

Home > South Delhi > A free-wheeling chat with a green visionary - Architect Manish Gulati

# A free-wheeling chat with a green visionary - Architect Manish Gulati

Wednesday, 17 June 2015 - 9:03pm IST | Richa Taneja

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Manish Gulati, Principal Architect, Manifestation of Fluid Architecture (M:OFA)

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Architects have a huge responsibility because the spaces they create,

“I think the best possible example of architecture is to create a building which nature accepts and thrives on. If nature grows over your building, if the tree, plants, leaves, insects, birds, animals

always affect the psyche  
of the individuals  
dwelling in it.

accept your architecture, it is your first win; but if  
nature rejects it, then you are doing something  
wrong."

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This insight about architecture comes from a contemporary architect who is grounded to his roots. He's someone who reveres nature, borrows designs from ancient Indian architecture, understands the vernacular design of a place and juxtaposes the indigenous with the contemporary. The result? An exemplary, thoughtful form of architectural manifestation that is a cut above the rest!

Meet Manish Gulati, Principal Architect of Manifestation of Fluid Architecture (M:OFA) who is blending creativity with modern technology to create spaces that are long-lasting.

In his words, "Only after a newly-built house has faced every season - From the burning heat to the chilling cold, has been drenched all over with rains, swept with the wind, only when it has learnt to live with every living creature, from birds to moths to dogs, cats and human beings, only after it has withstood the test of time, it becomes architecture."

In a freewheeling chat with Richa Taneja, he talks about sustainable buildings, green homes, implementation of Vaastu and architecture as a career choice. Here are his pearls of wisdom:

### **What does a Smart Green Home entail?**

If you look closer at our traditional Indian architecture, sustainability has been a way of life for us. For instance, if you observe the villages in Kerala, a unique practice is followed where each part of a banana tree is still utilized frugally for either medicinal or religious purpose. This is the starting point of understanding sustainability.

A Smart Green Home entails zero wastage; it means that you manage three basic criteria – water, energy and waste control. When you say that you have managed your water requirements in such a way that you have become self-sustained or manage your energy requirements in such a way that you live off the grid or create a house where your in-house waste is completely re-used within the house and does not go out into unregulated landfills, that is when you have prompted a structure towards building a truly Smart Green Home.



A green home designed by M:OFA in Malviya Nagar. With a terrace garden, glass windows and systems to circulate energy, the place thrives on sustainability and longevity.

### **Why should urban India be concerned about sustainable green homes?**

We, in India have a huge population to cater to. A permanent human influx happens every day from tier-II and tier-III cities into the major urban centers of India and these metropolises are exploding at the seams. If one does not start channelizing water, energy and manage waste from initial level, there will be an outcry due to the scarcity of some resources or overabundance of waste materials.

Now the questions of concern are - Where do you throw the waste? How much do you dispose off? Is Yamuna not already polluted enough? Aren't these landfills around Delhi and NCR overflowing? Every city is facing problems concerning these three fundamentals and if we don't start managing them now - we will go into a system where everything will start falling apart.

### **Are green homes budget-friendly?**

In architectural scenario, the concept of budget is quite subjective. Design is the key to controlling budgets everywhere, so if you are able to design with alternative materials or recycling, budgets can be controlled.

The need here is to look at a system which works in the long run, requires less maintenance and a cost-benefit analysis can be done as per that. This way, design would become an enhancement in future, making sustainability a part of our lifestyle.

For instance, the dust factor is high in Delhi, so using photo-voltaic roofs, which work perfectly in European conditions may not work that efficiently here, so you need to adapt from your need into less mechanical and more self-sustaining systems.



The Pensieve, a budget-friendly experiential installation was designed by M:OFA for India Design 2014.

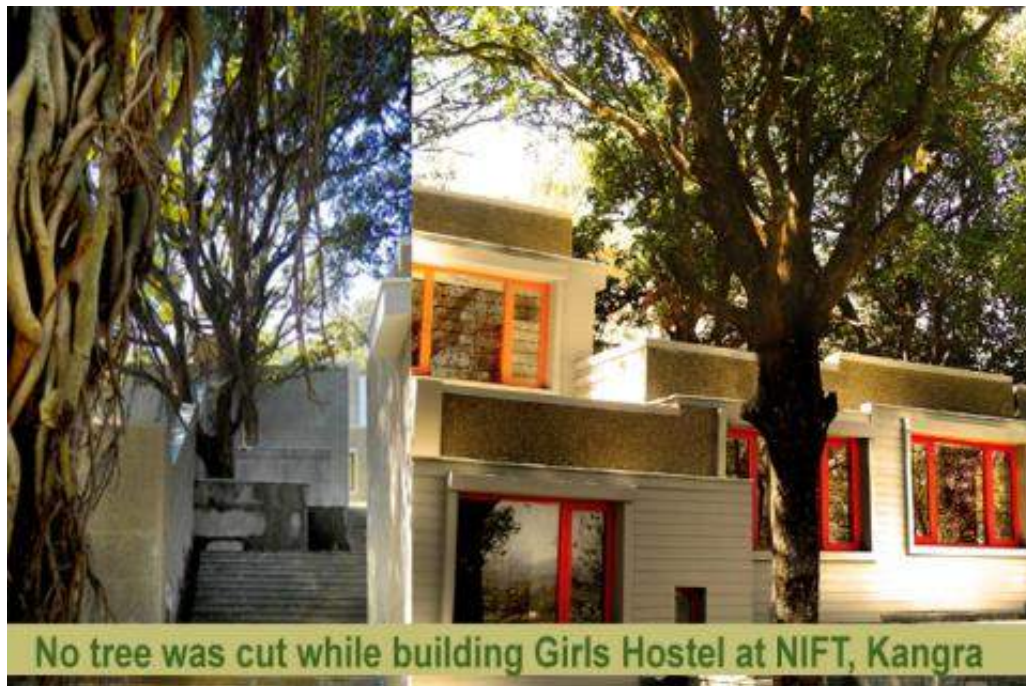
### **Do you believe in Vaastu? While designing a space, is that something you keep in mind?**

Vaastu has been misunderstood over a period of time. It is based upon 5 principles of nature – space, air, water, earth and fire. When Vaastu principles were written, the functions of the buildings were restricted, the buildings were either houses, institutions or may be palaces, but today, with the coming of newer building programmes like shopping malls or MNCs, there has been a shift and the context of how we view Vaastu has changed over time. What is advisable here is to not blindly follow Vaastu but to seek the logics before applying it. It is essential to understand the essence of any science before application and Vaastu Shastra is one of the ancient sciences.

While designing, if I have taken care of the 5 principles of nature i.e., Earth, Air, Sun, Space and Water, then I have taken care of Vaastu and that is how I approach it.

In National Institute of Fashion Design (NIFT), Kangra, we designed a space in such a way that nature would remain undisturbed. We did not cut even a single tree and designed the hostel around trees. Architecture has to co-exist with nature and that can only happen if there's reverence towards nature.





National Institute of Fashion Design in Himachal Pradesh has roof gardens and the design blends with nature as if they were one.

**In your works, you mostly stress upon borrowing from the roots and reusing materials. Tell us more about your sustainable projects and how can they be replicated to fit different terrains and suit the environment.**

When we designed the head office for Delhi Pollution Control Committee (DPCC), it was designed to be an exemplary model and the challenge was to make it completely environment-friendly and help in cleaning up the pollution too. After our research, we decided to use bricks and panels using cement with Bentonite clay. Bentonite clay mixed with certain other additives over the wall surfaces can absorb the smog, particulate matter and can act as a filter to clean the air. So the air from the three parking lots in the office would channelize through these walls so that the air that is emitted is filtered, thereby, affecting the micro climate and air quality of that area.

Secondly, we are also using recycled wood from shipping industry as the wood used to design crates during shipping, which would otherwise go to landfill, has a unique property. It has, over the years, seasoned well on salt water and can withstand a lot of pressure. This quality of the wood is the key for us and acts a cushioning material. Added perk is that it is highly cost-effective.



DPCC building has been designed to set an example. The building is under process.

In DPCC, we are collecting rainwater in large tanks in the basement which surrounds the entire parking area. It has two benefits; the surplus water will go to the ground after collecting but collection of this large water reservoir will take care of the drinking water requirement for the entire office, which effectively means we are not taking water from the outside.

A tunnel-like water tank runs around the basement (where the temperature automatically drops) and helps in bringing the temperature of the entire building down. We ensure that no system works in isolation; each system benefits the other and in effect benefits the entire building, the micro climate and the macro climate.

Using Sewage Treatment Plant (STP) with a larger capacity by pumping in extra sewerage from the drain close to the site enables the place to produce its own electricity. From the STP we get methane, water and solid waste which is further treated. The gas goes into the bio-engines to generate electricity and to be used in the kitchen and pantry for cooking. The water is used within the toilet for flushing systems and also as chiller water for the air-conditioning system within the building. Solid waste which was turned into manure is to be used completely for the terrace gardens and the greens to create a humidified micro climate and bring down the temperature within that area.

**Do you think there is a skilled labour deficit in the country? Are the students entering**



## architectural industry equipped with right skills to handle projects?

Till today, architecture is not being completely understood as a profession in India. We still lack this cohesive approach because we have colleges which are talking about theory and they are good with theoretical implication of design, but there are no institutions with an elaborate system of Architectural Education that equips students with skills as basic as carpentry or masonry. If you don't know how to use a material, if you don't know how to cut wood or any basic joinery, how are you even going to design something? If you don't know your construction detailing, how will you design?

Construction details, exposure to the industry, sensitivity to the context, working at ground level and doing enough research on the context is pivotal for any architectural study. Most of the institutions or offices don't emphasize on research before they work on a design. If you have not understood the traffic pattern, human movements, climate, socio-economic implications, you cannot design in an urban scenario because the building is not going to function and you cannot have any of the designs working in isolation.

MENU **I am in dna**

SOUTH DELHI



Indigenous jali work was used for ITM School of Business to give a boost to the local artisans and give the place a traditional touch.

## What would be your tip to students wanting to pursue/pursuing architecture?

Anyone opting for architecture as a career must understand their responsibilities first. Architects have a huge responsibility as the spaces they create, always affect the psyche of the individuals dwelling in it and the same is reflected in their persona.

Architecture is a combination of multiple fields. It is a **Top** science, philosophy, engineering, and psychology packed into one. If you are someone who has a good grasp over these subjects, have a strong passion for creating something valuable, something that is going to survive for the years to come and has the ability to change human lives, then I think this is THE profession for you.



Young architects at M:OFA studio recycled old loud speakers, TV monitors, shipping wood to make a colourful, creative space they would love to work in!

### What do you think about this?

▲ Interesting

5

▼ Not Interesting

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After defeating BJP's Sunil Vaidya with a margin of 17,000 plus votes in 2013 assembly polls in the capital city, AAP's Raju Dhingan showed that people in the Trilokpuri constituency were keen to give chance to a fresh candidate. Contesting yet again from the same assembly seat in the trans-Yamuna locality that was hit by riots in communal tensions last year, Dhingan seems quite confident of his win. Excerpts of his conversation with iamin:

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#### Bawana JJ colony, Shahbad on MLA Ved Prakash's priority list

First time ML A from Bawana constituency. Ved Prakash claims that he is determined



First time MLA from Bawana constituency, VCU's Manish Gulati claims that he is determined to improve government machinery in the area. Since the election results were announced the AAP MLA has been visiting every government institution in his constituency and holding meetings with the officials. Iamin correspondent caught up with him while he was taking a visit of Bawana DTC depot and addressing the issues related to the public transport in the area.

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### बहराइच में आरटीआई कार्यकर्ता की हत्या का काशी में हुआ विरोध

"आरटीआई कार्यकर्ता की हत्या अभिव्यक्ति की स्वतंत्रता पर हमला है। बहराइच में जिस तरीके से आरटीआई कार्यकर्ता गुरु प्रसाद की हत्या की गयी उसका हम पुरजोर विरोध करते हैं।" यह बात राष्ट्रीय छात्र संगठन, साझा संस्कृति मंच और गुमटी व्यवसायी कल्याण समिति लंका के पदाधिकारियों ने आरटीआई सहायता शिविर में आरटीआई कार्यकर्ता की हत्या के विरोध में कही। राष्ट्रीय छात्र संगठन हर गुरुवार को शहर में लोगों को सूचना के अधिकार के प्रति जागरूक करने और उनकी सहायता के लिए शिविर लगता है। आज यह शिविर लंका स्थित टंडन

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