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Structural steel
Transforming cityscapes

Contemporary kitchens
Serving up style

HP DESIGN SUMMIT
Anupama Kundoo inspires

STYLE MEETS SUBSTANCE

MORPHOGENESIS' RECENT MONOGRAPH
SHOWS THE POWER OF CONTEXTUAL YET
AESTHETIC, SUSTAINABLE ARCHITECTURE



IN CASE YOU
FALL INTO THE
BELOW-40 AGE
BRACKET AND
THINK THE IGEN
CAP FITS YOU,
DO WRITE IN TO
LET US KNOW

THE SEARCH IS ON!

While I sign off the February issue with the Morphogenesis combination of substance and style on our cover, my mind is racing ahead to the April issue. After all, with our anniversary just around the corner, it is time to put on our talent scout hats once again and check out the portfolios of potential iGens. As most of you know, this tribe of young architects and designers who we have thus named, are those who have earned their stripes thanks largely to their idealism and innovation – among other positive characteristics beginning with the letter ‘i’.

We have already scanned the world of Indian architecture and design over the past six years or more to unearth talent that is buried under the mountain of built projects that are being executed in our urban spaces. Each year, we showcase a new crop – so we have a population of 300 on this planet so far. If you fall into the below-40 age bracket and think the iGen cap fits you, do write in to let us know.

As usual, we appeal to resident denizens of the new planet to help us seek out like-minded peers from the industry that they have made their profession. In the past, the most exciting finds have been made through clues dropped by both established and emerging practices about youngsters with passion and potential. Of course, we do our homework before we throw the spotlight on them – checking out their thoughts and actions through an examination of their work.

What you need to do if you have any suggestions, is to send a message to the email id below with the subject line: iGen 2018 candidate. It would help if you send us contact details, so that we could get in touch with them right away. If you yourself are a potential iGen, then lose no time in writing to us with your bio-data and samples of work. If you tick all our boxes, you will definitely hear from us.

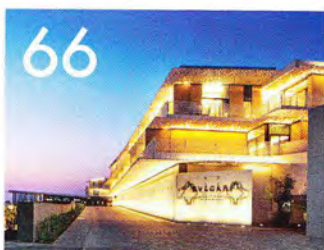
Now that I have got this important iGen alert out of the way, I must draw your attention to the monograph of the moment. When we received this beautiful compilation of work by Morphogenesis, founded by Sonali and Mani Rastogi, we could not help but decide to share it with our readers through a book review cum portfolio of the design firm's seminal projects. After all, their work and journey towards excellence in design is an inspiration to younger practices.

Our feature on structural steel is another must-read, as it documents buildings made of steel that have left an impact on architects of repute whose work is equally inspirational. Contemporary kitchens have come a long way from the back of the house and, with rapidly changing lifestyles, are often given prominence as part of the living room. Check out our product spotlight for the latest in kitchen design and the reports of our successful information and networking events.

Here's looking forward to an inbox full of messages titled: iGen 2018 candidate!

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FEBRUARY 2018 VOLUME 9 ISSUE 11



Cover: Manit and Sonali Rastogi of Morphogenesis (pg20); Photograph: Vibhor Yadav

20

PORTFOLIO

Decoding design powerhouse Morphogenesis' philosophy through a review of the monograph featuring their seminal projects.

30

SPECIAL REPORT

The HP Design Summit dwelt on the state of architecture today, discussing how innovation and technology are shaping our world.

36

FEATURE

From rural Africa to Tirupati, structural steel is shaping modern projects with its flexibility.

46

PRODUCT SPOTLIGHT

Contemporary kitchens are dovetailing style, technology and functionality.

54

EVENT

Jaquar Design Confab in Pune brought together personalities from the design and allied fields.

62

INTERVIEW

Korean architect Minsuk Cho talks about architecture and its political importance.

66

INTERNATIONAL CASE STUDY

Dubai's new Bulgari Resort blends Italian craftsmanship with Middle Eastern essence.

82

THE BIG PICTURE

Brinda Miller's new collection, Vanishing Point.



IN SEARCH OF EXCELLENCE

MORPHOGENESIS' NEW MONOGRAPH SHOWS THE POWER OF CONTEXTUAL, SUSTAINABLE ARCHITECTURE

BY CAROL FERRAO

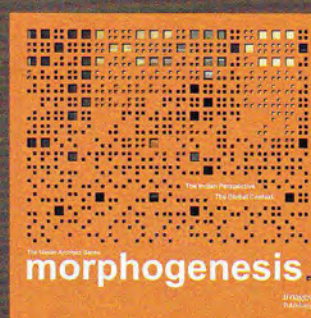
More than an architectural practice, Morphogenesis has often pegged itself as a "knowledge firm". Honestly, this outlook and approach is justified. Just take a look at their recently unveiled monograph, and it becomes evident why this 22-year-old practice has been successful in creating sustainable models, ones we can all learn from. Called 'Morphogenesis: The Indian Perspective. The Global Context', the book is a publishing exercise that is bound to inspire a whole generation of architects and design enthusiasts and help us see the relevance — and practicality — of contextual designs.

When Manit and Sonali Rastogi started this practice in 1996, after their time at the Architectural Association London, they found themselves (if we can borrow Dickens' words) at 'the best of times, the worst of times'. "India was at the cusp of globalisation, and that presented incredible opportunity, albeit in very challenging conditions," recall the principal architects. If there was as much chaos to battle with in this changing economic scenario, there was also the opportunity to create a social impact that could bring order and direction — not just for their practice, but also for architecture in the country.

Did the practice manage to achieve that in the years that followed? In his foreword for the monograph, Los Angeles-based writer Michael Webb (who has authored more than 20 books on architecture and design) alludes to just that. He states, "Every Asian city is with a multiplicity of crisis...architects like Morphogenesis must sometimes feel as though they are carrying buckets of water to extinguish a raging inferno. But the power of example is immense." We couldn't agree more. Especially, when we look at projects like Pearl Academy, India Glycols HQ, Infosys Campus, The British School... all showing that scale, typology, climate are no limitations in achieving a truly sustainable, modern, contextual building.

What differentiates them as a practice is not just their ability to create sustainable structures. It is their ability to design relevant modern forms with clever juxtaposition of traditional wisdom and modern tools that deserves every bit of appreciation. If at one place, Pearl Academy relies on traditional low-cost thermal insulation technique using *matkas* (earthen pots), in the very next we learn how the fluid self-shading courtyards were derived through an extensive computed daylight performance analysis. "It is this bridge between tradition and modernity, where the work of the practice is positioned. Thus, we like to think of our work as the Indian perspective in the global context," explain the Rastogis.

Even when the practice goes "global" in their approach, it is in service of better design, to create a habitable, contextual space. It isn't technology for technology's sake. Throughout the monograph, the pages illustrate, both with words, pictures and drawings, how this fine balance is achieved. "Their skills with computer techniques are deployed as powerful tools for the control of the metric of energy efficient design in a social and economic context," writes Professor John Frazer in the note 'A New Architecture', seen in the book.



1. Manit and Sonali Rastogi, founders of Morphogenesis.

ABOUT THE FIRM

In 1996, Manit and Sonali Rastogi founded Morphogenesis with a shared vision of defining a new emergent Indian architecture. If we glance through their work executed during the past two decades, we see the fruitful realisation of this vision across India, and even in SAARC countries and South Africa. This constant innovative streak has been possible because the firm comprises a vibrant cross-disciplinary team of architects, interior designers, landscape architects, urban designers, 3D visualisers and researchers, with diverse backgrounds and specialisations from universities the world over. Together, they seed sustainable ideas into different projects, whether it is masterplanning, residential, commercial, workplace, institutional or hospitality; through in-house integrated project delivery in sustainability, interiors, landscape, digital technologies and design management.

Recipients of over 75 international and national awards, Morphogenesis — with its offices in Delhi and Bengaluru — aspires to take brand India global. And in so many ways, it has achieved just that. It became the first Indian practice to win at the World Architecture Festival (2009), the Singapore Institute of Architects SIA-Getz Award (2014) and the Architects Regional Council of Asia Award (2014), besides being a five-time winner of the Indian Institute of Architects Award for Excellence in Architecture. The practice has been consistently ranked as one of the Top 100 architectural design firms worldwide by Building Design Magazine UK in WAT100 (World Architecture) from 2012 to 2017.

Some of their key clients include Ascendas Singbridge, Tata Housing, TRIL, Mahindra Lifespaces, Maker, Adani Realty, Piramal Fund Management, Ambuja Neotia, Trump, Bharti Land, Infosys, Wipro, ITC, BSE, Zydus Cadila, The British Council, Micromax, RP-SG, Ascott, Starwood, Lalit, ITC Hotels, Somerset and IHG.



Every design solution from Morphogenesis tries to address four fundamentals: sustainability, affordability, identity and livability. These parameters have defined the enquiry process in projects capturing a diversity of people, culture, wealth and climate. "This has elicited varied architectural responses from us, which sit within an ongoing dialogue and investigation into sustainability through passive design, resource optimisation and contextual identity," explain Sonali and Mani. Thus, the monograph chronicles 26 projects that are neatly divided into three distinct sections: Passive Design, Resource Optimisation and Contextual Architecture.

PASSIVE DESIGN

Central to the concept of sustainability is passive design strategies, and Morphogenesis has been able to implement these in the most exemplary way. The first section of the monograph details how such strategies help in achieving an energy-efficient building even on a massive scale. From the famed Pearl Academy (Institutional, Jaipur) to the Infosys Campus (Workplace, Nagpur), we see how clever orientation and modern interpretation of traditional knowledge have been effortlessly translated into contemporary structures.

In particular, Morphogenesis has been exploring the courtyard typology in their designs. One of their earliest projects, the Apollo Headquarters that is featured in this section, shows how their understanding of this typology helped them evolve newer models for future projects. "We won this competition in 1997. This project is when we first started looking at computational strategy and exploring the thermal comfort bands," shares Mani. The HQ is divided into four blocks, each nine metres wide. "The reason it's nine meters wide punctuated by the courtyards in between, is that you get daylight from two sides, which gives you a 100% daylit floorplate," he explains.

Internal and external courtyards ensure maximum daylight, as well as help create a virtually blinds-free environment. The terrace gardens also provide a high level of thermal insulation. The courtyard floor is punctured and embedded with glass blocks that stream in natural light into the base-

2. Learnings from Apollo HQ helped Morphogenesis evolve the courtyard typology for future projects.

3. Glass insertions on the courtyard floor illuminate the basement during the day. In the evening, the indoor light functions as façade lighting as well.

PROJECT DETAILS

The project: Apollo Headquarters

Location: Gurgaon, Haryana, India

Client: Apollo Tyres Ltd.

Architecture & interior design: Morphogenesis

Structural consultants: Mehro Consultants

HVAC: Dewpoint

Plumbing: Saviram

Electrical: Sunil Nayyar

IBMS: Johnson Controls

Curtainwall: Al Karma

Landscape: Dr. Iyengar and Parivartan

System furniture: Teknion

Signage: Intex Systems

Built-up area: 100,000sq-ft

Year of completion: 2000

Climate: Composite

Photographer: Jatinder Marwaha

ment during the daytime; and reversely, at night, the internal lighting functions as façade lighting as well. "We came up with this solution keeping the affordability, economy of this building in mind," Mani discloses.

This courtyard typology with its many meeting spaces challenged the hierarchical structure of Indian workplace then prevalent. "This spine was positioned in such a way that, anytime you went to any point in the building, you would have to pass through interaction spaces," he explains.

The architecture here also adopts an arts and crafts approach, which is most apparent in the design and execution of the sculptural external fire escape staircase in rippling stainless steel. "The external fire escape staircase was very difficult to achieve; it went up and was taken down three times, because the prime contractors couldn't make this ribbon-like railing which we had designed to catch the quality of the



4. The student housing complex at IILM utilises the street-court morphology seen in old Delhi settlements.

5. The brick façade functions as a high-performance shell, while simultaneously being low in maintenance as it weathers well in the harsh climate.

sunlight. We employed local craftsmen who made utensils, and they got it right in the first go," informs Mani.

Besides the Apollo HQ, readers can also study passive design strategies employed in Pearl Academy, India Glycols HQ, GYS Vision, Mahindra Luminaire, Delhi Nullahs, Zydus HQ, and Fort House in this section. So efficient are these strategies that a graph in the book details how five projects, despite being of varying scale and nature, still manage to exhibit EPI (Energy Performance Index) about 70% less than the GRIHA Baseline of 140 EPI. That's taking Green to a whole new level of implementation.

RESOURCE OPTIMISATION

Each section opens with an essay, followed by a detailed

PROJECT DETAILS

The project: IILM

Location: Greater Noida

Client: Ram Krishan and Sons Charitable Trust

Architecture: Morphogenesis

Structural consultants: BMSF Design Consultants

HVAC: Apostle Design Studio

Plumbing: Apostle Design Studio

Electrical: Apostle Design Studio

Landscape design: NMP

Built-up area: 175,000sq-ft

Year of completion: 2013

Climate: Composite

Photographer: Jatinder Marwaha, Morphogenesis

analysis of select projects. The second section of the monograph begins by stating that "affordability derived from resource optimisation is as crucial to sustainable urbanism as environmental protection and socio-cultural sustainability." To imbibe this principle, Morphogenesis looks at processes in nature and how nature creates maximum impact with limited resources, and with almost zero waste in the end. This strategy is expounded through projects Uttarayan, Amarnath, IILM Campus, Adani Shantigram, The Lalit Suri Hospitality Institute, Chettinad Health City Auditorium and The British School.

At the IILM Campus, the affordable, humble brick is utilised to create a commanding architecture. This student-housing complex, situated in the existing campus of the Institute for Integrated Learning in Management in Greater Noida, is a derivative of the urban court structure, cluster and street living of Shahjahanabad, and the old settlement of Delhi.

Brick is used as the primary façade material because the region is known for its traditional brick construction. It also



PROJECT DETAILS

The project: DAG Modern, Mumbai
Location: Mumbai, Maharashtra,
Client: Delhi Art Gallery
Firm: Morphogenesis
Design team: Sonali Rastogi, Neelu Dhar, Rohit Sharma and Sumeet Kumar
Plumbing: MJ Consultant
Electrical: MJ Consultant
HVAC: MJ Consultant
Built-up area: 7,000sq-ft
Year of completion: October 2013
Climate: Warm, humid
Photographer: Deepshikha Jain



6. Delhi Art Gallery in Mumbai, was restored using an adaptive reuse approach.

7. Two distinct rafter ceilings that were added at different times, were exposed and unified in the new design.

functions as a high-performance shell, while simultaneously being low in maintenance as it weathers well in the harsh climate of the region.

Here, the courtyard morphology plays with volumes and heights to allow for maximum shading and also generate a microclimate, making the outdoor space pleasant for most part of the day. Daylight analysis helped articulate the façade whilst ensuring optimal light penetration. Indoor gathering spaces have been located below ground and are open to large earth-banked subterranean courtyards. The subterranean landscape areas are articulated with water features and seating spaces to enhance student use.

Comprising four blocks, each with their own internal communal spaces, the campus maintains a great visual field. A series of interaction spaces in the form of voids spiral up the form – creating, in a way, a vertical urbanscape that overlooks the central spine and the courts. For Morphogenesis, this approach was crucial to ensure an atmosphere of

safety and security. As much as it is traditionally inspired, the street-court morphology is also inspired by American-journalist Jane Jacobs' theory: "There must be eyes upon the street, eyes belonging to those we might call the natural proprietors of the street."

The spatial character of the built-form contributes to the day-to-day socio-cultural ethos of the student community. Optimising resources through material and morphology also allowed for reduced built-form without reducing functionality.

CONTEXTUAL IDENTITY

Morphogenesis strives to instill in their projects a sense of place, a regional identity that will aid its sustainable lifecycle and keep the structure rooted in the local context. It then has the ability to be an "iconic" structure in the truest sense of the word – a representation of something bigger than itself. Elaborating this aspect of Morphogenesis' thought process are the projects Artisan House, Delhi Art Gallery, Harley Davidson



India, Kumarakom Resort, 2 Hailey Road, The Courtyard, ITC Campus, RP-SG Headquarters, Desert Habitat, and Architects' House + Studio.

Designing the Delhi Art Gallery, Mumbai, needed careful evaluation, as the four-level gallery sits in a century-old building in Kala Ghoda. The challenge was to restore and recreate the heritage value, without imitating in an anachronistic way. After researching colonial architecture and studying patterns and materiality of surrounding heritage structures, an adaptive reuse approach was adopted. While the ground and first floors had to showcase artworks, the next two levels had to accommodate the gallery's permanent collection, a sculpture courtyard with auditorium, private lounges and gallery offices.

The building exterior needed an extensive overhaul; years of defacing had to be peeled off. The original wrought iron and stucco that remained, were blended with floral motifs that were extrapolated from the surrounding buildings, arranged in geometric and rhythmic patterns. In order to maintain the heritage quality, the need for signage was met in the most complementary and subtle manner. One side of the building façade was originally bare, with almost no decorative elements. Pilasters were added so as to continue the design thread, while also cleverly concealing services within them.

Over the years, the building went through many changes. The ceilings, in particular, were constructed at two separate points in time – one in stone rafters and the other in wood. To unify the two styles, expose them, as they talk of the building's history, was a design challenge that was successfully addressed. The spacious stairwell, too, was restored to its past

PROJECT DETAILS

The project: Architects' House + Studio

Location: New Delhi

Client: Undisclosed

Firm: Morphogenesis

Architecture team: Sneha Sah, Vijay Dahiya, Sachi Gupta, Chandra Prakash and Shubhra Dahiya

Structure: Optimal Consultancy Services

Plumbing: Spectral Services Consultants

Electrical: Spectral Services Consultants

Landscape design: Morphogenesis

Interiors: Morphogenesis

Built-up area: 16,000sq-ft

Year of completion: 2007

Climate: Composite

Photographers: Amit Mehra, Edmund Sumner and Jatinder Marwaha

glory by eliminating the more recent elevator shaft, and it now towers as an airy sculpture. In its restored glory, the DAG Mumbai adds value to the already historic Kala Ghoda area. Standing poignantly right across the amazing Blue Synagogue, it shows how contemporary restoration can be mindful of history while also being relevant to present times.

Another example of contextual architecture, is the Architects' House + Studio, where the planning, orientation, structure and materiality of the house respond to the essential passive energy-efficient techniques suitable to the Delhi

8&9. The Architects' House + Studio responds to the passive energy-efficient techniques suitable to the Delhi climate. The lap pool helps with heat absorption on the top terraces.



10



9

climate. This residence multitasks as a house for a three-generation family, a busy workspace (architectural studio) and, on occasion, a cultural hub. It is organised in overlapping spatial categories split into three levels: the private domain of the nuclear family (bedrooms and breakfast room); the shared intergenerational spaces of the joint family, such as the family room, kitchen and dining areas; and the fluid public domain of the lobby and living spaces.

The house incorporates high thermal mass in the west, earth damping for the basement studios, landscape buffers on the south, high-performance surfaces on the east and a large cavity on the barrel roof. Additionally, the lap pool helps with heat absorption on the top terraces. The courtyard concept has been radically re-interpreted and, along with landscape, earth, daylight simulators and carbon-dioxide sensors, it is an entire ecosystem living and growing in the heart of the house.

The materiality is arranged in crisp, clear planes that are articulated in local limestone, local hardwood and concrete. While the materiality of the opaque surfaces is highlighted as light picks up the various textures of these different planes, transparency is achieved by a combination of glass and water, through reflections and modulated natural light.

Each featured project is a treat to the eyes and the mind. In so many ways, it is Morphogenesis inviting each one of us to share their quest for good design by laying bare the knowledge they have amassed over the years. Christopher Charles Benninger explains it best in his essay, when he writes: "The story of Morphogenesis is a narrative of continual search for excellence and relevance in a rapidly changing urban context, technological milieu, and transforming economy." **ACI**

10. The materiality of the house is arranged in crisp, clear planes that are articulated in local limestone, local hardwood and concrete.