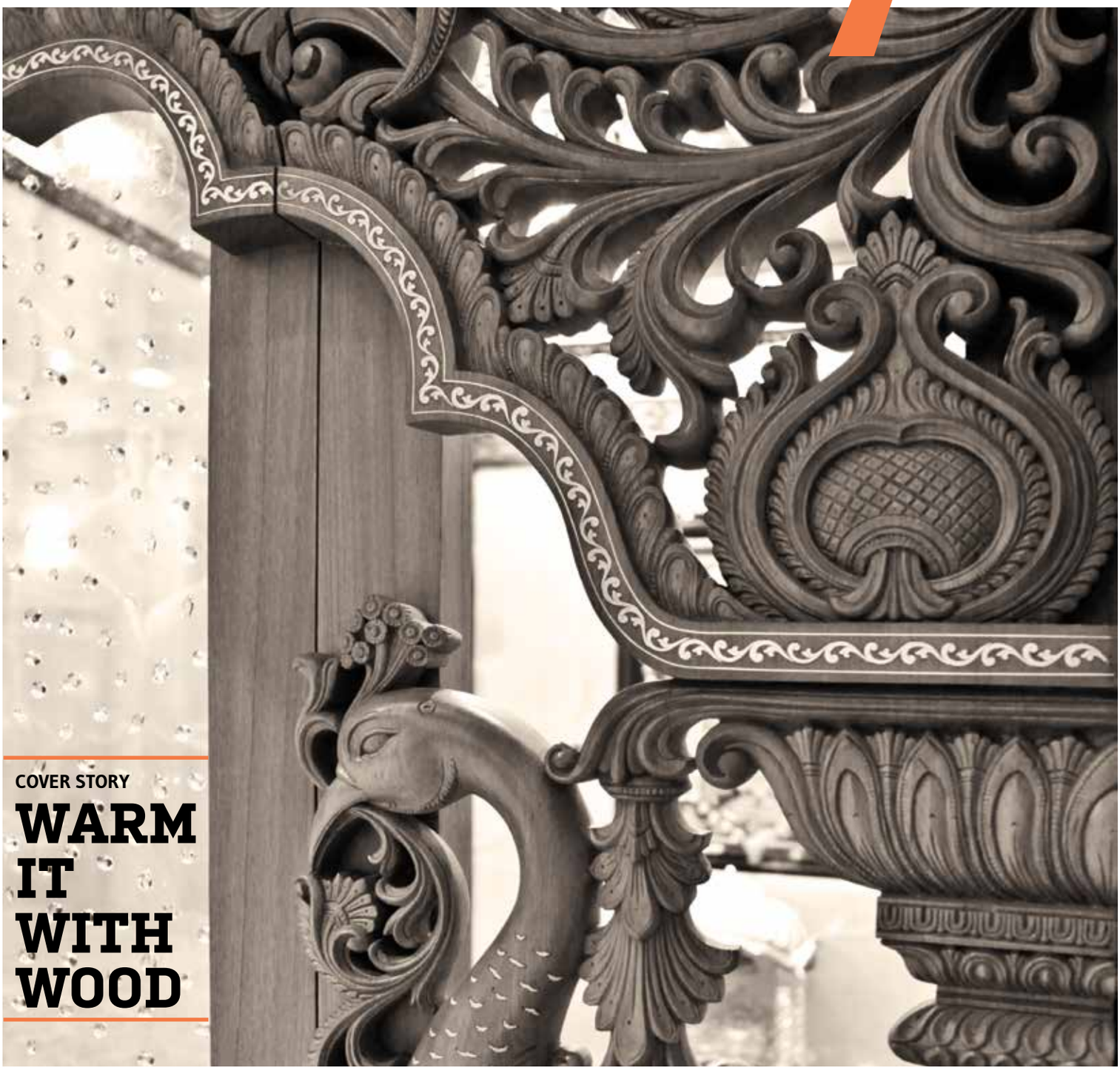

COVER STORY

WARM IT WITH WOOD

INDUSTRY FEATURE

DECORATE IT WITH PLYBOO

MASTER STROKES

C N RAGHAVENDRAN

IIID BANGALORE REGIONAL CHAPTER

INSTITUTE OF INDIAN INTERIOR DESIGNERS
Bangalore Regional Chapter

CHAIRPERSON'S FOREWORD

Dear IIID Bangalore Chapter members,

Despite the rains through Diwali holidays, the festivities continued unabated with friends and relatives meeting and celebrating. The month of September saw a scintillating presentation by Architect Tanuj Goenka from Kerry Hill Architects, enthralling the audience.

Bangalore Chapter members also had a fun filled day out in a farm house with games and activities, giving an opportunity to members to spend the day interacting and relaxing.

We look forward to the Design Festival Bangalore, planned for the first week of February. The design festival will serve as a celebration of design in Bangalore with an eclectic range of events and exhibits planned. Your active participation can turn this event into an annual one with the focus on 'Design for the masses'. Volunteers are welcome to email us or connect on Whatsapp at the earliest.

The NATCON at Indore is not far away, coming up soon after the planned design festival. The IIID awards are also round the corner. So send in your entries without further delay as the last date is November 30th.

Look forward to an exciting two months!

Gayathri Shetty
Chairperson IIID BRC, 2014 – 16
gayathri@gnarchitects.com

IIID BANGALORE REGIONAL CHAPTER

IIID Bangalore Regional Chapter Emblem

The letter form B and its mirrored version together form this symbol. The idea is inspired by the forms of Rangoli. Bangalore as a city is a unique combination of the traditional and the contemporary. This coexistence of dual cultures is iconic of Bangalore as it is present in arts/architecture and the general landscape of the city and its culture. Using Rangoli (Traditional) as the basis, we have created letter form B (Modern) and reflected this form to enclose the space in between (Interiors). The colour palette is also representative of the traditional and modern.

EDITOR'S NOTE

The festival season of Diwali saw environment consciousness percolating to lower age groups than earlier with youth making a conscious attempt to address ill effects on environment by cutting down on mindless noise and smoke pollution. The festivities witnessed not merely reduced noise levels and smoke from crackers but also their manufacture in better environmental conditions that eliminated the use of child labour.

The Antarya team salutes such people and their efforts and continues to support products that are non-polluting and environmentally safe. Not surprisingly, this issue focuses on wood alternatives and their applications. The wood industry has increasingly become conscious about cutting trees with countries in the west keeping strict tabs on the number felled and saplings planted to replace the same.

Antarya has added digital circulation along with the hard copies and our current digital circulation is over 3000 copies. Our forthcoming issue will focus on stone and the way this wonderful natural material has served to aid the structure and aesthetics while remaining an environmentally friendly option.

Do keep posting articles and suggestions. Antarya is your magazine and we need your participation to continuously make it better.

Dinesh Verma
Managing Editor
verma@acegrouparchitects.com

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INSTITUTE OF INDIAN INTERIOR DESIGNERS
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IIID BANGALORE REGIONAL CHAPTER

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Intricate wood carving in the puja area of a private residence

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REVIEW
Antarya is an innovation in Interior Design magazines. Topics covered in each issue are in-tune with the latest trends and styles. There is also an exclusive in-depth research on new products. This helps to give us an insight into the existing and new market requirements and how to find better solutions to design issues.

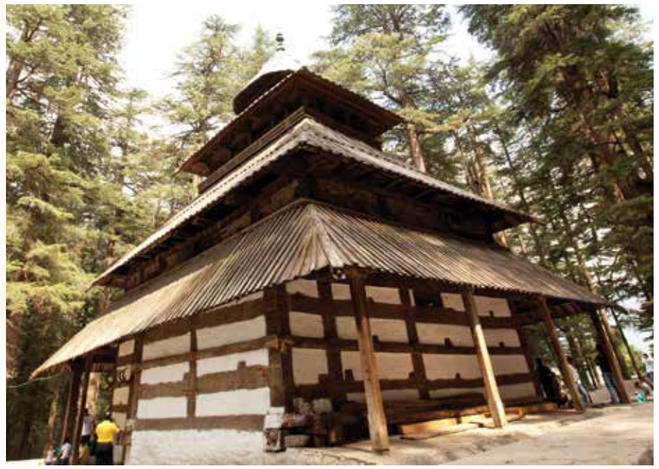
Architect Sheela Sriram

WARM IT WITH WOOD

The aesthetics offered is classic, the mood warm, beauty and decor timeless. Wood has found its presence in interiors from time immemorial. Be it a thatched space, a stone house, where wood prevailed in its raw form, manifesting as rafters, simple shelves, bark seats to the Victorian period where wood was displayed in its magnificent glory to the current times where it prevails in its contemporary form, wood has served to be an integral part of an interior.

By Nandhini Sundar

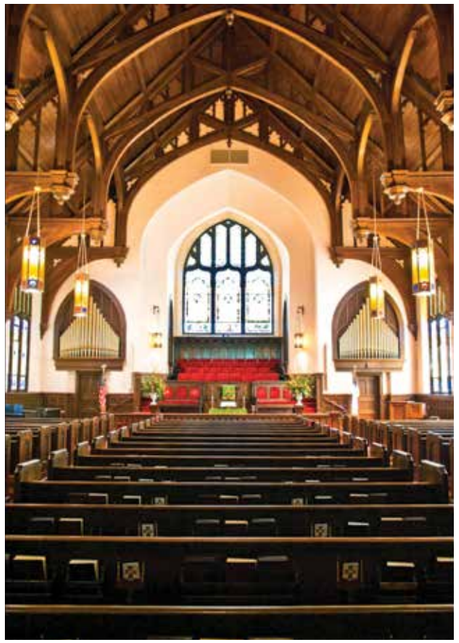
Functional as well as aesthetic, wood serves to bring in the language of the exteriors into the inner spaces, the warmth and closeness with nature strong in its presence while connecting one to an almost deeper meaning of life. While its earliest manifestations were more in the structural form, materials like stone replacing its structural quotient moved its use to finer elements such as interior functional items, be it as furniture, household dishes, tools, or as exquisite decorative features in the form of finely carved interior accompaniments.



AS BEAMS AND TRUSSES

A structural framework designed to bridge the gap between the room and the roof, timber trusses and corbels essentially served as a support for roofs. Occurring at regular intervals, the trusses are linked by longitudinal timbers such as purlins. The timber roof trusses were a medieval development. While modern buildings need no such structural support, these manifest as decorative elements in the interior, bringing in a Victorian or medieval flavour or merely a sense of warmth through their presence. Contemporary structures reveal wooden ceilings where the wood features as a decorative panel rather than as trusses and beams.

Photographs by: Mahesh Chadaga
Facing page: *Hemis Monastry, Leh*
Left: *Hidimbi Devi Temple, Manali*



Photograph by: Robert S. Donovan; *Trinity United Methodist.* www.flickr.com/photos/booleansplit

Photograph by: Elliott Brown; *Selly Manor.* www.flickr.com/photos/ell-r-brown

Photograph by: Paul VanDerWerf; *The Portland Company.* www.flickr.com/photos/pavdw

Photograph by: Golf Resort Achental Team; *Finnische Sauna.* www.flickr.com/photos/chiemseehotel

PANELLED WITH WOOD

Panelling came about essentially to make the interiors of a stone building more comfortable where the wood served as insulation. Wealthy Tudor houses had their walls panelled with oak to keep the draft out. Modern buildings use this more as a decorative accompaniment. Panelling can be extremely ornate, such as in wainscoting and boiserie, associating with seventeenth and eighteenth century interior design and Victorian architecture in Britain. Wainscoting pertains to lining of walls originally with a species of oak. The timber used currently has changed but the term continues. During the 18th century, the panelling altered to cover merely the lower part of the wall rather than from floor to ceiling, prompting the continuation of this term. While the initial purpose of wainscoting was more functional, it has now moved on to be merely a decorative feature.

Ornate and intricately carved wood panelling, referred to as boiserie, became popular in the seventeenth and eighteenth centuries with French interiors, the Palace of Versailles serving as fine examples of them. These panels go beyond the walls, to decorate doors, frames, cupboards, picture frames. Panelling continues to be popular in contemporary styled interiors though the manner of panelling is different, sans ornate finishes.

Photograph by: Damien CORBY. www.flickr.com/photos/125664675@N06

Photograph by: Timber Floors; *Benchmark Homes & Timber Floors.* www.flickr.com/photos/timber_floors

A WOODY STAIRCASE

Staircases in wood prevailed in lavish style in the Victorian period, the structure built to literally serve as an imposing interior element in the large houses. The Victorian wooden staircases hosted a wealth of details and embellishments in total contrast to the prevailing sleek wooden staircases of contemporary style. The wood was heavy in feature, manifesting as imposing handcrafted railings as well as heavy hardwood treads. Contemporary styles still opt for wood to bring in warmth and richness to the décor though the presence of wood is not heavy, teamed as it is with metal, glass, natural stone like marble and granite.

Photograph by: Cliff; *The Grand Staircase.* www.flickr.com/photos/nostri-imago

FLOORED WITH WOOD

Hardwood flooring began in the 1600s where they featured as unfinished planks placed over dirt or stone supported by wooden joists. These transformed to display elegance during the Baroque era where artistic French Parquetry and marquetry patterns appeared. Here the floor was made of pieces of wood cut by hand and fitted together in contrasting three dimensional patterns. Polished to sheen, these wooden floors could be afforded only by the affluent and royalty.

Wood flooring existed amongst American colonists as planks without much regard to style, with the accent purely on comfort and practicality. These were cut at random width, left unfinished and wore smooth over time with use. Late Victorian era saw some of the wealthier homes opting for European parquet floors when factories started mass producing wood floors. The Edwardian era, with the advent of tongue and groove construction, permitted the wooden planks to be levelled before installation to give a more polished and uniform look. Wood flooring is popular in contemporary interiors, bringing warmth in a straight lined décor.

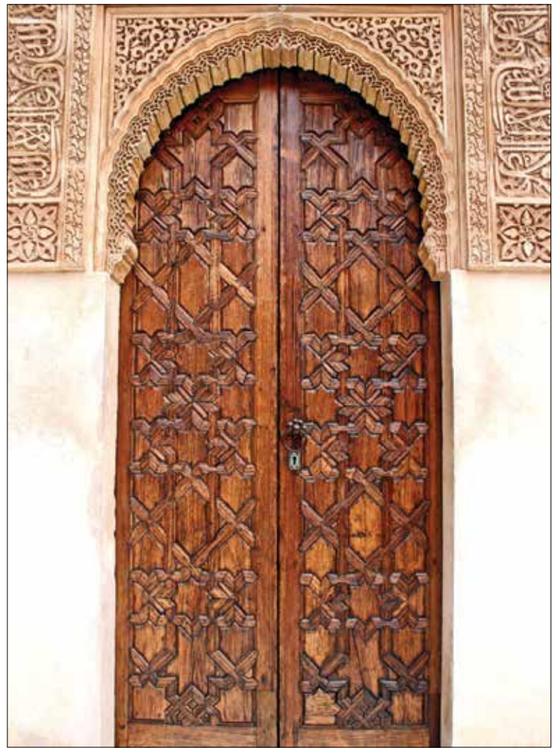
Photograph by: Wikicommons; *Roosevelt Dining Room.*

FURNISH IT WITH WOOD

Wood manifested as furniture in very basic forms in the medieval period with use of wooden chairs being minimal even in rich households. Stools and benches were the norm with tables and chests doubling up as beds. The 16th century saw more furniture though it continued to be basic. The common oak wood furniture was heavy and massive, built to last generations. Late 17th century saw the emergence of more comfortable and finely decorated furniture, with oak being replaced by walnut and mahogany wood. Inlays in wood were popular as was lacquering. Chests of drawers, bookcases, grandfather clocks, arm chairs were popular furniture seen during this period.

Upholstered wood furniture came into vogue in the 18th century with many incorporating inlay work. The Victorian period saw for the first time mass production of furniture. The furniture too was elaborate in its carvings, size as well as in its variety and finishes. While the beginning of the 20th century saw the best furniture being placed in the formal living area, towards the middle of the century, the style of furniture altered to permit architects to intervene in their style, patterns and varieties. Geometry found its way in copious measure to replace the earlier style of flowing lines.

Photograph by: Ania; *Old wooden armoirs and cabinets.* www.flickr.com/photos/mytidbits



ARTY WITH WOOD

Wood carving has prevailed from the very ancient times, be it on furniture, doorways, figurines or even tools that served functional purpose. The Egyptian period saw life in many forms manifesting as carving in furniture, in items of everyday use. Be it as animal heads or feet in legs of chairs, incense ladles with handles shaped as bouquet of lotus flowers, mirror handle shaped as lotus stalk, wooden spoon shaped like the neck of a goose, art with wood prevailed in abundance in the items used and displayed in the household. Wood carving prevailed in similar fashion till the 11th century, with the celebrated carvings emerging on doors and panels in the succeeding centuries.

The epoch wood carving reached its culminating point by the end of the Gothic period. Carving manifested also to bring forth devotion, the delicate carvings manifesting in religious structures. The forms during this period were more of the foliage variety, reflecting nature. The canopy work of the choir of Winchester with its exquisite carvings of oak and leaves is a fine example. So are the choir stalls of Ely and Chichester, the tomb of Edward III in Westminster Abbey.

Photograph by: Andrew E. Larsen; *Wooden door.* www.flickr.com/photos/papalars

Sandalwood carvings. www.realbharat.org

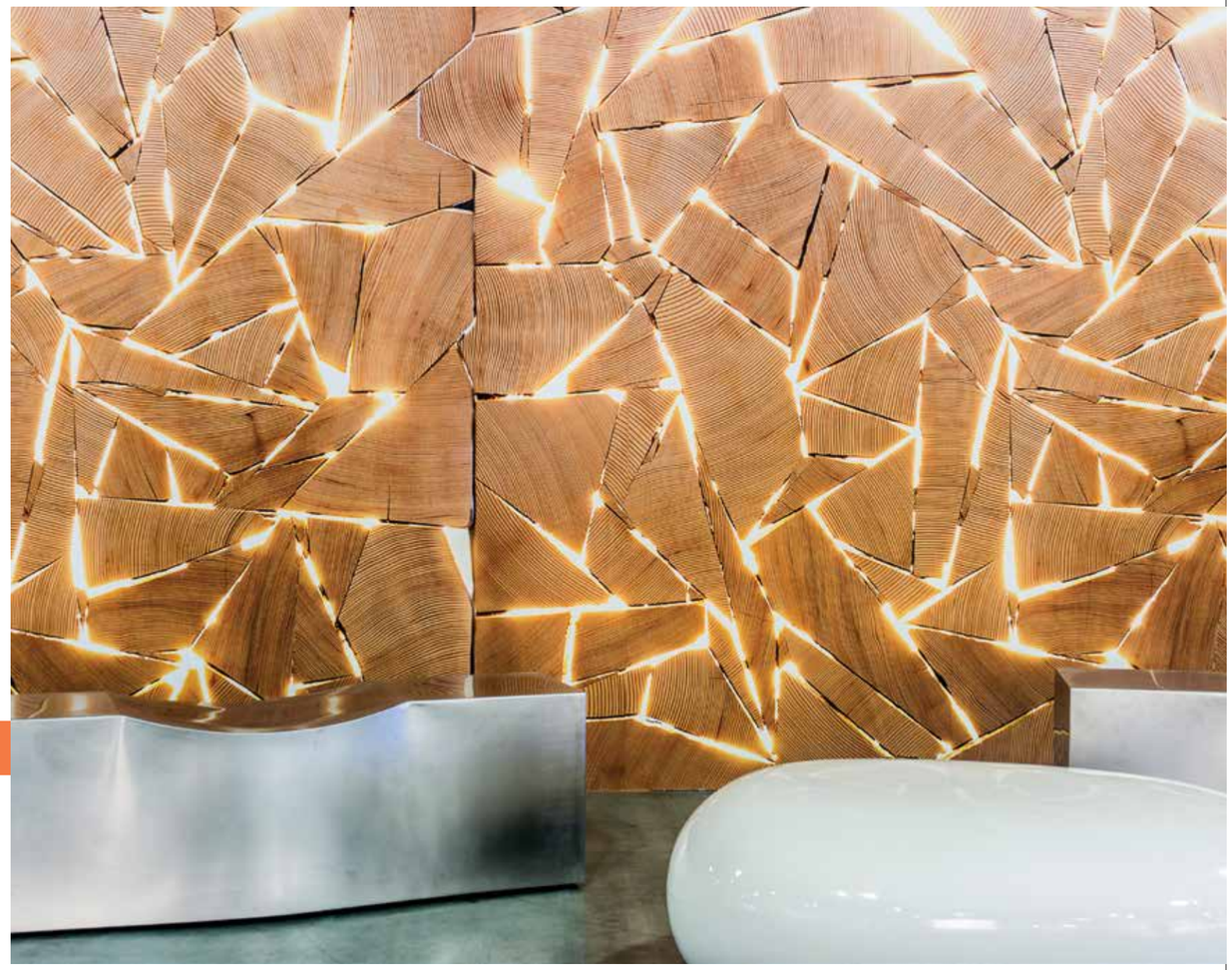
Sandalwood carvings

Photograph by: Mahesh Chadaga; *Hemis Monastry Prayer Wheels, Leh*

THE VERNACULAR INCLINATION

The Indian subcontinent is renowned for its wood carving that has prevailed over centuries. The ancient Hindu temples display exquisitely decorated doors, ceilings where teak and other types of wood were carved to extreme richness and intricate elaboration. The doors of the temple of Somnath are fine examples of some of the exquisite carving that happened in the Hindu dynasty over the centuries. Not only did wood carvings manifest on ceilings, doors and *Jaalis* in palaces and rich households during this period but also in cabinets, cots, camphor wood boxes used to store clothes, sandalwood jewellery boxes, chairs, tables, sculptural figurines.

Vernacular flavour of exotic wood carving continues to prevail in modern spaces too in the form of artefacts, cabinets, chair and tables, even doors, on staircase railings, though it is more toned down to merely serve as a decorative highlight.



Photograph by: Sebastien Panouille; *Lighting wood wall.* www.flickr.com/photos/anaphken

CONTEMPORARY LEANINGS

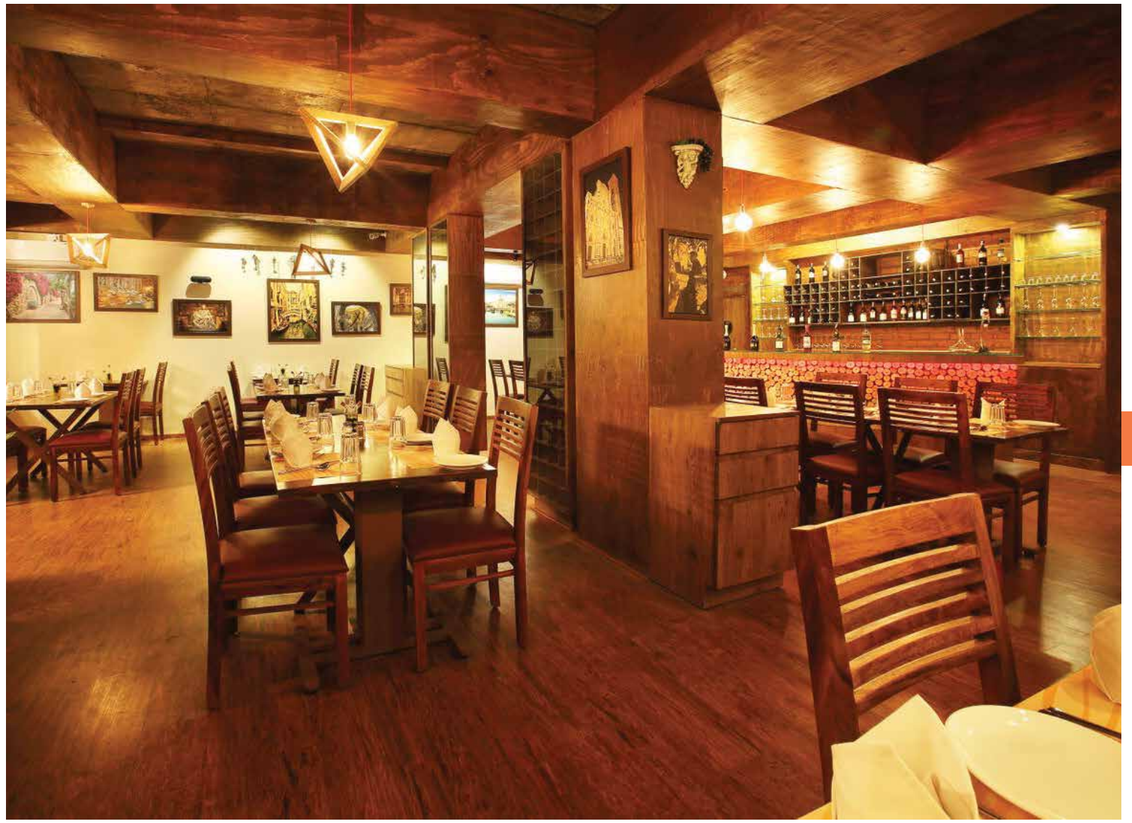
Wood prevails in contemporary styled interiors in equally copious measure, manifesting as flooring, panelling on walls, ceilings, as decorative trusses and beams, in cabinets as well as furniture. But unlike the rich classical tones, the style here is straight lined sans the carvings and intricate elaborations. The wood colours opted are more inclined to be lighter as compared to predominantly darker leanings of classical times and is often used in fusion with other materials such as metal, glass, stone. The lack of elaboration as well as the preference for lighter tones tends to make a contemporary styled woody interior less heavy on the eye.

Photograph by: Jeremy Levine; *Flexible space with recycled wood flooring.* www.flickr.com/photos/jeremylevinedesign

KAVITA SASTRY

A RUSTIC INCLINATION

The presence of wood is not only warm but can be overwhelming too, transforming in totality the language of the décor. **Architect Kavita Sastry of KS Designs** opts for a large expanse of wood in its raw unpolished form to offer an arresting rustic tone.



The rustic Italian theme is brought out with the raw finish pine wood clad interiors. The heavily wood clad interior is deliberately given the unfinished look with the wood left unpolished, teamed as it is with exposed brick and concrete to accentuate the rustic décor.

LEENA KUMAR

EXOTICA IN WOOD

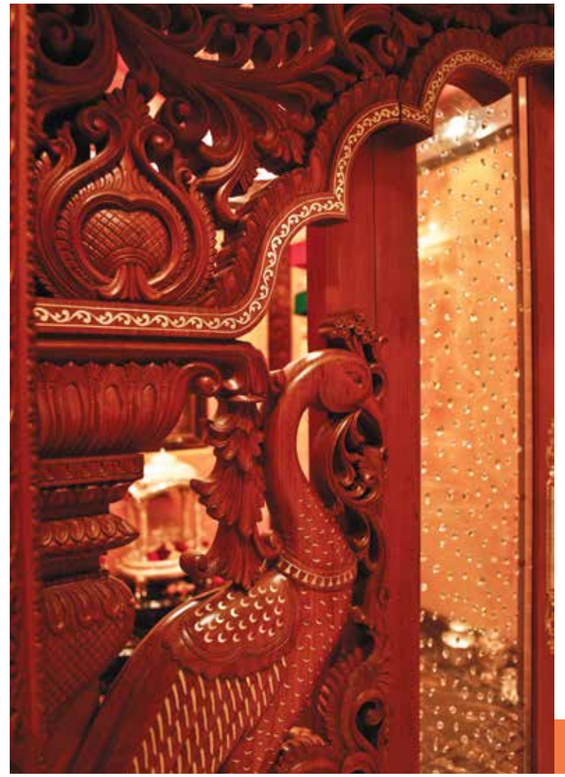
A traditional inclination in décor offers the charm of yesteryears, a nostalgic reminder of the artistic leanings that prevailed. **Architect Leena Kumar of Kumar Consultants** brings in the richness of wood with a strong traditional flavour in a contemporary setting, the elements in design serving as a salute to the exquisite skills of our local craftsmen.

Top: The sloped wooden roof lends a strong vernacular flavour to the living room, accentuating the richness of the décor. The extensive play of wood in rest of the décor further complements the lavish setting.

Facing page top left: The circular motif on the ceiling and floor complements the large arch that opens the space to the outdoors. The extensive play of wood enhances the beauty of the space, lending warmth as well as grandeur.

Facing page top right: The exquisitely carved peacock and the intricate carvings seen above it in the *puja* area serve as a *jaali* to counter the closed door featuring in the space. The absence of the traditional *jaali* in the door is compensated by the delicately carved motifs that offer an open feel.

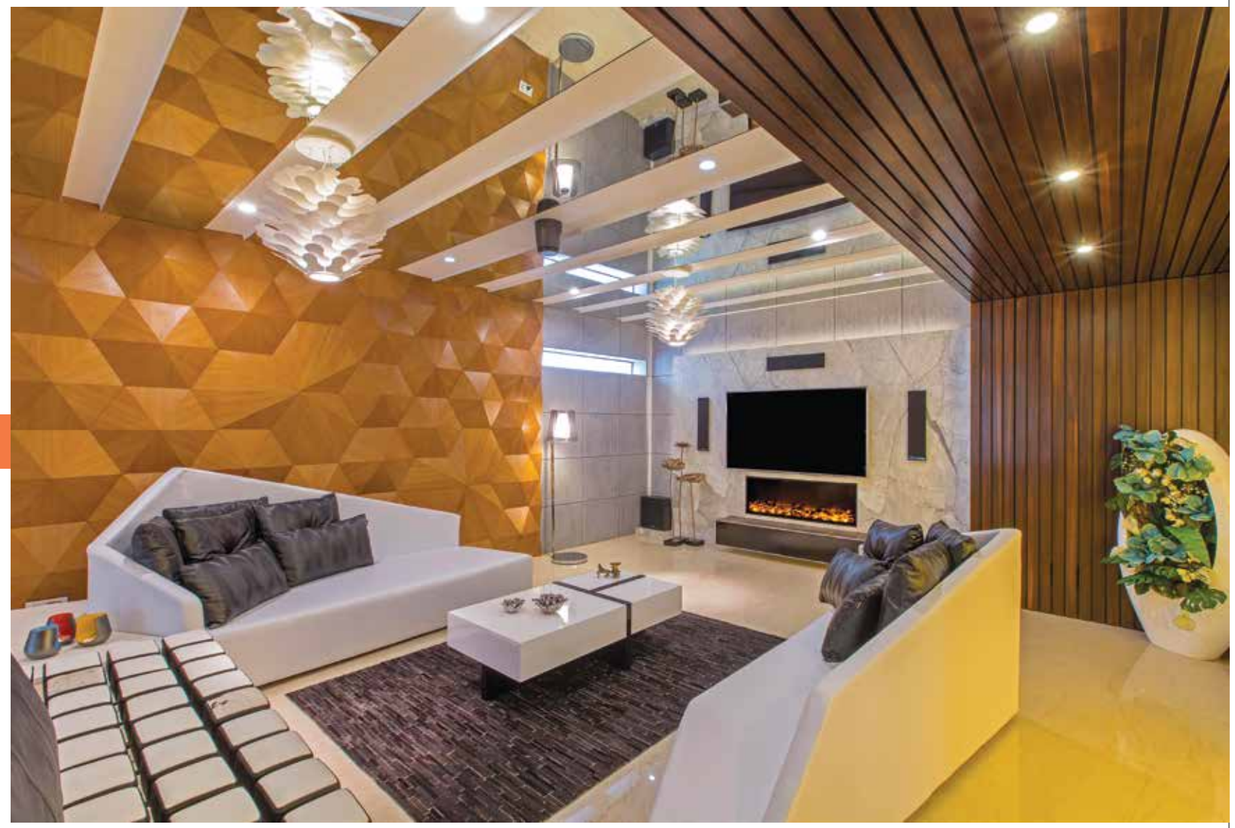
Facing page bottom: The splendour of the mural takes on a different quotient when teamed with wood, the wood manifesting as a luxurious frame, making its highlight statement more pronounced.



GITA RAMANAN

A CONTEMPORARY EXPRESSION

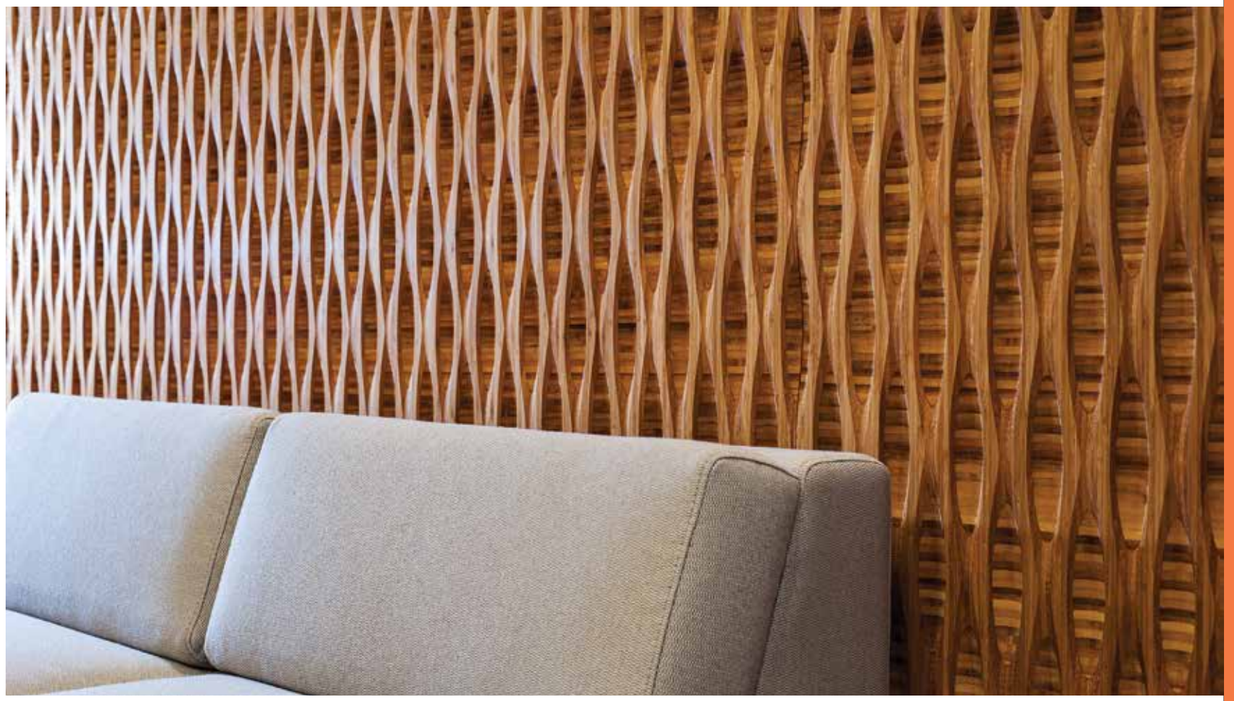
Presence of wood even if it be as stunning accents can alter the tone of a décor. **Architect Gita Ramanan of Design Café** infuses the warmth and charm of wood in a contemporary setting, using it as a highlight to heighten the magnificence of the space.



The three dimensional wall art displaying geometrical form serves as the backdrop for the seating area in the living room. This light colour textured surface and geometrical dimensions features as a contrast to the darker shades of linear wood panelling on the ceiling that extends thence to the wall.

Right: The stainless steel dining table and complementing set of chairs contrast stunningly with the dark colour linear wood panelling.

Bottom: The hardwood rustic flooring in the bedroom serves as an arresting décor element complementing the white brick wall that forms the backdrop while teaming enchantingly with a similar rustic finished cot and matching wood clad beams in the ceiling.



DECORATE IT WITH PLYBOO

Wood has always had a special place in the interiors of a space, bringing in warmth and beauty. Be it flooring, furniture, as cladding on walls, rafters on the roof, wood has been used in multiple ways over centuries, transforming the ambience while offering functional value. The type of wood used has however varied based on location, culture as well as sustainable sensitivities. A wood-like material that has oft been resorted, both in structure as well as interiors for its rapid renewable feature, strength and aesthetics is bamboo. The characteristics of bamboo have increasingly been recognised over the years, prompting industry to look at this source of wood to offer interior solutions.

Top: *Stantec Architects, Plyboo Reveal Collection: Style C5*
Bottom: *BanQ restaurant – Plyboo Neopolitan Flooring & Plywood*

Raw Bamboo Culm

WHY BAMBOO?

When a variety of hardwood options are available with their exquisite grains to add character and exotica to a décor, why use bamboo; a question that is likely to emerge in many a design desk. This is especially so when encountering the expanding bamboo industry globally. The prime reason put forth is its heavy sustainable character, with select varieties such as Moso bamboo having an optimal five year growth cycle. Given that harvesting happens by hand, heavy equipment that might impact habitat is also eliminated. With the capacity to be harvested without replanting, bamboo regenerates annually. This makes it an environmentally as well as economically sustainable option.

Besides its rapid renewable qualities, bamboo, with its rhizome root structure, has the ability to hold loose soil in place, thus negating erosion. With no added fertilisers, pesticides or even irrigation, bamboo can absorb 70 per cent more carbon per year than a hardwood forest; valid reasons why this wonder plant should be more seriously looked at as an option for a wooded interior.

The second question which is likely to be quickly posed is the type of usage and applications that bamboo can be subjected to. From its origin as raw material for building or for fabrication of simple structures, tools, baskets, furniture, hand crafts, bamboo has come a long way to serve as flooring, plywood, veneers, bicycles, even fabrics and additives for food and cosmetics. This has opened up a massive opportunity for the cultivation, harvesting and use of bamboo in a varied range of fields.

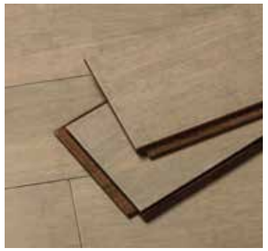
Plyboo LinearLine Collection Style: LL4

EXPLORING THE BAMBOO OPTION

Knowledge of local conditions, interaction with local people, especially the farmers, the processors, manufacturers for a sizeable period can offer an insight that will surpass one acquired through academic learning. **Smith & Fong,** founded in 1989, did just that, rubbing shoulders first with the local population and conditions to better understand ground realities in the practical sense before venturing into the myriad options this exotic, rapidly renewable plant had to offer.

Convinced that bamboo was the best solution if social and environmental challenges are to be addressed while continuing to offer beauty as well as functional requirements of an interior, Smith & Fong began the first exploration into laminated bamboo with bamboo boxes, where form and function were integrated, offering a container that was functional as well as aesthetically pleasing. This was of course the beginning of a spectacular adventure that has continued to this day.

Prefinished Stiletto Brushed Pearl Click Lock flooring



Prefinished Stiletto Dune Click Lock flooring

Prefinished Flat Amber Bamboo flooring

Prefinished Stiletto Brushed Sahara Sand Click Lock flooring

Prefinished Neopolitan flooring

Prefinished Flat Grain Palm flooring

Prefinished Red Palm flooring

Prefinished DecoPalm flooring

Newsom Law Offices – Sugar Deco Palm panels

In about four years, what started as a box making exploration, transformed into offering flooring options, where the demand met was so intense as to exhaust the manufacturing of their first unit in Taiwan. There was of course no looking back, with the firm moving operations to China where a tea processing plant was converted into a factory to process bamboo flooring.

Back in the headquarters in San Francisco, Smith & Fong had to change the business model to begin distributing the first bamboo flooring in the United States under the Plyboo brand. Bamboo plywood had found its way into the American market. The next decade was spent developing and perfecting new sizes, applications for their bamboo plywood lines.

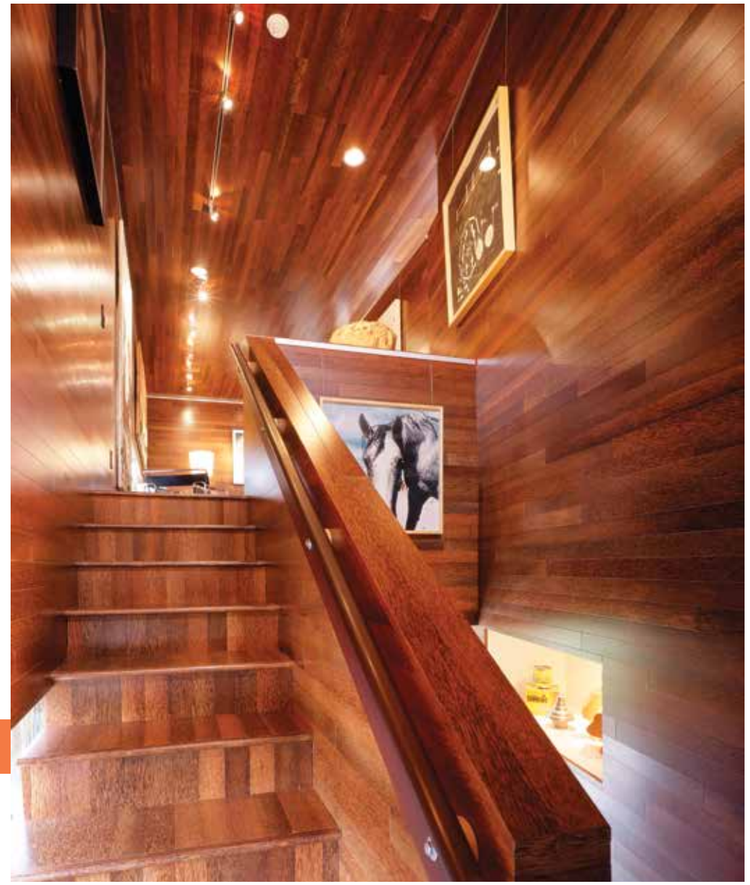
ACCENT IS SUSTAINABILITY

The accent undoubtedly is on environment sensibility and sustainability; the manufacturing process not surprisingly pursing this line to the minute detail, without sacrificing quality or design aesthetics. The bamboo forest is naturally sustainable and this feature can be retained by opting harvesting practices developed over centuries. Smith & Fong does just that.

Further, to validate the legitimacy of the forestry practices pursued, certification of the Moso bamboo forest in China was sought from the Forest Stewardship Council (FSC) and was duly received. Thus, Smith & Fong became the first bamboo company to offer FSC certified 100 per cent bamboo plywood, flooring and veneer options for the North American market.

But that was not the only sustainable practice sought and certified. Smith & Fong recognised the serious concern prevailing with regard to indoor air quality as a result of formaldehyde presence in wood-based products. An alternative adhesive was sought that would be formaldehyde-free, in manufacture of both bamboo as well as palm plywood and flooring products. Soy-based formaldehyde-free as well as other zero-formaldehyde resins were thus adopted, offering a product that is acutely sensitive not just to environmental concerns, but also to the health of the users.

Once again, Smith & Fong was the first bamboo company to offer soy-based formaldehyde-free adhesive system, surpassing the emission requirements and setting a new standard for clean industry. Incidentally, the bamboo and palm products are also put through California Section 01350 testing, currently the most stringent off-gas testing protocol available anywhere. Smith & Fong is also an ISO 14001 certified company, a world standard in environmental control protocols. It also goes one step further to ensure the packaging materials are either recycle-able or made of reused, recycled materials.



George Yu, residential – Flat grain plam flooring and plywood

AN EXPANDING PRODUCT LINE

It was year 2000. Smith & Fong decided to venture into a varied option of bamboo for flooring, the Strand line. Strand differs from the typical bamboo flooring in terms of not being cut into strips and laminated. It is instead thrashed and pressed into dense logs where the logs are sliced and fabricated into flooring or plywood, creating a harder, denser material, hosting an entirely new bamboo aesthetic.

The next year saw the product line expanding to encompass a totally new material besides bamboo; coconut palm. Durapalm, the brand producing the coconut palm plywood, panelling and flooring given the high level of environment sensibilities of the company, harvests for its manufacturing unit only wood from palms that no longer yield fruit. Since renewable characteristic is the other plank on which Smith & Fong firmly rests, every harvested coconut palm is replaced with a sapling.

Today the company is exploring how high tech manufacturing solutions such as lazer cutting, high frequency and CNC (computer numerical control) can create new and exciting expressions in natural materials. Smith & Fong's Reveal, Sound and Linear Lines are the fruition of these efforts.

University of Alaska Anchorage – Plyboo Edge Grain Amber plywood

AN ECLECTIC RANGE

Smith & Fong through its Plyboo brand, offers a varied range of products to address the differential expectations of the discerning customer. Be it wall solutions, cabinet grade plywood, flooring and accessories, veneer, underlayment systems or just plain bamboo lumber, the range on offer is eclectic, spoiling the buyer for choice.

WALL SOLUTIONS

The range on offer is four different types of solutions, each striking in design. The **Linear Collection** is entirely made of carved Plyboo bamboo panels where the panels are vertically fluted, the face of the board revealing its vertical lines as well as exposed core, some resembling a handloomed, woven textile. Both colours and pattern mingle and play making these designs distinctive and inviting.

The **Reveal Collection** is a series of textured bamboo panels that are high on aesthetics, bringing in a three dimensional depth into the walls with an arresting texture that is stunning in portrayal. The multiple patterns of the texture create a statement of exotic manifestation of the natural grains of bamboo to leave the viewer captivated. Given the striking looks, the Reveal Collection is a great choice for a highlight wall or a background décor.

The warm presence and look of wood is certainly no match for fabric. Layering the walls with wood in spaces requiring acoustics may seem counter intuitive, yet the **Sound Collection** offers just that, addressing both aesthetics as well as meetingacoustical requirements. The variously shaped holes in the panels not only lend a pattern that is contemporary and attractive but offer functional value by absorbing the sound to serve as buffer.

Texture and grain is always a fascinating aspect of wood, but when it comes to palm there is something really magical about it. The **Palm Collection** offers just that, bringing both textural and depth to a wall system. The unique look and feel of palm wood makes an unquestionable aesthetic statement.

Plyboo Reveal and Linear lines collections

CABINET GRADE PLYWOOD AND VENEER

Plyboo plywood is a remarkably versatile product that has been used in both residential as well as commercial projects as cabinetry, walls and ceilings, store fixtures and free standing furniture pieces. The applications are as diverse as the environments which have included universities, government buildings, airports and healthcare institutions, major hotel chains, retail stores and fine restaurants.

Plyboo comes in five colours and three grain patterns and can be stained to match any colour as well. For example the **Edge Grain** that comes in an amber or natural tone, is linear and architectural where the flat grain evokes more the traditional bamboo look and feel. And then there is the **Stranded Bamboo** that engages a different manufacturing technology that produces both a different look as well as a denser, harder material. The most striking of these is the **Neopolitan** that resembles a tiger's strips and makes for a bold statement wherever it is used.

Plyboo can be cut and sanded with conventional equipment and can be glued and fastened similarly to other wood products. The veneer is manufactured by either sheet-slicing or re-sawing and is offered in thicknesses from 0.6mm to 2mm. The colour options for the veneer include amber and natural tones.

A WIDE RANGE OF FLOOR OPTIONS

The warmth of wood on bare feet is without doubt an eagerly sought comfort. As for the visual appeal, the beauty is incomparable. A varied range of floor solutions are on offer, each seemingly better than the other, making the choice most trying.

COVER STORY
INDUSTRY FEATURE
ANTARYA

Jasper Technologies, Inc. Plyboo Reveal Collection, Style C9

Plyboo Stiletto, one of Smith & Fong's contemporary releases in bamboo flooring, is the strongest and most durable addition to their flooring range. As the name indicates, the strength of the plywood is so intense that it is offered as a stiletto proof wood flooring solution. Stiletto incidentally is manufactured to be three times harder than traditional red oak flooring, making it a most sought as well as most appropriate flooring solution for residential as well as retail applications.

With the click-lock technology, Stiletto is easy to install. It also has the facility to be glued on to **PlybooQuiet** and **PlybooFit** underlayment pads. It has also been proven to abate noise, relieve leg stress in retail and fitness environments.

Perhaps one of the most popular alternatives to hardwood flooring, **Plyboo Edge Grain** bamboo flooring, with its modern linear look is widely acknowledged for transforming the ambience of the interiors with its elegance. The straight clean lines create an energised, fresh feel irrespective of the nature of décor. Plyboo Edge Grain comes in colours of amber and natural in addition to two stain options of luminous grey and foundation brown. Protected by a durable polyurethane finish, it is ideal for residential, commercial and hospitality environs.

Bringing in variety always adds interest besides offering a wider choice for the discerning customer. Smith & Fong does just that, keeping of course its environment and sustainable sensitivities intact. Thus, **Durapalm**, made from coconut palm and sugar palm, was developed as an alternative to bamboo flooring. The distinctive grains and colours accentuate the beauty of an interior, bringing with it the strong flavours of the tropics that is hard to resist.

In fact, where high style is sought as the language of the interiors, the choice most sought after is Durapalm Coconut and Deco Palm sugar lines. Needless to say, the coconut and sugar used for Durapalm are reclaimed plantation grown palms that have passed their fruit bearing years.

Beauty with exceptional durability is the language of **PlybooStrand** bamboo flooring. The strand technology adopted yields a flooring product that incidentally is three times as hard as traditional red oak flooring. It is thus most suitable for high traffic commercial environments as well as residence where the customer is loath to sacrifice aesthetics to meet durability.

PlybooStrand bamboo flooring comes in various textures and characteristics. The list includes PlybooStrand **Havana, Sahara, Neopolitan** along with its new addition, the **Stiletto.** The flooring line offers a range of stained and matte options to meet the versatile individual interior needs.

While a worked on design can impact the interiors in its own unique manner, an application in the most natural look, where the bamboo is portrayed in its most classic sense, has its own distinctive perhaps unmatched beauty. **Plyboo Flat Grain** bamboo flooring captures just that, the grains left completely natural and classic, the nodes or knots left totally visible. The options are offered in amber and natural colours along with a durable polyurethene finish, aptly suitable for residential, commercial as well as hospitality segments.

UNDERLAYMENT SYSTEMS

Use of underlayment system improves the performance of Plyboo bamboo floors. **PlybooFit** provides this underlayment system where the 93 per cent post-consumer, recycled, rubber padded subfloor unit absorbs the impact of any work out. It can ideally be used in any fitness facility, yoga, theatre or residence. It offers comfort to lengthy standing work pressures by absorbing the pressure on the tired legs, feet and knees. It is especially suitable for those with lighter shoes or bare feet.

Absorbing the sounds on the floor, **PlybooQuietMMS** enhances the living comfort, negating effects of walking, playing or the little knocks of day to day living. It also has a moisture vapour barrier creating an all-in-one underlayment solution. The sound absorbing quality makes it an excellent choice for condominiums and multi-level family homes. It can be used in combination with any Plyboo bamboo or Durapalm flooring product.

C N RAGHAVENDRAN

ROOTED TO THE CONTEXT

By Nandhini Sundar

Soft spoken, almost self-effacing, the gentle smile on his face playing down the remarkable work of the last four decades; winner of multiple awards including the Padma Shri, a strong proponent of green architecture, having been at the helm of the Indian Green Building Council for over a decade. That is **Architect C N Raghavendran** of **CRN Architects and Engineers**, a master designer whose strokes have addressed the context and function where the lines evolved naturally, without fancy trappings, yet created structures that grabbed the attention not only for their design but their sensitivity to addressing the green foot print.

Jawaharlal Nehru Stadium, Chennai

Jawaharlal Nehru Stadium, Cochin

IFMR, Chennai

BSNL, Chennai

On completing his graduation from IIT Kharagpur, Raghavendran went to the University of Berkeley to do his masters. After a one year stint in Boston, he returned to join his father's architect firm which he went on to impact with his striking creativity and design sense. His tryst with the green ideology came when he had to give a speech on environment in the Rotary Club, way back in 1983. "It struck me that we are all only transient occupants and cannot take the environment for granted. It literally opened my vision in my approach to design", he says.

His design of Kalakshetra is one of the first projects that reflect deeply his firm commitment to reducing the carbon footprint. The auditorium with a capacity of 450 seats does not require any air conditioning even in a hot place like Chennai. While there is ample scope for ventilation to let in the cool sea breeze and throw out the hot air, thus keeping the ambient temperature comfortable, the trimmings incorporated in the structure too is kept totally natural. Further, the shape of the roof, the expanse of the interior volume along with the use of natural materials, besides enhancing the acoustic properties, also works to keep the interiors cooler. Given the thick wooded site, the orientation was structured to bring in this natural green space. "My design met with criticism at that time but I decided to go forward with it", smiles Raghavendran.

The IT campus, Tidal Park in Chennai was incidentally the first IT Park of Chennai that permitted the IT companies to begin their journey in the city and repeat the success they had met with in the neighbouring cities. "This was the period when the city was facing severe power crunch and air conditioning became a challenge", he says. The solution was reached by working at reducing the power consumption.

"The AC cooling was to be done at night using off peak reduced power tariff rates by opting for a thermal energy storage system. This system has the ability to store ice banks which are released in peak load periods during mid-day when the tariff is higher. Besides, with outside ambient temperature being lower at night, the cooling was also achieved with reduced consumption of power." Even though the project related to the mid-nineties, Raghavendran had also introduced power saving lighting to further reduce power consumption.

Not only was he one of the early proponents and ardent followers of green ideology, he was also amongst one of those who eagerly sought to experiment with technology and be innovative in their design. The Jawaharlal Nehru stadium that came up in 1992 is a case in point. "A 45000 capacity stadium had to be completed in seven months which ruled out the use of conventional systems. Pre-

Hunter Douglas

ITC Grand Chola Hotel, Chennai

CPL Oragadam Area

Oragadam Peatonal

GE, Pune

Mahindra Aerospace, Narsapura, Bengaluru

cast concrete blocks were resorted to and an 18m cantilever span gallery was built to ensure the view was totally seamless", says Raghavendran.

But here, he was met with a challenge; steel would corrode and concrete for that large a span would prove to be too heavy. He came up with a solution, chose a hyperbolic paraboloid pre-cast concrete structure that was only four inch in thickness. Given the unique shape of the slab, water drainage was automatic.

Similarly, the stadium built for South Asian Federation games in 1995 was to accommodate a variety of sports, but again offered a time span of just ten months. Here Raghavendran worked with steel, treating it to prevent erosion and again coming up with a cantilevered roof that had a span of 60 feet. This incorporated a folded plate space frame that had steel tubes fabricated on it, a design that was not commonly practiced at that time. "Being in steel, it is very light but has an enormous capacity to take load", he says.

His inclination to experiment found its space in a project offered by the Mauritius government. In this award winning project, Raghavendran showed how an intelligent building can run by itself with little monitoring. Based on a 150 acre site, the tech park came up with a signature building that addressed the inclement weather conditions of the region where cyclones were frequent. The design opted had steel braces around the concrete while an atrium in the heart of the building, rising to the top of the 12 storeys, ensured there was enough natural light permeating into the interiors. Thermal energy storage system further ensured the power consumption for air conditioning was reduced.

In the Anna Centenary Library, exclusive spaces had to be created for adults, children and also for safeguarding ancient manuscripts. Focusing on the theme of light to guide the visitor through the spaces, Raghavendran created easy to access as well as comfortable naturally-lit reading spaces for adults. As for children, he created an innovative space where the ambience simulated the exteriors with an artificial tree and seating around it along with an impromptu stage that would induce children to interact, indulge in storytelling. A controlled environment was created to house the ancient manuscripts.

Given the paucity of water in Chennai, his structures have incorporated waterless urinals, low flow taps, recycling of water that was done up to three to four times before being finally discharged into the drain. When it came to interiors too, Raghavendran has revealed his distinctive streak in addressing the spaces. In the D E Shah project in Hyderabad, he had to address the challenge of low ceiling and rigid spaces. Besides bringing in light shelves to reflect light into the interiors, he dispensed with straight lines, avoided corners by creating free flowing spaces. The low ceiling was addressed with curved glass partitions that dispensed with the rigid geometry typical of office spaces, bringing in open visual transparency.

His spaces invariably create interactive zones, be it in a township project or an IT company where such congregational zones are used actively for discussions. Likewise some of his projects have used clay tiles in the manner it was done over two centuries back. Concern over maintenance deters clients from opting for such on a larger scale, says Raghavendran. Lamenting on the declining traditional craftsmanship, Raghavendran adds, "the pride of workmanship is gone and this has impacted severely the craftsmanship. Take Chettinad plastering for instance, you cannot find anyone doing it anymore."

VASUDEV KANTHRAJ

ALTERNATIVELY INCLINED

When he completed his architecture course, his path was clear, the inclination strong, veering towards alternate methods of construction. Sustainable method was the key plank he wanted to base his designs on though the final structure was to display modern architecture rather than vernacular. **Architect Vasudev Kanthraj** of **Threpaadam**, all of 27 years, decided to start his own firm in less than four years of graduating from the prestigious RV College of Architecture.

Sathambakam Church

Kanthraj Residence

Given his strong leaning towards green sensibilities, local materials and skills, when faced with a choice of working in London or Krishnagiri, he chose Krishnagiri as his location. “The satisfaction of working in such places with direct access to local skills and materials is immense”, he says.

His Krishnagiri project located on 26 acres had an added inclusion of two villages that had been adopted. The apparel park involving a garment manufacturing unit was based on a holistic development model to accommodate the needs of the villages adopted. Thus, medical centre, a crèche designed to evolve into a full-fledged school were part of this complex. The 1.8 lakh Sqft space was designed to house 3000 employees who came from the adopted villages.

Ganesh and Aishwarya Residence

Conceptualised as the third place that was beyond home and workplace, the structure uses red mud sourced from the site along with the river sand which was again sourced from the region. Even the bricks were sourced from a less than 2 km location to keep the carbon footprint in check. Sloped thatched roofs mark the structure, the elephant grass for the thatch having been sourced from nearby Mettur basin.

“The thatch reduces the inside temperature by minimum 3°. The villagers were taught to make mats using elephant grass. Similar training was also imparted in laying red oxide floors, helping to revive a dying skill. Random rubble, again a dying skill, was used where the stones came from the waste generated by a granite factory in the vicinity. Cuddapah stones were used for ceiling and Sadarahalli for lintels over windows, reducing use of concrete”, says Vasudev.

The village was a flourishing pottery destination a generation earlier which had faced the shutters with youngsters moving out. To revive this, the local potters were given an order of over 10,000 pots which were fused into the structure along with the bricks, saving cost. Some of these pots were left open on both sides to let in air while others had mud stacked in them to host plants.

The main manufacturing unit has a structure that is column free with the brick walls serving as piers in place of columns to hold the steel trusses. Further, the structure has slanting windows to prevent water seeping in during rain while the roof is split angled at 22° to tap solar power.

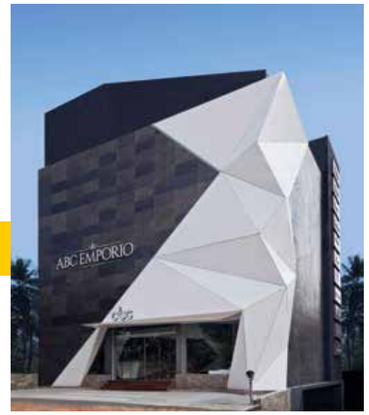
His use of local materials and skills is further evident in the residence project in Bangalore where he opted for Athangudi tiled floors, exposed brick walls, Mangalore tiled roofs while the interiors connected visually with the sky lit internal courtyard as well as the exteriors. Visual connectivity within the interior spaces was brought in through a double height ceiling in the living space. The interiors, inviting plenty of natural light and ventilation, evince a rustic ambience wrapped with an earthy flavour.

When Vasudev was faced with the task of designing a Church close to Vellore where the temperatures soar during summers, he opted for a thatched roof with coconut mats underneath to keep the ambient temperatures in the interiors several notches lower. Handmade soft granite tiles were used for flooring that kept the interiors cool while encouraging local skills. Random rubble and brick walls enclosed the spaces.

In the Kanthraj residence, he was faced with another challenge, that of creating 3600 Sqft of space in a 30x35 site without making the structure appear like a steep vertical expanse. Vasudev kept the earthy and rustic elements in place by opting for exposed brick and stone structure along with Athangudi tiles to encourage local skills “that are increasingly getting eliminated because of lack of market.”

Strategic placement of windows and vents ensured copious natural light and ventilation. The four bedroom house also incorporates a charming waterbody for relaxation, the fish pedicure area rubbing shoulders with an arresting vertical garden. “The lack of free space was circumvented by introducing a vertical garden while use of exposed bricks reduces cement used”, he adds.

Besides architecture, Vasudev also harbours a deep passion for theatre and this is borne out by his work in settings for concerts that includes the brilliant A R Rahman.



Emporio

ARUN TILLAK & MOHAMMAD FAVAS

A FUTURISTIC LEANING

Architects Arun Tillak and Mohammad Favas, students of Adhiyaman College of Architecture, have executed projects that display a differential mind-set where experimentation and innovation is the key, not just in the lines opted but in the manner of use of materials. The duo, both 27 years old, after a three and a half year stint in various architectural firms, decided to start their own firm to be able to let their design inclinations proceed unhindered. Thus came about their design firm, **Nu.De Architects.**

Says Tillak, who was associated with Nurukarim Architects for two years, "The executable segment is crucial when a futuristic or experimental design is chosen. One has to be respectful of the material, the technology, budget and time frame too."

The design inclination is very clear, the lines aspiring to be futuristic, the intent tending towards pushing the barriers of the materials used to their innovative limits. Experimentation is evident not just with the material palette but also in the strokes opted, creating a geometry that is both vibrant and striking.

The ABC Emporio in Kannur, a commercial project, serves as a fine example of their design inclination. The façade of the building is vibrant, geometrically structured like

Metrends

Fattoush Restaurant

Emporio

ABC, Facade, Kerala

a crystal. "Initial thoughts were to develop a design that could stimulate public imagination and intrigue. An iterative design process resulted in a crystalline skin", adds Tillak. The building wears a stone veneer to lend an earthy as well as a rustic feel. The slate finish charmingly contrasts with the white mass of the crystal made of acrylic. The 15m high façade also brings in colours through play of light, animating it in the process.

The language of the façade is taken into the interiors, both in terms of design as well as material use, thus connecting the two. "The interiors should not appear as a different space, distinct from the exteriors but rather as a continuation", says Tillak. "This continuation blurs the line between the interior and exterior spaces."

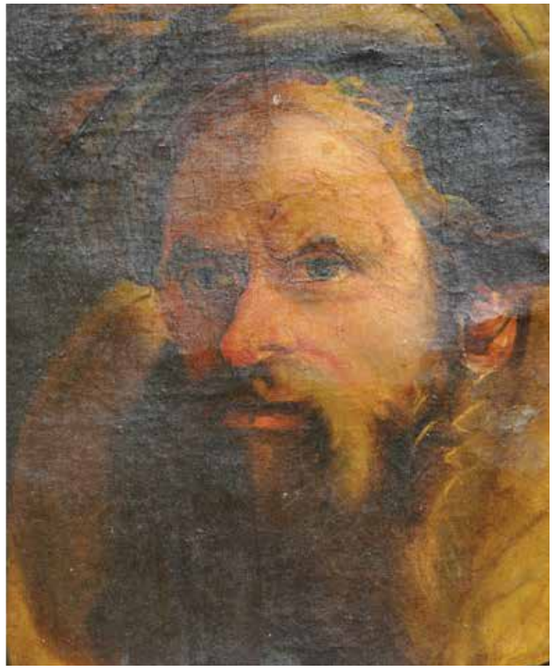
His project Sales Corp, a corporate office and retail showroom trading again in sanitary ware, hosts a glass façade over which a geometrical pattern emulating fluidity has been stretched over to connect with an aquatic form. "The architecture is a customary rectangular feature, but the connection to the client's brief was achieved by stretching the tensile material over glass to mime the behaviour of fluids on surfaces", says Tillak.

Futuristic design inclination is again evident in Euphoria, a hotel project. The hotel, with its 110 feet long façade, has an Arabic themed restaurant. The duo decided to bring in the feel of the sand dunes into the ambience to connect the food served with the place it originated from. The imagery of the desert, with the fluid sand dunes was brought in by using MDF board while the interiors were connected seamlessly to the exteriors through sheer glass walls.

The futuristic leaning is not spared in residences too. When faced with doing the interiors of a small, 1000 Sqft apartment facing the sea, the duo worked around to address two factors. One was the paucity of space which needed to be dealt with where the décor would need to feel large and open. The other was to bring in the refreshing sea into the interiors. Both factors were addressed by opting for a white interior décor that hosted custom made ergonomic furniture and sheer glass walls opening the interior spaces to the sea.

The furniture in the dining and living area was fused to the wall to lend a seamless expansion, while in the bedrooms the paucity of space was addressed by fusing the study table with the headboard of the cot. Further, the ceiling and the walls were cleverly blended to give a visual feel of continuity. Unused spaces were likewise effectively addressed to open up workable spaces while leaving a larger space for free movement.

In Metrends, a multi-branded retail foot ware, the duo had to give a unique identity in décor that could be replicated in all the branches of the retail store."The design had to be trendy, arresting while serving to be evolving", says Tillak. This theme was captured in the structure of the display units, the geometry in the façade which reflected a dense movement. "The dense pattern on the façade replicates the heavy movement of foot in a graph", he adds.



'Portrait – Demostenes', Oil on Canvas, measuring 73 x 64cms; Before and after conservation.

IN CONVERSATION WITH:

MADHU RANI

CONSERVING HERITAGE

Our cultural heritage is rich but the age of historical conservation is small. **Art Conservationist Conservator Madhu Rani, Director, INTACH, Chitrakala Parishath Art Conservation Centre (ICKPAC), Bangalore,** speaks at length to **Antarya** on the state of conservation of historical artworks and manuscripts in the country and the scientific approach adopted by conservationists and conservation bodies.

Shiva Kalyana, Mysore traditional style, water based colour on paper, measuring 95.5 x 121.5cms; Before and after conservation.

'Portrait of Lady', unknown artist, Oil on canvas, measuring 89 cms x 70 cms; During conservation treatment. Seen here is the partially cleaned varnish along with earlier repairs

Q. India is famous for its art and architecture. But care given to their conservation and restoration is far from satisfactory. What can help change this attitude?

We are home to one of the richest heritages of art and architecture, yet, compared with the long history of our cultural heritage, the age of historical conservation is very small, almost in infancy. The ASI however has done some good work in conservation over the years.

With the country being large and cultural heritage widespread, perhaps the abundance has made us sideline, leading to its destruction during industrialization, revolutions and modernization. Economic and political factors too have contributed, giving lower priority to cultural heritage.

Conservation of old mural paintings in Thyagaraja Swamy Temple, Tiruvarur, Tamil Nadu.

Currently there is a new wave of change, with Government setting aside funds and private sector too coming forth to fund projects. Support for research is available. This opportunity should be availed with more active role played in preservation, through identification, documentation, creating awareness as well as altering people's mindset towards culture and heritage.

Q. Is destruction of many of our heritage sites a result of lack of awareness and education or merely insensitivity to our inherited culture and its preservation?
All of these. Education must play a key role. Schools and colleges need to teach importance of cultural heritage. This could be through introducing in syllabus along with history lessons and creating awareness from school.

Q. To what extent can youth play a role in preserving heritage?
Youth must take lead. Interested youth can join courses dealing with education on preservation, where they can directly impact. Others can create support groups to educate masses. They can adopt sites and play key role in monitoring upkeep of monuments. Museums abroad have volunteers supporting as museum staff. Youth here could similarly volunteer to take groups around, serve as guides.

Q. Could you speak of some of your experiences in conservation of art, architecture and ancient manuscripts?
I have been conserving artworks for over 15 years. My area of specialization is conservation of artworks on paper. But here with not many in this field and many objects in dire state, we tend to treat different mediums of art objects. Being in Southern part of the country, we receive plenty of paintings from traditional Mysore and Thanjavur schools.

In South India there are a substantial number of sites with wall paintings. So I started learning conservation of mural paintings. One of the important sites I worked on is the Thyagaraja Swamy temple, in Tiruvarur, Tamilnadu.

I have not conserved any structure as my purview is material heritage. But in any project, for conservation and restoration of art, it is necessary to address the condition of the building too. Architectural conservation precedes conservation of objects.

As conservators we care for art objects as well as decorative fixtures, fittings in interiors, the most important being the mural or wall paintings. All these are made from a wide range of materials. Our job does not end with treating them but includes their display, use,

storage, transport and first aid, involving treatment and preventive maintenance. This involves conservation architects and we work as a team, each offering our different expertise.

The last decade of association with the National Mission for Manuscripts helped conserve over thousands of paper and palm leaf manuscripts. A number of workshops in many repositories across Karnataka were conducted on preventive care for manuscripts, guiding custodians on their care and maintenance. Initially, collectors were reluctant to show the manuscripts or allow their treatment, but now the response is overwhelming, helping us to save some very sacred and ancient manuscripts.

Q. INTACH has been instrumental in restoring priceless pieces of cultural heritage. But many continue to lie in ruins with little prospect being successfully restored. How can INTACH help in restoration of such heritage currently neglected?
INTACH was registered in 1984 as a society, founded with the vision to create a membership organization to stimulate and spearhead heritage awareness and conservation in India.

But how much we can take on and accomplish is limited. We are doing our best to spread concern for heritage conservation and preservation, encourage capacity building by developing skills through training programs.

Q. Many a time the restoration work undertaken is not scientific to restore to original state. Wrong methods of restoration have ruined many artworks. Does INTACH educate and correct such initiatives?
Before care and treatment, we need to carry out a technical examination to determine why something is in its current condition. This examination enables understanding the nature and significance of objects and interiors by finding when and where they were made, of what they are made, who made them, how they were used, altered, repaired and looked after. Understanding of materials, techniques of manufacture and causes of deterioration changes focus of care away from treatment to preventive conservation approach, reducing possibility of further damage.

Architecture is also an object in changing environment and objects of art are part of this. But when it comes to interventions, usually corrective measures are taken to solve problems rather than create a system that is responsive to changing paradigms, changing weather conditions and user expectations, both in historical buildings and on artworks. This is a big concern we face. More than actual conservation and restoration, we end up working on undoing previous wrong interventions. INTACH conducts many workshops and awareness programs across the country to sensitize these issues.

Many times, even conservators who are aware, cannot carry forward in a scientific, research oriented method due to lack

Conservation of old mural paintings in Thyagaraja Swamy Temple, Tiruvarur, Tamil Nadu.

of time, funds and indifference of the custodians and higher authorities responsible for sanctioning projects. It is common for people to comment and compare the quality of work done here and aboard. Aboard funds are available, with resources to concentrate more on research which translates into different approaches and methodologies. Here we require quick results and just want recipes. While interning in London I would observe conservators take over two years, if required, to treat a painting while here we are expected to treat two hundred in that time.

But things are changing for better. There has been a sizeable number of international collaborations over last couple of years. Many institutions are coming forward to support research and collaborate in different ways.

> "More than actual conservation and restoration, we end up working on undoing previous wrong interventions. ."

Sri Datta Sai Spiritual Centre

IN CONVERSATION WITH:

PRAMOD BALAKRISHNAN

DESIGNING WITH SENSITIVITY

A building is beyond the physical trappings where the experience of the space is as vital as the design incorporated. **Architect Pramod Balakrishnan** of **Edifice Architects** and Interior Designers in a chat with **Antarya**, speaks on the design elements, the sensitivities, community spaces and our dying village craftsmanship, pointing for the need to design sensibly as well as sensitively.

RPP Selva Sundaram, Erode

Pramod Balakrishnan's Residence

Q. A building is not just an object displaying strong sense of design but goes beyond to address functional and aesthetic inclinations. How would you meet this requirement while permitting expression of architect's creativity, experimental and innovative inclinations?
Well there is no challenging this statement that a building is not just an object. Sadly today it looks like most of them are. We have lost the will to go beyond this insipid thinking which to a large extent is driven by what is seen in the architectural world today. Young and old architects believe this is ultimate. For us at edifice it is a case of what is it we bring in while meeting the clients brief. Our attempt is to build an environment energised with emotion and drama; spaces that permit the inhabitant to experience their quotient of happiness and the wonder of a dynamic space that brings in the intangible. The search for that in every project is vital. Design does not begin until we arrive at the soul.

Q. Community spaces allowing interaction are vital to promote harmonious living. How effectively can this be brought in housing complexes where they go beyond the conventional club houses currently offered?
We have lost our traditional bonds with family and community. The urbanised citizen has become anonymous. It is now a case of living in isolation but being part of physical groups without emotional binding. Our environments no more create these opportunities of community interactions. Our residential developments serve as a standard collection of pretty jargon; walking tracks, club house, gym. Sans the emotional quotient.

It is just blocks interspersed with green and the ubiquitous array of dressing. This has reduced the sensitivity of the buyer to other areas of concern, limiting his focus to his single residence without consideration of the whole. Marketing teams create pretty pictures without a clue to the intangibles that need to be part of their projects.

Casa Grande, Cherry Pick

> "Our rules need to be debated to see how it can be changed to allow for the design of good environments across all typologies."

Architects need to come up with designs that permit communities to bloom where the designed environment pauses on the multiple journeys one takes within it. Scalar growth of shared spaces in close proximity to groups and larger spaces for the larger groups are all design tools that one should use. Visual contact of spaces outside of the front door allows for a glimpse of life and the desire to share. As architects we have failed and succumbed to the market of economics.

Q. Residential areas with independent housing as well as urban shopping areas do not have effective community spaces for people to congregate. How can our current congested urban spaces be transformed to bring in this?
Firstly, our rules need to be revisited to resolve these issues. We have a common rule across all typologies based on simplistic measures which do not stand up to scrutiny. Our rules need to be debated to see how it can be changed to allow for the design of good environments across all typologies. For instance, the setbacks in front of residential buildings destroys the street connect. This in turn reduces the street to a mundane road. Properties are laid out in a manner that only roads and boundaries separate plots. Everything is singular and nothing handles the needs of the group and this adds to the morass. Even to show examples of how this can be done in large developments is becoming an issue. Educating the developer, the buyer and the state is becoming a tiring, at times a futile effort. But try we should, with examples that give a new way to begin the change. It requires all of us to contribute at various levels. We at edifice make these efforts with support of clients who need to be educated and negotiated to begin with. But it works and we have shown this across industry, education, corporate offices, and residential communities and in certain cases within the canvas of the plot of how a residence can respond to the street. If the need is felt, rest will follow.

Q. Ornamentation, trimmings in structures as well as a differential design while proving arresting, even iconic, has the danger of being timed out. How can a structure be lent a distinctive flavour that is timeless yet serves to be arresting and iconic?
When buildings become objects, then ornamentation and trimmings are required to give some value. It is like a wedding cake. It has become worse now with many aliens sprouting up in our city fabric. The more such arise, more accepted they become. Sometimes it becomes an aspiration. The IT culture has had its own role in this destruction of context and advent of the cake architecture. It brought in a world that altered years of civilization. We suddenly disowned the past and looked outwards for directions when everything was here and changing within here. It is those trimmings that we need to trim off its roots.

Ceebros Office

Q. A distinguishing design invariably offers an experience in the space where the experience stays on even after vacating the space. What elements are addressed to bring in this experiential effect?
It is difficult to define what these elements could be. It will depend on intent of what you wanted to achieve from the environment you were creating. But yes, it is the memories that you take away from visiting that is more important than the physical embodiments that burnish the space. Each environment based on typology and scale will seek out a mnemonic or a collection of them as take away that enriched your experience, which will attach to the memory of the built environment.

Q. Your designs fuse in quite a strong play of shadow and light as well as the presence of water bodies and green spaces irrespective of the size of the development. There is also a brief play of natural materials such as stone and exposed bricks. To what extent should there be inclusion of natural materials in a structure?
We build environments not buildings. This in itself should answer this question. The sun, the rain, shadows, nature, and the complete union of inside and outside to make that complete whole is our palette. It is a wonderful and very large palette allowing infinite freedom based on your skills and desire to achieve. Natural materials like stone, brick, wood, bamboo are part of this palette.

Q. With emergence of technology, new materials and design techniques, local skills and village craftsmanship are slowly dying which is proving to be a cause for concern. How can architects, through their designs enable a revival of interest in local skills and village crafts?
Yes that is a problem. I think it is inevitable we lose out on such skills with advancement and change of scale of the built area. But we should continue to support these skills to some extent. Today, very few are attached to their work in the construction industry. Many are not skilled in their work and their supervisors are even less skilled. Our industry needs to review this and make the required changes.

BENNY KURIAKOSE

DESIGNING DOWN TO EARTH

By Nandhini Sundar

He studied civil engineering. Photography was his passion. As for his career, he wanted to become a cinematographer. But his path led towards design, drawn as he was, by an inherent liking to it. After all, design is certainly not parked on the other side of civil engineering. He could still indulge in this second passion with the foundation he had received from his undergraduate course. For, he firmly believed, a design sense is not something that is taught but intrinsic. Architecture only gives the right shape and direction to this intrinsic leaning.

Not surprisingly, he soon found himself not just designing buildings but restoring many of historical value, keeping his green sensitivities intact. Without exception, all his designs and structures were totally grounded to earth, the natural materials as well as elements present in the spaces making this intention loud and clear. That is **Benny Kuriakose** of **Benny Kuriakose Architects.** A designer who is not only grounded in his design but in his thought process and attitude too.

Facing page & Above: Wayanad House

Casa Rajo

His first tryst with design began with none other than Architect Laurie Baker, with Kuriakose learning the elements of architecture from the master and then forging on to his own path, albeit carrying his strong influence.

His project in Benegaon village in Lattur district, which involved a housing development, adopted the traditional pattern for the houses. The reconstruction of Chapredi village in Bhuj that was destroyed by the earthquake, followed after this project. The design opted addressed the earth quake sensitivity of the region while keeping the local sentiments in perspective. Not surprisingly, given his experience in working in disaster areas, the reconstruction of the settlements affected by Tsunami also came to him where he roped in community participation in the design and construction.

Stressing on the importance of research before embarking on the basics of design of a project, Kuriakose states that the concept is most important as design evolves from this. "Research thoroughly on various aspects of the project before coming up with the design", he says. His work on the Muziris Heritage project is a case in point where extensive research was done before embarking on the conservation.

The Muziris involved the restoration of 2 synagogues, 2 forts along with some of the oldest temples in the area. The excavation of the place showed links with the Muziris port besides the Roman and Middle East connection. Plenty of pottery, precious stones, old boats, even toilets were excavated. Kuriakose had to work out a concept where the history of this place would be effectively narrated. "Education and not tourism is the primary accent of the project", he says.

During the conservation he ensured that the spaces brought in sufficient light and were structured to bring in the energy along with the presence of water that offered a healing effect through its visual presence as well as the sound of it flowing. Besides tracing history and restoring the heritage, the project also included developing the infrastructure in the region to make the place tourist friendly.

Says Kuriakose, "A structure should be flexible to adapt to long term use and the design should be creative yet functional. While the design should be able to incorporate locally available natural materials, the five elements should be effectively brought in. The

Quiet by the River

Dakshina Chitra

presence of a courtyard, verandas and deep overhangs bring in natural light while keeping the interiors cool."

This design inclination is evident in his handling of the public spaces in Dakshina Chitra. Old doors, windows, sloped roofs, courtyards and verandas find their way, evoking a vernacular feel although addressing a contemporary space. "The vernacular design should be an experience, not just a style", he adds.

His design and structure of Quiet by the River, a resort by the Periyar River, accessible only by boat bears ample testimony to his contextual handling of the spaces. All the cottages enjoy a vantage view of the river from their interiors. The structure is predominantly erected with local stones with a couple of cottages boasting of timber walls. The use of concrete has been limited, with the structures erected with minimal disturbance to the existing flora.

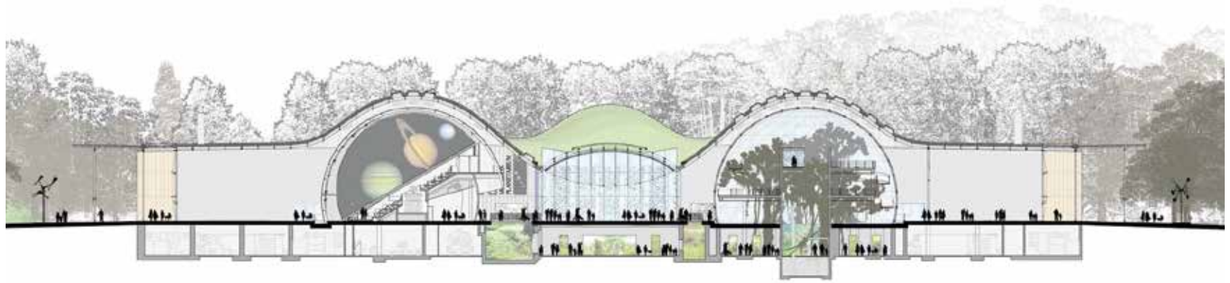
The Ambili residence on a 7200 Sq ft area was to be structured on the lines of Kerala houses with verandas and garden spaces both in the front and back of the house. While the dining area was fashioned in the open veranda, the living and master bedroom were given an earthy feel with natural timber flooring. The interiors with their presence of old Chettinad pillars and a strong vernacular flavour, also subtly blend in the contemporary. The exteriors are brought in visually through the large expanse of glass in the living area while the bath spaces reveal an open to sky design with their glass covered roof.

His project Casa Rajo is a two storied building made of mud blocks that used fly ash and minimal cement for bonding. The main segment of the house hosts a truss roof with the verandas covered with timber rafters and Mangalore tiles. Once upon a hut was a thatched roof residence with thick walls that needed to be restructured. This was done by changing the thatch to tiles, retaining the thick walls, restructuring with recycled windows and doors, using Eucalyptus barks for timber, treating most of the country wood with cashew shell oil.

In the Paliam Palace which was a conservation project, Kuriakose converted the spaces into a museum which provides information on the Paliam family, the Dutch and Portuguese. The building, in a dilapidated state, had to be strengthened and restored. Kuriakose also widened the original damaged staircase and made provision for toilets as the original building housed none.

SENSITIVELY STRUCTURED

A Report by Architect Yamini Kumar



The word 'green' is very loosely used. Fad or no fad, high-tech green architecture is a powerful means of minimising environmental damage. The Pritzker Prize winning architect Renzo Piano, in his iconic designs, does not let the conventional notion of sustainability control his creativity. The California Institute of Social Sciences is one such example. During my visit to this building, I was struck by its sophistication, yet apparent simplicity.

This project is one of the ten pilot 'green building' projects of the San Francisco Department of Environment. Covering the 400,000 Sq ft building that replaces a Complex, which was damaged beyond repair by the 1989 Loma Prieta earthquake, is an undulating 2.5 acre living roof dotted with porthole-like skylights.

The Academy sits on the Golden Gate Park site of its predecessor, which was comprised of 11 buildings built between 1916 and '76, grouped around a central courtyard. Of these buildings, three have been conserved within the new project. This building conserves two limestone walls from the previous building (1934) and houses a planetarium, a rain forest habitat and an aquarium and several exhibition spaces to house the several Academy collections.

The planetarium roof and the bubble containing the rain forest habitat are the two big spheres shaping the green roof. The roof serves as a landscape with California native species that need no extra maintenance or water. Visitors are allowed on to a small part of the roof, so as not to disturb the plants. With Piano wanting an alternative to the typical plastic trays used in most modular green roof systems, the Bio-Tray was developed, a biodegradable container made of natural latex and coconut coir.

To understand better how to naturally ventilate the exhibit hall, engineers analysed the space using computational fluid dynamics (CFD) starting with schematic design. These analyses were refined as the design progressed and the results validated against the performance of physical scale models subjected to wind tunnel tests. Sensors measured factors such as pressure on the facades, wind speed and direction. The tests not only focused on visitors' thermal comfort, but also on ensuring the indoor air was free of contaminants. The design team used this data garnered from the CFD analysis and wind tunnel tests to create a control sequence for the building automation system (BAS).

The building is thus extremely efficient in terms of natural ventilation and reducing heat gain and production. Most spaces have access to daylight and outside views, with hardly any heat gain from electric lighting. Photo sensors in the lighting system automatically dim artificial lights in response to daylight penetration. The undulating roof draws air inside, naturally ventilating the spaces. Skylights automatically open and close to vent hot air while motorized windows automatically open and shut to allow cool air into the building.

Heat recovery systems capture and utilize heat produced by HVAC equipment, reducing heating energy use. The planted roof provides a superior thermal insulating layer, reducing energy needs for air-conditioning. High performance glass is used throughout, reducing standard levels of heat absorption and decreasing cooling load. Reverse osmosis humidification systems keep research collections at a constant humidity level, reducing energy consumption for humidification by 95 per cent.

A solar canopy around the perimeter of the roof containing 60,000 photo voltaic cells supply almost 213,000 kWh of clean energy per year and prevent the release of more than 405,000 pounds of greenhouse gas emissions annually.

By absorbing rainwater, the Academy's living roof prevents up to 3.6 million gallons of runoff from carrying pollutants into the ecosystem each year (about 98 per cent of all storm water). Reclaimed water from the city of San Francisco is used to flush toilets, reducing the use of potable water for wastewater conveyance by 90 per cent. Saltwater for the aquarium is piped in from the Pacific Ocean, minimizing the use of potable water for aquarium systems. Nitrate wastes are purified with natural systems, ensuring the aquarium water can be recycled.

Over 90 per cent of the demolition waste from the old Academy was recycled where 9,000 tons of concrete was reused in roadway construction, 12,000 tons of steel was recycled. Recycled steel has been used for 100 per cent of the building's structural steel. Recycled blue jeans form the insulation in the building's walls. It contains 85 per cent post-industrial recycled content along with cotton, a rapidly renewable resource.

The choice of materials, recycling, the positioning of the spaces with respect to natural lighting, natural ventilation, water usage, rainwater recovery and energy production, all became an integral part of the project, making the museum obtain LEED platinum certification.

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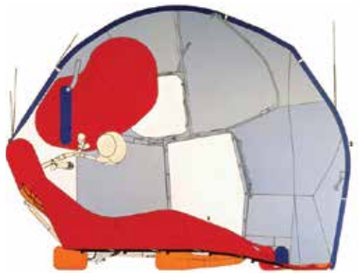
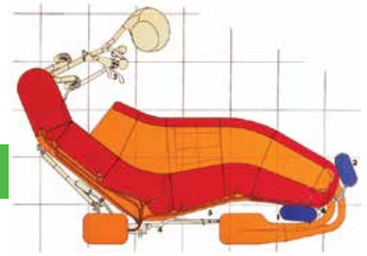
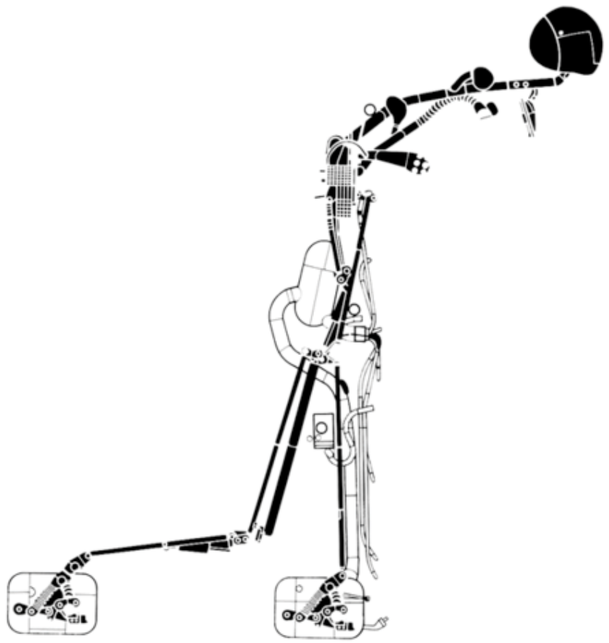
A WEARABLE HOME

A Report by
Architect Akshara Verma







Innovation headlines in the recent past across disciplines have been predominantly in 'wearable technology'. 'Wearables', initially thought of as a passing fad, have today found applications that extend far beyond the realm of personal tracking. Its use today has evolved from health-care and sport technology to cultural production and arts; instigating an encompassing question. Could there come a time when architecture is wearable too?

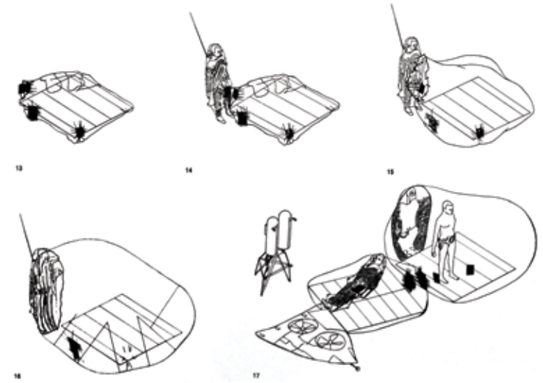
The concept of wearable architecture within contemporary discourse has been a fascination for the last half a decade. Micheal Webb, of the British avant-garde group Archigram, conceptualized an eclectic wearable architectural project called the 'Cushicle' in 1964 following up with 'Suitaloon' in 1967.

Addressing concerns like urban mobility and highly individualized living, concepts that drive architecture and urban design strongly today, the Cushicle aimed to contain all essential comforts of home while being portable. It was designed to be an omnipresent 'suit' for a nomad, a second skin, or a thermo barrier between man and environment.

The Cushicle was built on a lightweight support wrapped by a skin that can inflate pneumatically, when required, around this skeleton. Being self-serviceable, the Cushicle was designed to be equipped with all apparatus needed for comfortable domestic life. Constituted by two major parts, the 'armature' and 'enclosure', which could operate simultaneously or independently, components of the Cushicle accommodated a steady supply of food and water while providing for heating and entertainment – such as a radio, miniature projection television.

Few years later, Micheal Webbs' 'Suitaloon', took the idea of plug-in living and adaptability one step further. Conceived around the time when man first stepped on the moon in spacesuits, the Suitaloon was clothing for living in. A famous statement by Webb stated, "If it wasn't for my Suitaloon, I would have to buy a house". And true to his proclamation, the Suitaloon aimed to depict a minimal house, having a plug that serves a function like a key to your front door; allowing you to open your Suitaloon, literally and figuratively, and share your 'house suit' with one or more of your friends or leave it clipped on its own as if it were parked.

Fast forward to the 21st century, we see that Archigrams' Cushicle and Suitaloon have continuously inspired a generation of innovative thinkers. Taking the young Italian design group GAIA's project called 'Veasyble' for example, which bases itself on three concepts – isolation, intimacy and ornament - we observe that the first two relate quite closely to the ideas of Micheal Webb. Veasyble was designed as four objects (a purse, mask, a ruff and visor) in three materials (plastic resin, fabric or paper), thereby generating twelve prototypes. Each prototype makes a general comment on human visibility. Arguably, the project title has been derived from this very concept of 'being visible' in our contemporary built environment.



While the prototypes from Veasyble provide a portable means of privacy, a virtue increasingly relevant in our technologically pervasive lives, we could argue that the material making up the object prototypes has not been developed to full architectural potential. When Neil Armstrong and Buzz Aldrin took their first steps on the moon, they wore spacesuits made of twenty-one layers of fabric, each articulated by a complex system of distinct functions sewn together by seamstresses whose usual work was fashioning women's inner-wear. In the same light, what fabric material innovation can propel architecture in the advent of new technologies – specifically that of digital information systems and invisible networks of communication?

An interesting contemporary example of innovation in fabric technology is the result of a recent research project titled 'Building with Textiles' in Tilburg that aimed at creating innovative textiles that finds relevance in between fields of art, architecture and interior design. Here, Dutch designer Petra Blaisse and her team at Inside Outside developed a flexible solar curtain – an idea that begins to utilize the very energy from the sun that a curtain is meant to block. Tested in two extreme conditions of lights, in Qatar and in Netherlands, the team at Inside Outside found a solution to reach optimum efficiency by altering the weave pattern in copper wire that binds the fabric along with the solar panels. A 1.5 metre wide and tall piece of the fabric proved remarkably efficient by being able to generate enough energy to charge an iPhone even in the weak winter daylight of Netherlands.

While the solar-curtain prototype was the result of arduous research and testing, even proving labour intensive, with three hands-on hours taken to complete a 1x1 m panel, the consequences and application of such innovative fabrics opens up multitude of possibilities. Whether such breakthroughs steer the way for more limitless, elegant textile solutions, providing an alternative way of life, replacing electric sockets, creating a 21st century wearable home, remains to be seen.

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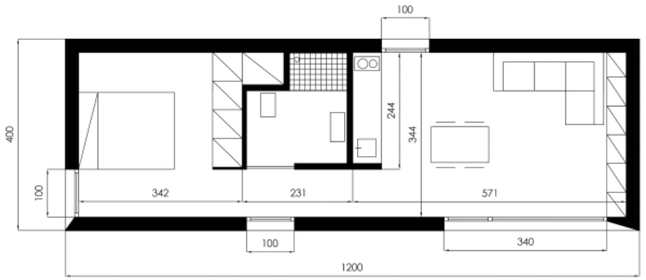
A PORTABLE RESIDENCE

A Report by Architect Priti Kalra



In the era of sustainable construction, a company was born in Geel, Belgium about two and a half years ago with the aim of providing an energy-efficient and modular solution to various niche housing types. The idea grew during a car journey back home in a conversation between Jan Vrijs (business lawyer) and Filip Timmermans (industrial engineer). They were discussing an issue a friend of theirs was facing. After many years of living separately, he had to go back to live with his parents due to medical reasons. For a guy nearing his thirties, this couldn't possibly be an easy lifestyle change to adapt to.

Having studied alternative housing methods for a couple of years, Filip was in the process of designing a new prefabricated construction method for his own house. Intrigued, Jan proposed that this could be the perfect solution for their friend. On finding an investor in Raymond Crestkens, Owner of AKP and Allim (a big industrial building company in steel and concrete buildings), Skilpod came to life.

Skilpod specialises in prefabricated load-bearing mini-houses and extensions that are perfect for small-scale housing, care housing and office spaces. It is an innovative concept in which the different elements of the residence are manufactured as fully as possible in the controlled environment of a factory. Thus, quality is assured. Plug and play method of installation is employed, hence not only does the installation take only a day for completion, but disruption and noise generated at site are also kept to a minimum.

The fact that the pod is portable brings with it endless possibilities of dismantling, re-installation at different locations, as well as assembling in combination with new pods. It is transported by truck from the studio to the desired location. Because it is a self-supporting structure, an elaborate structural foundation is not required.

After testing a series of prototypes in steel, wood and EPS (expanded polystyrene), the designers chanced upon CLT - cross laminated timber. Although the material itself was not cheap, the other advantages it offered led to savings which balanced out the overall cost of the project. It proved to be a great construction material as it is extremely strong, has good thermal properties, enables fast construction, is easy to transport and comes in very nice interior finishes.

The entire pod is clothed in PIR insulation of 140mm thickness, thus meeting with future insulation standards of housing. The roofing is made of EPDM rubber and is finished in one sheet so that there is no scope of rainwater seepage. The bottom of the pod is slightly elevated from the ground and finished in a protective layer which prevents moisture penetration. Windows and doors are made with aluminium frames and are recessed with an interesting bevelling detail.









The inside walls and ceiling are built out of flat wood and Skilpod offers a variety of finishes from paint to staining to wallpaper depending on the customer's taste. In flooring as well, various options are possible from parquet to stone to carpet, cork or vinyl. Taking cues from the boating industry, a composite of polyester and wood has been designed for the facade offering a clean, white surface with no divisions. The use of plaster has been avoided as it can crack during transportation.

After much national media attention, Skilpod was approached by a social housing cooperation. For them, they designed one of their newer models - #48 Energy PLUS - in collaboration with UAU Collective from Hasselt. It occupies an area of 48 Sqm and comes with a living area, a kitchenette, a bathroom and a bedroom. It is aimed at being rented to singles, youngsters who are starting out independently, as well as senior citizens for whom regular houses may be too large and unaffordable.

Research is also being carried out together with the Flemish government to install this model in the backyards of middle-aged people for their elderly parents - as a way of keeping families together and eliminating the need for retirement homes. This model functions as a zero energy one, often generating negative energy levels which means that it produces more than it consumes. This is possible because the design incorporates solar panels, heat pumps, efficient ventilation systems for heat recovery and automated sunscreens.

An interesting fact to note - the company's name Skilpod was derived from the South African word 'skilpad' which means turtle. In reference to the portability of the pod, the concept of the name connects to the turtle carrying his home with him always.

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wwww.skilpod.com/portfolio/48/

AN EXPANSE OF GREEN AND WATER

By Nandhini Sundar | Photographs by Mahesh Chadaga

It was a long winding road, lined by rubber wood, a road that appeared endless. With the picturesque Chittar Lake flanking one side while the other hosted thick rubber wood plantation, we were happy the road seemed endless, feasting our eyes on the serene beauty before us. But come to an end the road finally did but only to take us to yet to another captivating feature, an arresting reception area welcoming us to the charming resort **Anantya**, situated close to the historic town of Kanyakumari.

With its curved tiled roofs, water bodies, the absence of walls blurring the demarcation between the exteriors and inner spaces, the reception area, placed amidst a thickset of rubber wood trees, heralded what was further in store in this charming green resort. The vernacular sentiments were loud in the décor, be it in the furniture, in the cement flooring or the structure opted. Designed by **Benny Kuriakose, of Benny Kuriakose Architects**, Anantya is totally earthy and rustic in its appeal.

Tucked away as they were, almost imperceptibly amidst the rubber plantation in the sprawling campus, the cottages were placed in front of the picturesque lake, affording a view of the watery expanse not just from the relaxing gazebos in the individual gardens but also from the interiors of the room when perched on the bed with a book. The cottages displayed similar vernacular inclinations in design, the entrance hosting an attractive Kerala porch with its antique doors, the walls made of exposed bricks, the curved roof tiles and yellow oxide flooring teamed with old world charm furniture.

Greenery is further brought into the interiors through a glass ensconced back drop for the bed. An open bathroom concept is also incorporated with a glass partition connecting the bathtub to the bedroom and thence to the watery expanse of the lake through yet another glass wall. While stone washbasins bring in the outdoor rustic flavour, the abundant natural light filtering into the interiors and the visual connect to the landscape effortlessly give the feel of being outdoors even when relaxing in the comfort of the room.

The vernacular theme is carried across the resort, reflecting in the garden spaces too in the form of clay pot lamps, with the restaurant and spa incorporating strong vernacular flavour in décor and structure. The open restaurant sans walls overlooks the lake, the watery expanse seeping into the eatery through its copious visual presence. The rustic décor of the restaurant houses many antique elements that include ancient cooking utensils, *urulis*, grinding stones, storage cans for keeping grains and *masalas*. The exquisitely carved wooden partition along with its accompanying antique lamps, further accentuates this old world flavour.

Overlooking not only the lake but also surrounded by attractive lily ponds that line the path leading to it, the restaurant appears magical at night, the clay pot floor

lamps in the garden blinking like grounded stars, boldly seeming to compete with those spanning above, the ambience totally romantic, irresistibly inviting to enter and indulge.

Given the Kerala ayurvedic massages offered in the spa, the structure too has been lent a Kerala flavour. Thus, Kerala style brackets support the roof, while intricate wooden *jaalis* feature under wood rafters and thatched roof prevails in a portion of the spa to drop the temperatures in the interiors. The sentiments and intention of the design was loud and clear; keep it green so that it not only resonates the environment it is tucked in but also respects the green sensitivities of the location.

Says Lakshmi Ashok, Director, Anantya resorts, whose ideas were essentially given the structural form, "we were dealing with an abundant space, set as it is in a 1000 acre rubber plantation, and this abundance in space was sought to be brought into the structure and interiors. Thus the reception was placed in a wooded expanse while the cottages were designed to get the view and feel of the lake. Lily and lotus pools mark the resort, a reminder of the feature of Kanyakumari. A blending of the rustic with the tones of Kerala was brought in, fusing finely with a twinge of contemporary style. Vernacular sentiments are equally prominent, with even the outdoors emitting this flavour through the ancient *yaalis* spouting water in the prevailing water bodies."

Having indulged in a sumptuous authentic South Indian meal complete with *poriyal*, beetroot *kichadi*, *rasam*, *paruppu payasam*, a dash of caramel banana custard, it was time for a luxurious ayurvedic massage to soothe the tired nerves. If the food served was mouth-watering, the massage was one of the very best I had indulged in, prompting me to wish that it would continue endlessly.

If you thought pampering of the body and mind was the only thing the resort offered, the next day early morning was a certain surprise. A spectacular trip through the 1000 acre rubber plantation not only left me and my companion enchanted, but also with more knowledge on rubber and its source. A visit on the way to the campsite where the more adventurous could lodge in tents only added to the novelty. When the time ultimately came to part and move homeward, it was certainly done with reluctance.

Photographs by: Mahesh Chadaga

GOING BEYOND MEDIOCRITY

By Architect Prof Mukul Kulkarni
Dean (Design) Priyadarshini Institute of Architecture and Design Studies, Nagpur

Great concepts are often seen to end up in mediocre designs. In which case, the moot question is ‘has the student not learnt well or has he not been taught well’. How does one fill this gap?

Is the subject of Architectural Design in colleges about learning or teaching or both? The answer to this question posed to me by one of the students a few years back prompted me to contemplate further on this.

The methodology of learning design, post the basic principles of design is more from experiential learning as opposed to too much of studio work. This has to be handled with utmost care with the right balance being achieved through various years. Great concepts are often seen to end up in mediocre designs. In which case, the moot question is ‘has the student not learnt well or has he not been taught well’. How does one fill this gap?

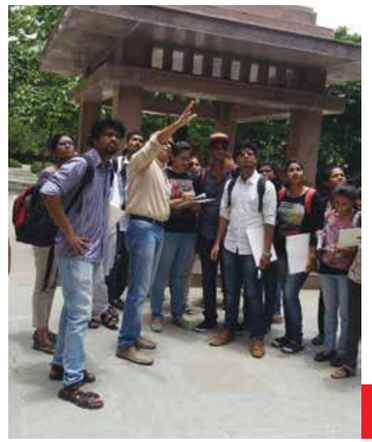
This is where I believe that teaching and hence teachers are the core to good architectural education. But again, today’s young teachers have come from the same system. Students who have just graduated join as teachers without any teaching or mentoring experience. I feel then the students are short changed. The general level of design is hence not up to the mark. Yes, there would always be good students in all colleges who do come up with excellent work but there is a lot of mediocrity around. This is prevalent in teachers and students. How do we counter this?

At the student level, though we have aptitude tests at regional and national levels, these do nothing to stem the mediocrity of the entrants. These tests have to be much more stringent to ensure better quality of students entering the profession.

At the teacher level, there is no criteria for employing teachers, except that they should posses a first class post graduate degree in a design related field. Is that enough? I believe all teachers should duly be accredited by an independent agency, which will ensure they meet minimum criteria for teaching. This accreditation should be renewable every three years. Within their institute they should be encouraged to publish papers, take active part in national and international conventions. I have always wondered why there isn’t a BEd type of a degree for teachers in design schools.

Possessing knowledge and teaching the same to a group of students are two completely different scenarios. A national level institute which can hold workshops of design pedagogy and other subjects and regularly accredit teachers at various levels will bring about parity amongst teaching and raise the level of teaching across the country. At present a significant number of teachers of design are not practising architects and are faulted for not ingraining the practical side of the subjects taught. This also requires due address.

It is also a good idea if older colleges with reputed faculty conduct pedagogy workshops for the aspiring faculty in architecture.

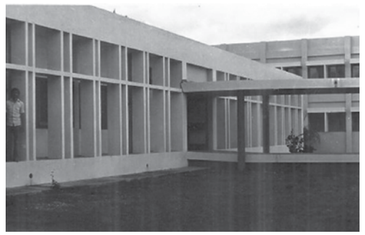


At the professional level, professionals invariably complain about the levels of education in architectural schools in India as well as the gap between academia and practice. But very few do something about it. There is an urgent need for more professionals to contribute in academics and this can be done by getting attached to local colleges, not just as jury members, but by involving in teaching and mentoring students. Sharing professional drawings with students, taking them to visit projects, completed or under construction, explaining the concept, would all serve to encourage and motivate students. With students spending a year in training at architecture firms, it should be mandatory for these firms to be sensitive to students’ needs.

We currently have over 425 architecture colleges in our country, a number that is constantly growing. While there is a dire need for more colleges, the challenge posed is dearth of faculty. AICTE is at present working on reducing over 600,000 seats in engineering, the reason cited being to improve the quality of education. Is there a message for architecture schools in this? Getting accredited by a national agency should be the norm instead of an option. It is also a good idea if older colleges with reputed faculty conduct pedagogy workshops for the aspiring faculty in architecture.

At the university level, the original course of five years has now reduced to four years with a year of training, necessitating the reduction of a semester. Eventually this has led to cramming of subject material and provision for more electives. Students are bombarded with a plethora of information without time to understand and absorb. This calls for a national debate which would eventually help students, faculty, the profession and overall quality of architecture education in the country.

Students are bombarded with a plethora of information without time to understand and absorb. This calls for a national debate which would eventually help students, faculty, the profession and overall quality of architecture education in the country.



Left: George Gund Hall, GSD Harvard – John Andrews, 1972

Right: School of Architecture, Madras, 1972

INSPIRING BUILT ENVIRONMENT

By Architect Prof Jaffer Khan
AUT University, Auckland, New Zeland

The years 2010-2015 were a challenging five years in my career as an academic heading a school of architecture near Chennai. It was a rectangular box which once was a student residential hostel for a nearby school. This was quickly converted into studios, lecture halls, library and faculty offices.Every time the Council of Architecture visited, the private management of the school promised a new building and presented them with plans and models. But the "box" was our destiny and it continued even when the school was running with a healthy profit over the years, filling the ever greedy pockets of the so called visionaries of education. This was the most exasperating time for me but I spent most of my time on developing pedagogy for the school and created a vibrant environment for that unique experiential and experimental architecture.

The five years of hardcore academics made me work 24/7/365 to make this school a "trendsetter", through lectures, talks, workshops, conferences and exhibitions. And through social media network we shared our work and that inspired many new and up coming schools but at the same time made the established ones to worry. However, I believe that the environment where you live and learn architecture for five years of your life in a school is essentially important and needs to be inspirational as well as provocative.

In the year 1978, I landed into architecture by chance at the School of Architecture and Planning, Madras. The school was different in every way. First of all was the scale of the building, the courtyards and corridors that meandered around the building blocks. Though the school was established in 1957 (five years before CEPT), the new building built on modern principles was opened in 1972. It was the design work of a modernist architect FB Pithavadian who was the principal of the then largest firm in South India. A widely travelled man, he did his architecture in McGill University in Canada. Though he was an honorary Head of School, his presence every time in the campus invigorated us in every way. He would drop in to share some of his experiences through short lectures and discussions. Though not a great academic he carried the school with dignity and gave us the freedom to express our thoughts and ideas.

It is interesting to see that The Gund Hall (GSD) at the Harvard done by John Andrews was also opened in 1972 and has a lot of features common to my school, especially the "round columns". John Andrews was an alumnus of Harvard and a direct student of Jose Luis Sert. Sert was responsible for the Carpenter Centre in Harvard done by Corbusier and his office was the local architects for "beton brut" Carpenter Centre. The GSD was not far from Corbusier's building and reflected upon certain features of the building particularly the "round" columns. Both the buildings have many features in common but are different in many ways. The GSD was big and tall, whereas the SAP was short and had those great courtyards and corridors which was almost the life around the cluster of buildings. One could see a rain water spout, a Corbusian feature used in many buildings during the "brutalist" regime and continue even today.

It was not just the building but some teachers did inspire us in the late 70's. The SAP was the only school then in Tamil Nadu with an intake of 20 students per year. Today the Tamil Nadu State can boast of having 83 schools, but how many of them can boast of doing good and having inspirational spaces around them?

Today the architecture education is highly demanding. This is particularly significant with the growing number of schools in the country, almost crossing 450 this year. As the schools have grown in numbers, it is unfortunate that most of them have no idea about the built environment, the "pedagogy" and have a curriculum which is as old as 50 years.

The discipline of architecture and the practice of architecture are viewed as two opposing factions. The subject of architecture has so much widened that it is now purely multi-disciplinary. The problem most of the schools face today is the lack of faculty to teach and the difficulty in finding passionate professionals to be part of academics. It is right time for the fraternity to evolve a process whereby academic development could be initiated to proliferate "pedagogies" to suit the 21st century. We also need to see about having a common platform to deliver "online courseware" to the students on specific subjects that would help them add credits to their program.

VITRIFIED ARCHITECTURE

By Architect Prof K Jaisim

Exploring the expressions of today's built and enclosed environment...

Vitruvius has nothing to do with this article. In a manner of speaking he has been vitrified. So has the dynamic Dance of Shiva. Nataraja is frozen in his dynamism. It is not a tongue in cheek expression. The reality gloom looms over all that is design today. Architecture is yesterday. Tomorrow awaits the instant expression of today like a child whose mouth waters when spoken of ice cream but is denied before dinner.

It is confusing, but reality strikes. Mankind is entering an era of instant gratification, not just in food but all aspects of the human rainbow, including the rainbow. Now is the magic word. In my fifty years of this profession it was a challenge to hunt the width and breath of not just this nation but any that can be grasped to find the material for one's vision. Nature played hide and seek and when least expected would play peek a boo and there before you, glimpsed and flirted the material of one's dreams.

Technology prevails and the circus it performs holds one spell bound. Yes, detailing the performance to every little movement, with precision and synchronized to all elements around it. It is admirable and dominates the attention of the perceived. The audience holds its breath and applauds. Every street wants a performance.

Instant coffee and two minute noodles are the staple food of the present fast food generation. Similarly instant housing and two hour cabins are the demand of the hour. Design is a forgotten myth. Decor is the in thing. Time rules, space forgives.

But the butt of it is architecture suffers. Design dies. Exploration is limited to exclamation! Surprise is not the element, amazement is. Emotions are not subtle and sensitive, but sensational. The quality of the material is limited to its ability to be put up fat with minimum effort to garb the place with a drama that arouses instant gratification.

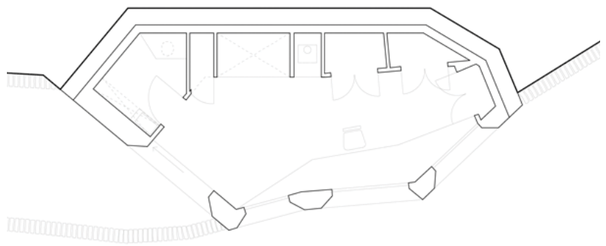
Sustainability is restrained to sensation. The moment the glamour is lost it is pulled down or the dress is modified or changed. It is a fashion hoisted by real-tors to gain the maximum with minimum input.

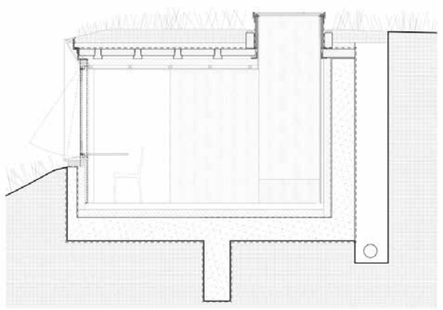
Question and challenge is, how does one confront this change with values? Yes is the answer. But the means and modes are difficult to start with. Requires patience and willingness to learn. There is no gain seen immediately. Take the time and space will smile.
Alas, space is limited and time has no patience; that is the modus operandi of today's practices. The indulging client loves this play and like the child, asks and demands more. There is no sustenance in this game. Change is the name of the style. Avatar is mortified and thus vitrified.

Nature shrugs with a shock. Reality strikes. Art is on strike. Life goes on speeding with great efficiency of anywhere to nowhere. One cannot even sit back and smile, as one is part of the spectrum and have to live and die within. The solution is, join and mock the race.

MORE OF A LANDSCAPE

A Report by Architect Priti Kalra





On hearing a name like Myrtle Cottage Garden Studio, immediately, the images conjured up in one's mind are of a quintessential English countryside with Wooster and Jeeves sitting in their patio indulging in their daily banter over tea. Designed by Bath-based Stonewood Design as a modern interpretation of this very picture, the studio was recently awarded the RIBA South West Award 2015. The building is located in Conkwell, a small woodland hamlet near Bath which was built to provide housing to the workers of local limestone quarries. Owners of a nearby cottage, the clients required a space "to work, sew, play guitar or nap." The studio also serves as a space to obscurely observe the woodland wildlife.

Nested in the garden of the owners' cottage, the building is a small and discrete studio, merely 29 Sqm in area. The owners wanted the studio to be far from their house to feel like a retreat, but close enough to still remain visually connected. The exact location was arrived at after thorough assessment of the site. The

builder had to start digging first, to determine where the large rocks were. The area being prone to landslip and a good amount of rock and woodland prevailing above the studio, a geotechnical engineer was brought to study the topography and determine the safest location for construction.

After deliberating over several ideas, the architect and client arrived at the concept of a *ha-ha* – a traditional recessed landscape element which creates a vertical barrier while preserving views. The building is embedded into the hill on one side and opens up to the vistas on the other. The idea was to integrate the building harmoniously with the undulating levels of the site, thus creating an architecture which is "less of a building and more of a landscape."

The grassy terrain flows over the roof of the studio in the form of a turf roof. A pair of retaining walls made out of local stone, further reinforce the structure into the site. The exterior facade has been finished with panels of patinated copper which lend the building an earthy look. The zig-zag arrangement of windows in the facade maximises the views from different angles. An effort has been made to frame certain views, to particular trees and to the American Museum across the valley.

The journey to the studio is interesting. After a series of mossy steps, one arrives at the entrance which presents in the form of a particularly large, hinged glass door. On entering, you discover an unusually low ceiling which establishes the feeling of a secure retreat. Through careful detailing, the perception of thick walls has been created which further compounds this feeling. A softer material palette has been selected for the interiors. A wall clad entirely in rough sawn timber panels incorporates a sofa, a wood burning stove and cupboards.

On moving further, a wet room reveals itself from behind this wall, lined in polished copper and fitted with concrete fixtures. The bathroom and cupboard doors feature neatly recessed rectangular handles. The wall opposite the oak-lined one consists of fenestration along its entire length. The landscape outside meets the sills of the expansive windows and continues inwards in the form of a long oak desk.

Apart from the wet-room, all the functions of the studio have been assimilated in one fused space forming a seamless succession of spaces. A prominent feature of the design is the clever positioning of skylights in the flat, sedum roof – one above the sofa and another above the bathroom sink – which flood the interiors with natural light as well as capture striking views of the trees overhead.

As a whole, the design encompasses all the basic functions needed for daily life. On a more philosophical level, it combines man's primeval urge to be surrounded by nature as well as a more civilized need to be sheltered. It can safely be said that the studio is a most minimal architectural intervention which nevertheless manages to make its presence felt. The local deer have accepted the structure as a part of their home by not only strolling around it but also walking over it – an observation which bears further testimony to the fact that the concept envisaged by the architect has been successfully implemented.

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www.dezeen.com/2015/06/19/stonewood-design-weathered-copper-pavilion-wildlife-hide-english-cottage-myrtle-garden-studio/
www.ideasgn.com/architecture/garden-studio-stonewood-design/

RISING FROM THE ASHES

A Critique by Architect Aparna Ramesh

At the end of a long road with sombre factory blocks on either side, the Vitra Fire Station is a vivid explosion of concrete, metal and glass. Here, time and space distort to give way to the dynamic sculptural form and all conventional rules of physics simply cease to apply.

Shards of rugged grey concrete jut out from the ground at sharp angles and a breathtaking roof overhang, also in concrete, pierces the sky as it holds itself in the air in a permanent state of tension. Only a few narrow slits of glass attempt to break the solid walls of raw concrete as the building curves along the end of the road. Geometrically irregular volumes slide past each other in a stunning visual expression of extreme speed and unleashed force.

The Deconstructivist style of architecture seems to be a fitting response to the devastating disaster that created the need for a fire station.

On 20th July 1981, a raging fire broke out just before dawn in the Vitra furniture factory in south-western Germany. Sparked off a by a bolt of lightning, the fire almost instantaneously destroyed a large portion of the company's production facilities. When faced with the monumental task of rebuilding the factory from scratch, Vitra's chairman, Rolf Fehlbaum chose to commission the best names in architecture, the likes of Nicholas Grimshaw, Alvaro Siza and Frank Gehry, to design an ensemble of distinctive contemporary buildings that transformed the Vitra factory from a nondescript production plant to a unique architectural destination.

As part of the new cutting-edge Vitra campus, Rolf Fehlbaum commissioned a state of the art fire station to house the company's volunteer fire brigade. The architect commissioned to design the high profile building was the then relatively unknown Iraqi-British architect, Zaha Hadid. Having spent the previous decade lecturing and sketching, the 43-year old Zaha was, simply put, a paper architect - one whose designs had lived till then only on the drawing board.

Zaha's drawings were a polemic architectural response to the political and technological changes impacting society at the time and her sketches

for the Vitra Fire Station are especially thought provoking. In stark contrast to the rectangular outlines of agricultural fields and suburban homes in the surroundings, the architecture of the fire station is conceptualised as fragments of sharp edged parallelograms formed when lines of perspective crisscross, warp and converge at a curved horizon. Jagged forms erratically break, bend and collide as they fly precariously through a limitless space. However, what makes the building truly ground-breaking is that the essence of these complex drawings is wholly translated to the third dimension.

In a way the Vitra Fire Station takes modernist architect Mies Van der Rohe's Barcelona Pavilion a step ahead. For the Barcelona Pavillion, Mies dissolved the enclosed box into a magnificent composition of separate planes, each with its own distinct identity while still retaining their inherent orthogonality. Designed over half a century later, the Vitra Fire Station takes this experiment further as it willfully breaks the rule of the right angle with its daring angular lines.

While it can be debated that modernism broke free of the rigidity of the enclosed box in an attempt to explore functional freedom for new building typologies, the Vitra Fire Station uses the experiment as a means to achieve photogenic supremacy in the Vitra campus.

Inside the building, the conflicting angles create a sense of light-headedness, leaving the user slightly off balance. The walls are almost never straight and always either slightly curved or titled. Space is fluid as one part of the building seamlessly blends into the other. Stock details like skirting, floor finishes, window and door frames are abandoned in favour of brutally rough minimalism. Scars of light embedded in the concrete ceiling illuminate the volumes at night. The pièces de résistance are the five sleek black metal rods placed parallel to each other, dramatically slanting up to the floor above to form a practical handrail for the concrete staircase.

The Vitra Fire Station served its original purpose only for a few short years after which it was converted into an exhibition space for Vitra furniture, a function that the abstract geometry and striking silhouette of the building was more likely suited to fulfil.

While much has been written about Zaha Hadid's work in the two decades since the fire station's unveiling, there's no doubt that the formal ideas that conceived the avant-garde design have left a lasting imprint on world architecture.

Information credits:
Zaha Hadid: Complete Works by Zaha Hadid, Aaron Betsky, Published September 8th 2009 by Rizzoli.

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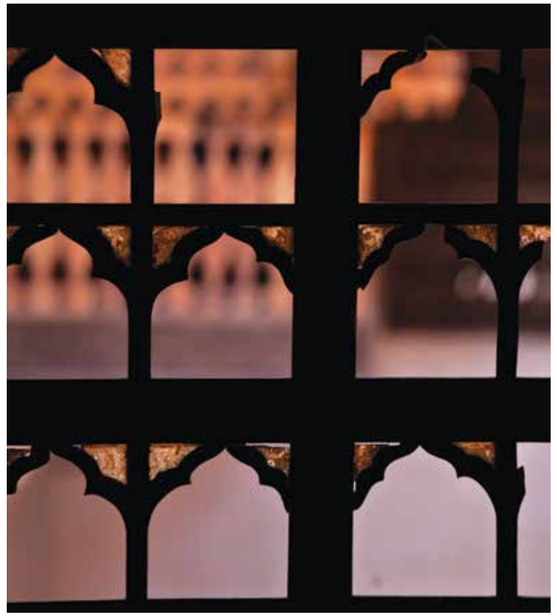
DESIGN CRITIQUE
ANTARYA

A MONUMENT IN WOOD

It is exotica in wood, an exquisite display of fine craftsmanship in a structure erected predominantly in wood. **Interior Designer Mahesh Chadaga** journeys to God's own country to capture the spectacular Kerala architecture revealed in the Padmanabhapuram Palace, paying a fine tribute to our erstwhile craftsmen.

Located at the foot of the Veli Hills, the Padmanabhapuram Palace came up around 1601 AD. The palace was dedicated by King Marthaanda Varma to the family deity Sri Padmanabha. The palace remains as one of the best examples of traditional Kerala architecture. Constructed chiefly in wood, the palace comprises of the Mantrasala, the King's Council Chamber, Thai Kottaram, the queen mother's palace, the Natakasala, the performance hall, the southern palace besides others.



Mantrasala is perhaps the most beautiful part of the palace with its intricate woodwork. The windows have coloured mica to keep heat and dust out while the interiors remain cool and fairly dark displaying delicate lattice work done in wood.

The ceiling and exterior structure reveal the exquisite wood work of traditional Kerala architecture. The floor is a fabulous representation of traditional craftsmanship, made as it is with a variety of substances that include burnt coconut shells, egg white besides others. The craftsmanship was so unique that the floor finish and texture could not be duplicated elsewhere.

HAPPENINGS IN BRC:
AUGUST TO SEPTEMBER 2015

MEMBERS' DAY OUT

It was a day of fun and frolic in the sprawling farm house of Architect Dinesh Verma for the members of IIID BRC. A variety of games including a thrilling tug of war between the ladies and gentlemen left the crowd exuberant. Music flowed to the rhythmic tapping of the feet, with the crowd unable to be restrained any further, breaking into a dance. Activities such as magic show, pottery, trying a hand with the paint brush, had not just the children enthralled but the adults too.

ARCHITECT PRESENTATION: AUTHENTICITY IN ORIGIN

Exactitude, authenticity where there is literally a distilling of design, genuineness of origin, strong play of intuition and critical observation; that is Kerry Hill Architects mode of functioning. This was elaborated by Architect Tanuj Goenka, one of its Directors in the architect presentation hosted by the Institute of Indian Interior Designers, Bangalore Regional Chapter. Noted for its regional sensitivity in design and construction, climate and site specific structure, the style opted in the various projects is conspicuously modern even when fused into a traditional setting. In his presentation, Goenka drew attention to the copious presence of courtyards in the projects, the seamless integration of the inner spaces with the landscape.

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