



Ecolution

Kudos to the Singapore government to choose such an ecological design for Singapore National Library

- Ar. Chitra Vishwanath



Painting Our Green Future

A clean and healthy environment is a legacy that we owe our children and the generations to come

- VP Marketing, Berger Paints, K K Sai



Design Guru

Sustainability is bound to be a presold concept to anyone who wants to live a healthy life

- Ar. Prem Nath

Architecture & Design Newsletter Volume 1, Issue 1 2017

A'n'D KONNECT

From the

MD's Desk

I am pleased to present the inaugural issue of Berger A'n'D Konnect newsletter, which ought to be serving as an effective communication channel for the ever growing community of professionals in the architecture and design fraternity.



Abhijit Roy

We identified that it's time to recognise and highlight the role of sustainable architecture in the country. Hence this inaugural issue of newsletter features and emphasises the importance of going 'green'. Also, we aim to focus on how green architecture is steadily gaining its rightful place as a central concern in India.

Berger Paints is the second largest paint company in the country and it features in Forbes India's list of Super 50 Companies. This company has always been a socially responsible organisation with our deep commitment to a greener tomorrow. We firmly believe that each generation holds the earth as a trustee for its descendants; and we don't preach what we haven't practiced. In fact the Green Pro Certification launched by the CII-IGBC has encouraged us to continue our journey towards a greener future. And, why not? It's a great move to promote safe living and set up healthy working environment.



Innovation has been the core ideology of our organisation and we have lived up to the promise with many pioneering products and service launches. The latest innovation from our stable is the External Thermal Insulation and Composite Systems which saves energy bill by more than 30%. ETICS is highly efficient thermal insulation which results not just in energy saving but much more than that. It is greener and is most environmentally responsible material tested so far. In addition to reducing greenhouse gas emissions, ETICS enhances the aesthetics of buildings.

We are excited to share our findings through this newsletter and look forward to hearing back from you. With the world full of innovations and opportunities, it's no longer about who is going green, but who is doing it best.

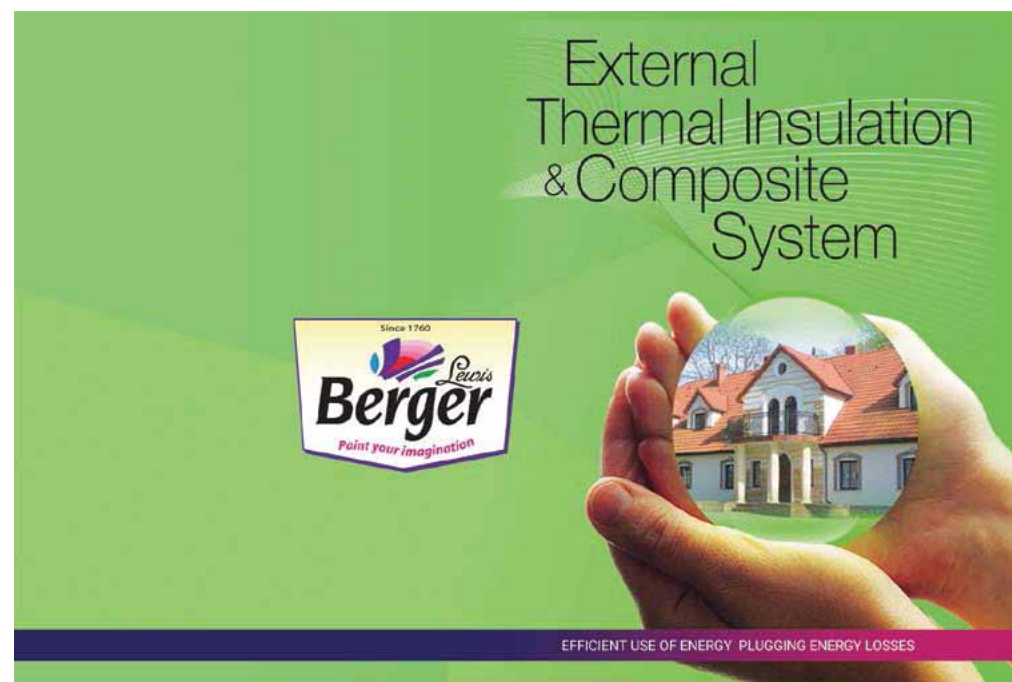
Abhijit Roy

EcoWatch

Boost Your Building's Energy Efficiency

Thermal insulation is the best way to reduce carbon footprint. It helps not just to conserve energy and natural resources for the next generation but also has a positive impact on the global environment.

The thermal protection of both existing and new buildings can be effectively achieved by using the thermal insulation externally. When talking about external wall insulation systems and the linked top-coat renders, we refer to them as ETICS or External Thermal Insulation & Composite Systems. ETICS conforms to a set of globally acknowledged standards which take into account



the procedures and installation techniques related with the systems. These standards were historically established in Europe, but have since blowout to all the parts of the globe.

The system contains components including the insulation materials (EPS Board or Mineral Wool), layer of adhesive, mechanical fasteners, a reinforced layer with fibre glass mesh and the top coat finish renders to reduce the amount of energy

needed for cooling/heating.

The top coat finishing layer of ETICS successfully refreshes the external face of a structure. Indeed, suitably designed and detailed ETICS retains a fresh, clean appearance for a substantial period of time.

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Guest Editor Column

How Blue Is The Red That Was Green-Yellow?

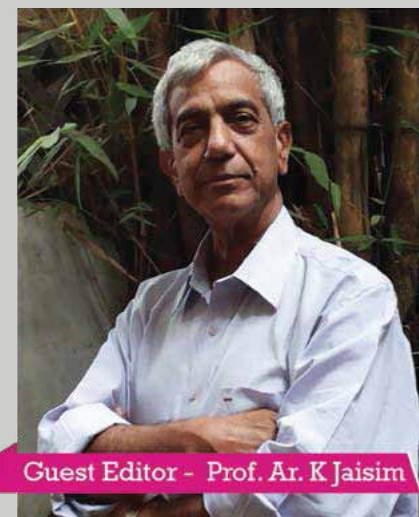
Green, green, green, how green is the green-built environment? Architects all over the earth without exception are in a state of confusion, smuggling solutions if not answers. The environment is crucial especially for life as we know and comprehend.

The human urban world is growing at a scale never known before. Even before we can find a solution for one issue or another, a new issue crops up. These are not just physical problems, but many are even spiritual.

Human history has never confronted the disturbances

that affect and effect one and all. There is no geo-political region that is not witnessing these disturbances. Communication confronts and, in a way, confuses life goals and long-term objectives. The rationale is that information is easily accessible and by the time it can be absorbed, the knowledge flies free. Wisdom just watches as a witness, totally lost.

Short-term goals, swiftly without notice, play a chaotic game to change the order. In spite of all the disturbances, the challenge of change somehow drives a momentum that defies conscious consciousness. There



Guest Editor - Prof. Ar. K Jaisim

are many schools of thought, and rightly so, but the issue instead is of a dialogue to comprehend the differences; there is fury and angry assertion. Communication is confounded.

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Design Guru

For A Greener Tomorrow

One should not “sell” sustainability – it is bound to be a presold concept to anyone who wants to live a healthy life within that building and wants to save a bit of natural resource for their future generations, says veteran architect and interior designer Prem Nath. Winner of many national and international awards, including the HUDCO Design Award 2015 for Green Architecture, Nath, Founder and CEO Prem Nath and Associates, a complete design organisation, speaks on how green architecture has always been part of his work and design philosophy.



Ar. Prem Nath

How do you feel sustainability is progressing in the Indian market and among professionals?
Whatever you call it ‘sustainability’ or ‘green architecture’ or ‘green rating’ or any other name – today, all this is a fad – if you honestly ask yourself, sustainability was a way of living in our ancient culture too. Pick up any historical design and you would find them most sustainable – it’s just that we had got deviated from these facts, we had got influenced from the so called ‘modern’ designs and had started designing energy guzzlers and eco-dampening structures – I have always been designing sustainable structures.

Are there any key selling points on sustainability that you use with your clients?
Today, one doesn’t need to sell sustainability to any client, the know-how and the global awareness has enabled most of the

clients to be aware and be self-inclined to develop a green project. The bottom line for any sustainable project venture that Prem Nath and Associates undertake is based on the triple bottom line (TBL) which consists of 3 P’s – People, Planet and Profit. This aims to assess the financial, social and environmental performance of the project over a period of time.

Where do you think the green movement is going?

The green movement is going the right way, and shall pick its pace soon, with a lot of innovation being brought in and a lot of “Glocal” techniques (global technique being evolved for local use) being developed. While most design principles remain basic to its root, the ever evolving technology and systems enable one to add the extra edge to what is already being designed as green architecture; to give you an example solar glass – which speaks of glass embedded with photovoltaic cells, thus enabling the façade to generate solar power, is one such evolution from the regular glazed façade.

Who do you feel is driving the sustainable movement in the built environment? Is it the designers, the clients, the government?

While I would love to say it is a collaborative effort – the fact is, in most private developments, it is the financial balance and the green norm requirement which drives the project towards an optimum green factor; while the public sector / government projects are fortunately following a mandate to ensure the projects are “green” rated. In both cases, however, an architect is always instrumental to ensure that the best of green is inculcated.



HMEI Residential Township, Bhatinda

Which of your projects (residential or commercial) do you consider as sustainable high performance design?
Amongst many, two of my projects have performed exemplarily well – thanks to a very supporting clientele – the first one being Cygnus World School at Vadodara for Jan-Priya Trust Delhi, which is our country’s first Platinum rated, green building, (that too non-air-conditioned) having more than 1.8 lakh square feet of school complex spread over 7.5 acres of land; and the second one being HMEI Residential Township for HP-Mittal Energy Ltd. at Bathinda. This was awarded Gold grading by the MoEF and is the winner of HUDCO Design Award for Green Architecture 2015 – this itself is the testimony of the township’s green excellence.

What would be your choice of sustainable projects in the world?

I consider the Biosciences Research Building in Galway, Ireland designed by Payette and Reddy Architecture and Urbanism Firm as an exemplary sustainable project. This project takes into fact the existing climate conditions of Ireland and takes into account natural ventilation as the USP of the building design. Natural ventilation is the primary factor that provides air conditioning to the building for more than 75 per cent of the year. Due to this, 45 per cent of this building can function without mechanical ventilation.

What is the need to move the mainstream toward sustainable buildings?

“What is the need?” - look around you, see where the world is going – see how much the “Mother Earth” has suffered and is suffering – the melting glaciers, the lost green covers, ever deteriorating quality of life, ever reducing natural resources, are just a few large scale examples of “what is the need?” – if the mainstream doesn’t shift its focus towards sustainability today, there might not be any so called, ‘mainstream’ tomorrow!

Painting Green Future

A clean and healthy environment is a legacy that we owe our children and the generations to come. Our actions and decisions must not inhibit their opportunities. In our business of manufacturing paints and coatings, Berger Paints has always laid emphasis on sustainability in architecture. It is the integral part and cornerstone of our product development strategy.

K K Sai
VP Marketing, Berger Paints

We actively attempt to minimise negative environmental impact of buildings through efficiency and moderation in the use of paints and coatings.

CII – Green Products and Services Council

has recognised our efforts and awarded us the GreenPro Certification for 30 of our leading paint brands having evaluated them for Product Design, Performance and Stewardship, Raw Materials, Manufacturing Process, Waste Management, Life Cycle Approach and Innovation, etc.

Green Architecture

Green and sustainable architecture is our only hope for ensuring that our future generations can continue to thrive in a clean and green environment. But is it possible to incorporate the concept of sustainability into the building design and its management, hence reducing the carbon footprints? To encourage the green movement in India, organisations like IGBC and GRIHA are certifying buildings as ‘Green’. However, when assessing sustainability, it is important to measure the product’s impact on the building, including the atmosphere, the environment, means of disposal, and durability.

To understand green elements that exist in traditional architecture, let’s take a look at Jaisim Fountainhead, a leading architectural firm that has been practicing green architecture even before buildings began to be certified as “Green”.

- Maximisation of natural resources such as water, air and light.
- Design of space such that there is no wastage of space and every aspect of utilitarian and aesthetic value is considered.
- Local sourcing of building material - this helps to reduce the carbon footprint that is incurred through transportation of materials.
- Responsible and sensitive response to demands of site conditions, e.g. building according to a site’s contours and peculiarities rather than wasting resources.
- Use of Steel as it is one of the most sustainable building materials in the world. Similarly, Hollow Clay Blocks have greater advantages than solid bricks.

Ecolution

Four Green Buildings From Around The World

Green architecture has swept the world - from a tiny movement of hands-on idealists to an increasingly mainstream business sector that erects office towers, research centers and much more. To celebrate Earth Day, we've put together four world famous international architectural marvels which are green yet have innovative designs. The architectural wonders making it to our list are no ordinary ones, for these are picked by the industry experts. And, each of these projects represent green building on a broader, rather more public scale; where energy-efficiency, sustainable raw materials and innovative design come together to touch the lives of many rather than the selective few!

Bahrain World Trade Centre



Surinder Bahga
Principal Architect, Saakaar Foundation, Chandigarh

Inspired by traditional Arabian wind towers to direct the wind sources to wind turbines attached to the building's façade, Bahrain World Trade Centre is a beautiful amalgamation of sustainability, advanced technology and design. It was designed by Atkins with the intention of using renewable energy sources intertwined with sustainable architecture.

The building is a twin 50-storey sail shaped office towers surrounded by landscaping and a business-park, all designed keeping sustainability in mind.

Among many green features, the building has energy efficient fluorescent lighting, solar powered roads and the turbines that create about 11-15 per cent of the towers' total electrical consumption.

Such architectural marvels truly are inspirational!



Bahrain World Trade Centre

Singapore National Library



Chitra Vishwanath
Principal Architect and Managing Director Biome Environmental Solutions, Bangalore

Designed by Ken Yeang, the ecological building has a viewing gallery, offering panoramic views of the Singapore skyline, a reference library, the Drama Centre of the National Arts Council and a 615-seater theatre.



Singapore National Library

The architectural highlight of the building is the incorporation of eco-friendly technologies such as intelligent sensors (rain sensors, motion sensors, etc.) that help to reduce energy consumption. Another sustainable feature is the air-conditioning system, which is constantly adjusted to regulate carbon dioxide levels in each section of the building, in addition to maintaining the desired temperature. Besides, the complex possesses 14 landscaped gardens with 120 species of tropical plants.

Apart from the architect, kudos to the government administration to have chosen such a ecological design for a public project purpose.

Vancouver Convention Centre



Meenu Aggarwal
Director MADS Creations, Gurgaon



Vancouver Convention Centre

Vancouver Convention Centre, the world's first LEED Platinum-certified convention centre, is the perfect display of a physical layout, functionality, and eco-friendly design. Designed by Seattle-based LMN Architects, the Vancouver Convention Centre West features a six-acre green roof, which is the largest in Canada. This living roof features more than 400,000 varieties of indigenous plants which makes it a home to different species of birds, insects like European Bees and small mammals.

Also, it has been uniquely designed to act as an insulator that reduces heat gain during summer months and heat loss during winters.

Besides, the amazing green building also features a sophisticated black water treatment plant that recycles water used for the purpose of rooftop irrigation and flushing toilets. It is a multi-purpose building with the capacity of accommodating more than 65,000 people.

With its unique ecosystem, the vegetated and living roof, the Vancouver Convention Centre truly is one of the environmental innovations.



Vancouver Convention Centre

Eco Watch

ETICS Can Reduce Energy Consumption By 30%*

Continued from page 1



Office building in Kiev, Konstantinowska Street, 32B. ETICS with EPS Board.
Year of completion 2005

Application of ETICS offers a weather-proofed structure, overcoming hard or complex problems of water ingress that may be too deteriorating and more expensive to repair in isolation. Considering the government's interest in energy savings, ETICS can be classified as the best and economical solution for heat insulation, reducing Heat Island Effect and most sustainable solution for the environment.



Nizhyn Agrarian University, Nizhyn, Ukraine. ETICS with EPS Board.
Mosaic render. Year of completion 2015-16

Advantages

1. Most proficient energy saving system.
2. Cost effective with reduction in power consumption in running air conditioners.
3. Highly efficient thermal insulation systems.
4. Durable and pleasant elevation.
5. Lengthening of building structure's life span and strengthening its weather resistance.

* under specific conditions

Ecolution

Green School - A Sustainable Living

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The Green School, Bali



Dipen Gada
Principal Designer and Founder Dipen Gada and Associates, Vadodara

Built on a area of 7,542 sqm, the Green School Bali is a building with a highly controlled material palate; experimented with unbelievable shapes. The USP of the project remains to be liberal use of single, primary, sustainable material- bamboo!

With exteriors that appear to be creatively crazy, interiors kept basic and geometries formed by joining bamboo makes it one of the most outstanding green buildings.

Through this project, environmentalists and designers John and Cynthia Hardy have showcased that how they wanted to motivate communities to live sustainably .



The Green School, Bali

The campus, constructed within a lush jungle with native flora is powered by a number of alternative energy sources, including a bamboo sawdust hot water and cooking system, a hydro-powered vortex generator and solar panels. Campus building includes classrooms, gym, assembly spaces, faculty housing, offices, and bathrooms.



Though the building is not a part of urban fabric; yet it offers the same comfort and amenities.

Guest Editor Column

Is Green Really Green?

Continued from page1

Green or sustainable architecture, as one attempts to comprehend, is mired in self-doubt and fear and uncertainty prevails. This is because of the tendency to compromise and please the powers that are.

Nature? Is that what one desires to communicate? How does technology play its part? Thinking is profoundly a human exclusiveness, and to act on it is the individual's prerogative. Architecture thrives on this module. Not long ago, there was a discussion on: How Red Is Green! It was also observed that nature acknowledges the atmospheric change and instead of fighting, it reinvents itself. The art of change is the challenge.

Human beings are the optimised avatars of nature. The five elements fusing with five senses is the ultimate finite infinity of the genius of man. I can for now define this design only in an abstraction. The alternates that this potential opens up are immense. Classical elements of water, earth, air, fire and ether when they play the leela with light, sound, touch, odour and feeling, it evokes fear followed by an understanding that creates confidence with courage. To overcome this fear is the greater objective. Emotions can fuse the thought into action without rational conscious design. This is what is happening in the built environment today. Thoughtless spaces in time are just juggled circuses that satiate immediate responses.

Let us assume a scenario: if the cost-effective energy efficient eco-friendly architecture is green, then the affluent palaces of the rich with magnificent gardens and fabulous water bodies and every comfort of luxury is what? Where does the Taj Mahal stand? Or, say the White House? All the known architectural wonders of the world lapped the riches. In reality, these spaces are more sustainable than the green economic ones!

Inspiration is the spring source of all creative architectural space. Here lies the shades and shadows of the living and their play on this earth. Imagination is then fired up and the mind starts

searching. But, this is limited by one's exposure and experience. Innovation is the child of the above. It is creative, the known is transformed. This transformation is not as a quiz but as an exercise to evolve. Not an easy task.

The mind in many ways is only an abstraction. The body is what habits these spaces in the march of time. The instructor is not there but very much controls the movement.

Here walks in the great leader 'learning'! Without learning, everything in and around is as good as 'dead' and 'buried'. Life appears to be something else. Life smiles; laughter awakes. The soul lightens and the spirit dances. That is what one ought to seek to sustain ones meaning on this planet. If that be green so be it.

To philosophise is the last search of man. Architecture in its greatness delves in this search. Otherwise the built environment is as good as dead. Stories are born, created and become historical legends. And, in these times, there is an unfounded passion to

scream – build a green world. This is done with neither screening nor comprehending the real depth and sense of the human-built environment in space at a given time with the relevance of content with the context. Culture and ethos are forgotten habitats.

It is time to awaken and comprehend the real depth of the meaning of mankind's role on this planet Earth. And the Earth in context with the universe at large. We humans are at best an insignificant life form that like an ant bites the heel to evoke attention. Yes, there is an irritation which at best could be scratched, but in that action could kill without intent.

I end this adventure into nature for lack of an expression to comprehend the immense infinite of that influence that makes life worth living and count our steps in this space in relation to our time. Also, I hope that the future generation will realise the value of technology, playing in symphony with art, and make this universe and especially the Earth a noble and proud place for coexistence of all forms of life, both animate and inanimate. Life is a force.

www.jaisimfountainhead.in

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