

# The Intuitive Architect

*Architect Mona Doctor-Pingel graduated from the School of Architecture, Center for Environmental Planning and Technology (CEPT), Ahmedabad and did her Masters on Appropriate Technology from Flensburg University, Germany. She started her design practice in Auroville in 1995. Her firm Studio Naqshbandi offers a personalized approach to holistic design solutions with focus on Baubiology (Building Biology), sustainability and activating the five senses through architecture, interiors and landscaping.*



In 1987, in her third year at CEPT, Mona came to Auroville for training with another student. At that time not many trainees were taken in by architects of Auroville. Mona recounts her experience, "I had no plans of joining big design firms. My interest at that time in college was on low cost housing and I happened to meet architect Laurie Baker during the NASA in Chennai in 1986. He suggested the name of architect Poppo Pingel in Auroville who had done a lot of research on low cost buildings, for joining as a trainee. This I can say was the beginning of my journey into an unexplored territory of architecture that comes from life's inner aspirations and the context of the landscape around." Not surprisingly, Mona kept coming back to do projects in Auroville and finally settled here in 1990.

## The Work

There is an unspoken policy of using locally available materials in Auroville. One for the reason of keeping the built form practical and sustainable and secondly, the nearest city Chennai to procure specific building materials is 160km away. Talking about her work Mona says, "I like to work with vaults and domes for roofing because of their inherent structural advantages, thermal cooling benefits, use of locally available

materials, labour intensive technology, reducing the use of reinforced concrete and scope of natural ventilation that they offer. Many a times, we experiment with building materials using traditional recipes and often custom design building materials on site as per the project requirement. For example, to make a vault with exposed compressed mud bricks in a school building, we moulded conical bricks at site to give a finished look with minimum joints when seen from below. However our testing of mixing alum, egg yolks with the shell lime for waterproofing of domes did not work out as after four-five years, the surfaces started showing fungus due to humid weather. The use of second quality broken tiles instead on outer surface of domes and vaults is a success and provides a good reflective surface to reduce internal the solar radiation. We have also experimented with bio-concrete using locally available limestone as concrete aggregate instead of the usual granite chips. The architects as well as the residents here are willing to experiment and learn from their mistakes which offers a great opportunity to young architects to develop their skills, work with their own hands and open their minds to unconventional ideas."

Studio Naqshbandi sees a continuous stream of young architects and trainees who work with Mona in

When an outsider comes to Auroville, he gets introduced to the unique concept of the city. On the other hand, the city too opens itself to the outside community for questioning its work, philosophy and way of working.



Temple Tree, 2011



Temple Tree, 2011



Temple Tree, 2011

experimentations and exploring of new facets of architecture, interior designs and construction techniques. Her work is considered sustainable and modern yet sensorial and rustic; simple yet rich in details. The liberal atmosphere of Auroville gave her the opportunity to apply concepts like optimum use of solar energy, reduction of electromagnetic fields at places of regeneration, waste water recycling, rainwater harvesting and landscaping with indigenous and water-resistant plants in a holistic manner. These are not add-on features, but are an intrinsic part of her designs.



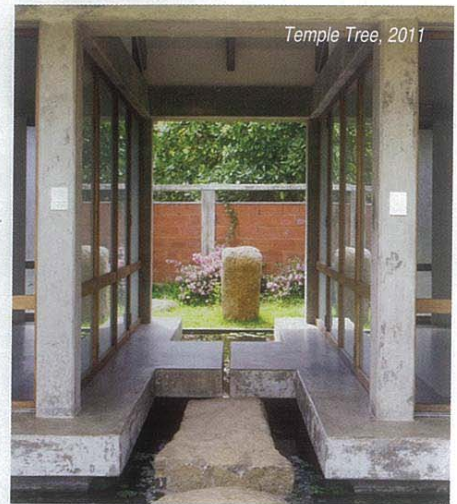
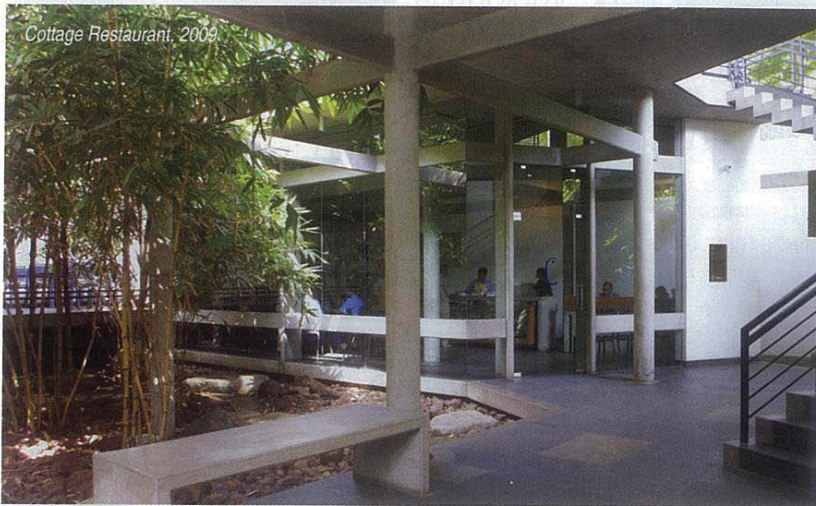
## SUSTAINABILITY

Mona elaborates, "The inside-outside relationship does form an important part of my practice since I like to see the built form with its surroundings rather than in isolation. Another key guiding principle in my work is the creation of buildings which are healthy (building biology, sick building syndrome), taking into account factors like electromagnetic

fields, use of natural materials and earth energies."

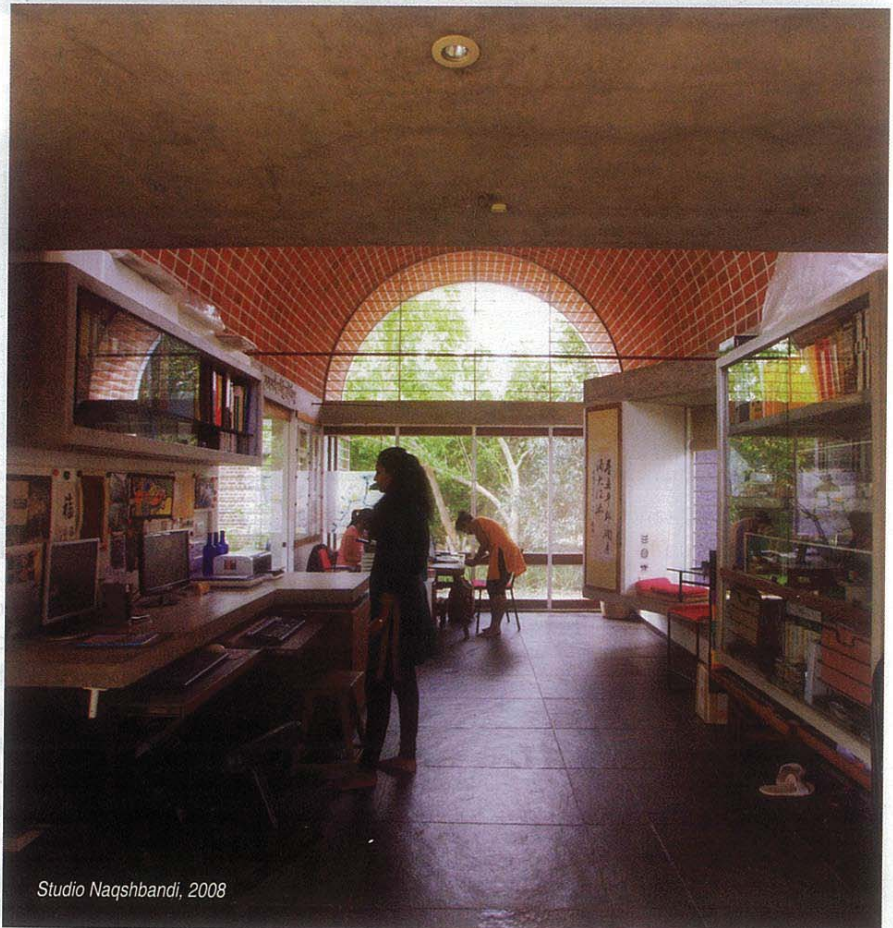
The architects of Auroville generally do not believe in publicizing their work, which in a way sieves out the designers who sincerely want to learn something different. "Trainees come here because they have either heard about Auroville from their seniors, seen the kind of work done

here or have been recommended by their professors to me. As I take only one or two trainees, it is important that they should be comfortable with the idea of living away from the city in an unconventional surrounding and lifestyle. Most of these young architects are here as they are driven to hands-on experimenting with design and materials and this is



**Ar. Mona**

A non-commercial set-up as in Auroville, has given me the freedom to explore and experiment in different ways. I strongly believe that the consciousness one puts into the design and building process is bound to show in the end product.



something that continues to attract students from all over. To work in my studio they have to get their hands dirty” says Mona.

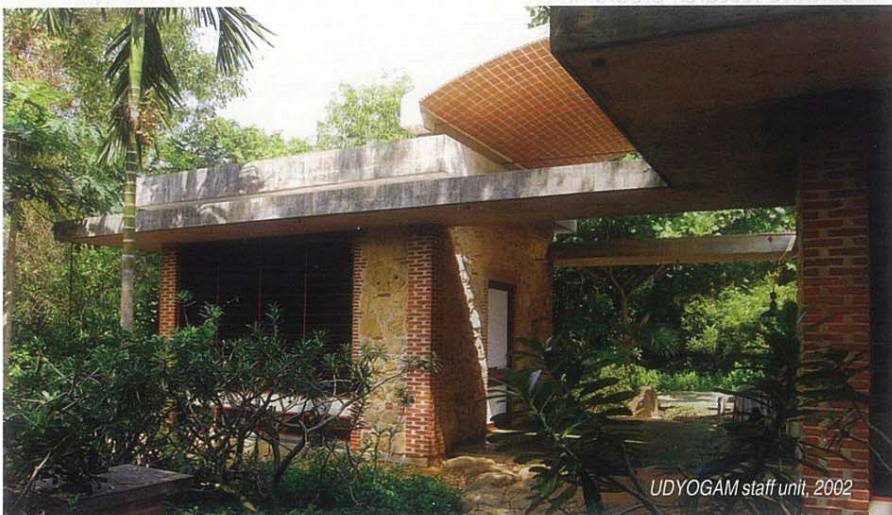
## The Projects

Mona’s projects include individual houses in Auroville like the one where she has constructed walls of load bearing un-finished lime stones randomly set in lime mortar. This offers not only an organic look but also keeps the indoors cool in the hot and humid climate of the region. Another of her works is her own office which incorporates a high vaulted ceiling and deep projecting canopies. The openings near the ceiling and the shaded entrance porch with water feature in the front

provides cool natural ventilation. The landscape though carefully planted to add finishing to the project, seems completely animate and natural off-shoot of the site. Local plant varieties are used creatively in the open spaces needing minimal maintenance, while fishes in the water pond near the entrance keep the standing water clean.

The Temple Tree Retreat designed by Mona and her team at Auroville for Nalin Patel and his wife Gabriella is a six bedroom guest house designed with an open plan architecture. The modern style finished concrete structure, in spite of its engineered look creates an elegant atmosphere devoid of any industrial feel. The 1000sqm retreat includes luscious tropical gardens

with individual porch and garden for each room, spacious common lounge and veranda area for interaction with other guests as well as hosts. Architecturally a blend of Western and Asian influences, the low lying building is set in a green surrounding with lily ponds with fountains, a roof garden and a small swimming pool. Temple trees, bamboo, Bougainville vines and other greenery are framed through open doorways, creating a myriad of Zen watercolors. The natural breeze passes over the encircling fish pond that cools the air before entering indoors, keeping the temperature in the residence comfortable all day through. Rough granite stepping stones allow guests to enter the house through the pond. Functionally, the beautiful pond also prevent crawling insects from entering the main structure. The large sliding folding glass doors connect the inside with the outside, extending the living area on to the deck of the water pond. In the bedrooms, the beds are placed against a free standing wall which acts as a divider for the dressing and toilet area behind. The wall with bright texture finish forms the focal point on one side and offers wardrobe space on the other side. A semi-private garden and an open-air courtyard rock garden with two temple trees are a pleasant addition. The adjacently placed meditation and Ayurvedic massage



## SUSTAINABILITY

rooms are also surrounded by the fish pond and designed in such a way to allow for privacy but with wonderful ventilation. The garden is watered from the biologically treated grey and black water and solar water heaters provide all the rooms with hot water.

Another project, The Cottage restaurant in Pondicherry is a poetry in concrete. From the busy market street, a discreet entrance in a concrete wall leads to a ramp that opens up to a quiet green oasis in the midst of a noisy city. The single story structure is built around a central open to sky



Studio Naqshbandi, 2008

courtyard with bamboo plants. The concrete was intentionally used not only for longevity but also to provide a buffer from noise pollution outside.

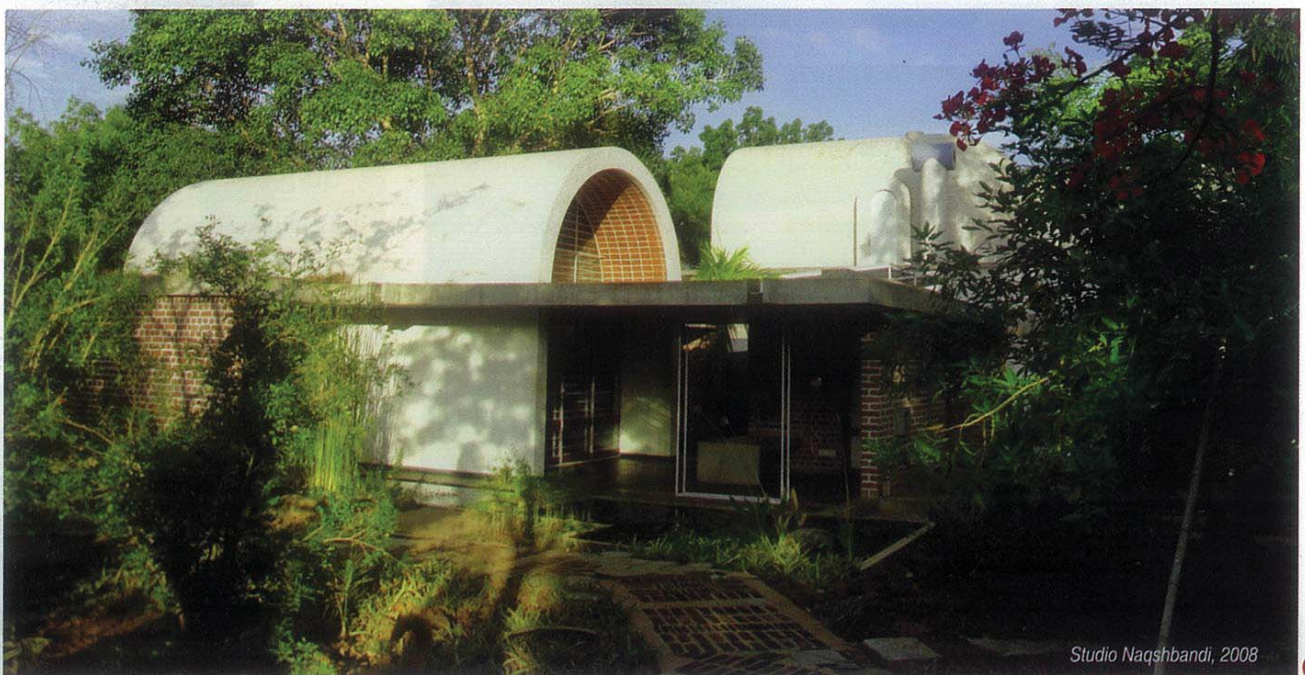
"Most of my work is in and around Auroville as I would rather take up challenging and interesting projects here than regular construction work that does not excite me. I am currently working on a project in Surat, where I am involved with designing an Integral Yoga Centre of a management university and a residential project in Bangalore. My current field of exploration also includes teaching at various architecture schools and hands-on workshops for design students."

### Research & Writing

Mona is also part of a U.S. - India collaborative research programme to promote innovation in building energy efficiency contributing to significant reduction in energy use in both nations. She is the only practicing architect in the group with rest of the members either researchers or professors from prime institutions like IITM, IIMA, CEPT, University of California Berkeley, University of Carnegie Mellon, etc . Mona's focus area in the research will be on performance evaluation of naturally ventilated buildings and the specific strategies employed.

Currently, she is working on a series of Monographs on the works of pioneering architects of Auroville, who have dedicated a major part of their life and work to Auroville. Mona strongly feels that the quality, innovation and perfection that Auroville stands for today owes a great deal to the early pioneers who came and worked relentlessly to create the physical basis of Auroville. They set standards from which future generation of designers could take inspiration.

The first in the series of these Monographs released at CEPT University by B.V. Doshi is the monograph of Poppo Pingel's work, spanning his career till date, analyzing the influences that formed his personality as well as his contribution to Auroville. Next monograph in pipeline is on the works of Piero and Gloria Ciconesi. "There is no comprehensive literature available on Indian architecture by Indian authors and specifically about Aurovillian architecture. Innovation and experimentation have become synonymous with Auroville. Thus, the body of projects here demands serious documentation and archiving for future reference, relevance and possible replication in other regions," says Mona on a concluding note.



Studio Naqshbandi, 2008