

# BUILDOTECH

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Interview with  
Pavitra Sriprakash  
Chief Designer and Director  
Shilpa Architects Planners Designers



# Integrating Culture, Art & Architecture

***Shilpa Architects Planners Designers** is an international award winning architectural design firm founded in 1979 by **Sheila Sri Prakash**, an architect & designer internationally acclaimed for trendsetting indo-centric and environment friendly designs. In 2004, her firm acquired SGBL Studio, an architecture and urban design firm with offices in Chicago, New York and Seoul. She also executes high-end turnkey design-build solutions through a wholly-owned subsidiary called Stone Lotus. **Pavitra Sriprakash**, the second generation architect and urban designer is the Chief Designer and Director at Chennai based Global Design Studio of Shilpa Architects. She talks to Buildotech about the firm's design philosophy, her own architectural perspective and what it means to be part of a legacy.*





Sheila Sri Prakash

## The firm's growth, direction and learnings from founder Sheila Sri Prakash

Being one of the few women-led organizations in the field, Shilpa Architects has always had a different approach to design. The firm believes in providing unique solutions to each and every design problem, and always takes into account the ecology, geography and the humanity that is to surround the architecture. Shilpa has always had a focus on sustainable architecture and is known for her socio-economically sensitive planning. After graduating from School of Architecture and Planning, Anna University and Masters in Architecture and Urban Design from Columbia University I joined the firm. Having practiced urban design and planning in New York and Chicago, my own work has been India focused since 2008.

The basis of evolution of design is as important as the end result in itself. As long as any design solution takes into account the requirements for the community and nature to flourish, it will automatically be a unique architecture that cannot be copied or reproduced in any other context than the one it was intended for. The biggest influence and inspiration for me is the city and the complexities within which it functions. Living and working in New York will always be my biggest inspiration. The layers within which the urban fabric works has always fascinated me. There is so much learning that comes from a simple understanding of the demographics and the nature of the space.



Pavitra Sriprakash

*Being a second generation architect, there is a lot to learn from the experience and foundation that has been provided by my mother. I am proud of the fact that she is the first Indian woman architect to be named as "Top 100 most influential architects in the world, by the Journal of Architecture – Il Giornale dell' Architettura and I am fortunate to be part of that continuing legacy.*

The Muse - Global Design Studio



## The design approach and working methodology for a project

An important element to accept is that the process of architecture is non-linear. We are all taught that we progress on a project step by step from planning a concept, to understanding references and contexts etc. Real projects are much more dynamic and require lateral thinking. The first thing we do while starting a project is to consider all the parameters that are likely to influence the design solution and deal with all of them at the same time. It is important to balance between costs, time, requirements, energy usage, and programmatic use. The firm adopts a lateral approach to any project, which involves a series of iterative discussions to arrive at the final solution. We encourage our clients to interact and participate in the design process, as the evolution of design has to account for their needs at the end of the day. We also like to keep the process flexible and open so that any updates can be accounted for without much change to original ideas agreed upon.

The construction parameters are often defined at the first few interactions with the client. As a firm, while we believe that all projects need to "sustain", we also believe in Reciprocity as a principle – meaning that a key group of stakeholders can help define the parameters that are important for the shaping of the development. This can vary from implementation of Vastu to the usage of certain materials. The Reciprocal Design Index (RDI) is a benchmarking system devised by the firm and adopted by the World Economic Forum. RDI helps keep an internal checklist on how a project ranks for Holistic Sustainability. The RDI deals on subjects that vary from directly building related issues such as orientation and climate up to the more abstract health and job creation.

## The changes witnessed in the industry during the journey of the firm

Our firm has been in the industry for more than 35 years and has seen the growth pattern emerge over the decades. In the 90's the boom was in new technology and creating new large office complexes whereas in the new millennium the focus has been on urbanization and coping with rural migration and the demand for housing in urban centers. All of this has happened under the umbrella of sustainability and affordability which is indeed commendable. India is the third largest footprint of green buildings in the world and considering this movement began in the west, we have been quick to adapt and follow. A lot of the initial work by Sheila Sriprakash has been in the field of affordability and cost effective design in building technology. Sustainable development needs to be both energy and cost effective for a sensitive economy and these ideals have always aligned to the overall growth story of our urban centers. That way design solutions remain relevant through the various 'development booms' – be it in commercial or residential development of cities.

Today, there are many design firms in the construction industry that have evolved over time with a lot of experience. These players have recognized the importance of organization and a professional setup and are handling large projects. However, with the various economic segments in the country, there are several smaller players still working on informal setups. It is a constantly changing scenario and the market currently lacks the maturity for demanding a highly organized sector in many parts of the country.

At the same time, the professional developers and contractors have started following stringent quality measures. Right from the safety of workers at site to the design process and respect for fellow professionals, there is a lot that has improved in the last few decades.



Change across all sectors irrespective of the scale of the project is where we have to catch up. In today's media, there is a lot of coverage when buildings fail to perform. With this type of widespread knowledge, the market will also start demanding more from the industry in terms of quality and adhering to standards thereby demanding a more professional approach in general

I think the biggest factor shaping our environments is the new empowered Indian, one who is proud and respectful of his heritage, but has enough worldly exposure to demand an outstanding space. With people traveling and seeing past their boundaries, there is the appreciation of what India has to offer as well as the potential of learning from outside. This is what makes a compelling contemporary architecture.

Shilpa Architects design philosophy is based on Socio-Economic-Ecologic Sustainability – Holistic Sustainability.

This can be defined as the creation of socially sustainable development while ensuring the highest levels of energy efficiency for the same.

While today's definition of sustainability refers purely to the performance of the building in terms of energy usage, Shilpa's designs aim at ensuring that a building solution takes into account the economic sustainability of the community at large.

For instance, Shilpa Architects design ideal of indo-centric design closely ties in with India's cultural and artistic heritage while creating and designing modern contemporary structures. All projects engage local artists or local architectural technique that blends in seamlessly within a contemporary framework.

### Role of specialized consultants and international design firms in India

There is no way with the complexities of projects in today's context that the architect can be the sole designer or design decision maker. There is definitely a lot of value add from having specialized consultants as part of any development team. However, I do believe that architect is still the sole decision maker of a project – in the sense, the final coordination between various disciplines have to be vetted by the architects to maintain coherence and a unified design aesthetic. Communication is paramount – we have to make sure the entire team is on the same wavelength and this is only possible if there is a single voice that is constantly reinforcing this.

The trend of international firms coming into the country is one that has seen its peak in the last few years. With growing opportunities in the country, it was only a matter of time before international players came in. The challenge that most international firms face is that they are not prepared for the complexity of the building process in India. The permitting and the decision making process here is truly unique and requires a lot of local know how to be able to work within.

Truly sustainable architecture is net zero. The concept of a building being completely self reliant for its energy requirements is where the next big thrust within the building industry will be. As we move into the future, nothing is certain except growth and new development. There is ambiguity right from the availability of basic utilities such as clean air, water and electricity. With the changing environmental conditions there is more uncertainty of the building context as well. The potential lies in not only for buildings being able to sustain themselves based on today's requirement, but possibly have a system of enhanced sustainability that can provide for future larger requirements as well.

The balance between efficiency of space and cost is where designs can make a difference

Vasavi Ingai

## Preserving the integrity & creativity of the design process

Architecture is considered a creative form - budgets and requirements are not considered creative but mundane. On the contrary, if one were to approach architecture as a form of 'creative solution making' – then the challenge for any designer transforms into working within parameters rather than being constrained by them. These then become opportunities to think outside the box. The best way to tackle budgets from my experience is to design efficient sub-structures. Often times, area requirements and maximization of available area, lead to misaligned structural grids. The result is an expensive structural solution. The balance between efficiency of space and cost is where designs can make a difference. Being able to solve complex area requirements within an efficient structural grid is where the creativity of the architect comes into play.

With that respect, technology and globalization are positives and to think that they come in to replace our vernacular building practices sounds negative. The challenges faced today in practicing vernacular building technology lies in the fact that it is not 'mainstream' anymore. Technology and state of the art is widely accepted as being mainstream and therefore easily available, whereas vernacular technology requires skill and special know-how. The latter also is largely based on knowledge and craftsmanship that is no longer being transferred to the next generation of designers and masons.

While architects can help sustain vernacular technology, the other players in the construction industry should also not chock these as they may be viewed as cumbersome or labor intensive. Technology must augment vernacular building practices and help make them more efficient rather than replace such practices entirely. For example, one of the interesting things we have done at Shilpa Architects is taking a vernacular technique, known as the "Madras Terrace Roof" and re-applying a hybrid high-tech version of it to a modern day house. Traditionally these roofs were constructed by a method of 'brick on edge' on wood rafters which was tedious and time consuming. Instead, by using elements of precast RCC the new-age interpretation of this technique proved very successful by cutting down the time and cost of this traditional method while still maintaining the aesthetic quality of the roof. Further the reduction in the overall energy consumed during the component manufacturing stage provided a greener carbon footprint through this tech enhanced vernacular process.



## Experience of working on international projects

Having started SGBL studio in 2004, our firm has been able to tap into the international expertise as required on projects while having representatives on the ground that have a deep understanding of local law making practices.

International projects are a great learning experience as it gives one the opportunity to view the requirements of a global community thereby giving you a larger perspective on architecture. The other aspect of working on projects outside the country is the opportunity to collaborate with government agencies and other authorities that gives us an insight into how other policies have worked internationally. International projects also tend to be highly collaborative within a project team. There are various experts and consultants from many



different disciplines as part of the team which makes these projects a lot more detail oriented.

I have been lucky as a lot of my earlier projects have been in developed countries including the US and Europe. The planning process is better defined which has helped me stay more organized and systematic in approach to architectural design. This helps to stay issue focused in India, especially since things happen in a very haphazard manner and it is easy to lose sight of the larger issues that could hamper the overall design intent.

Shilpa Architects has recently completed a retail restoration project in one of Singapore's 'Shop House Districts'. Working with the URA (Urban Redevelopment Authority) was a great experience in understanding how permits and processes work in Singapore. A unique building typology, the traditional Chinese shop house building was modified keeping within conservation parameters.

Another recent project for Shilpa is located in Accra, Ghana. The West African residential market is also highly poised for rapid development in the near future and working and understanding affordability on a world wide scale definitely gives us scope to apply our knowledge for the betterment of these areas. The project has a range of budget sized apartments, but since the cost of construction in Ghana is high the affordability of such units is also limited to a certain socio-economic segment. Costing and budgets mean different things in various parts of the world, and having an international portfolio of projects gives Shilpa leverage in this aspect.

## The growth and direction of Indian architecture

Growth is good and we all need to take charge as the ones that will be shaping the environment for the future generation. A lot of new building typologies will have to be developed for the changing need of the future of our country, and developing these will become the task for all the future generations of architects. The lateral thinking approach of Shilpa Architects allows our designs to be relevant across all the varied fields. For example, our

firm is currently, working on growing the Regional Urban Planning practice within the office. Driven by our association with worldwide organizations such as the World Bank and World Economic Forum and our passion for creating Indo-centric sustainable designs, we hope to create regional development plans with a focus on heritage, cultural tourism and economic improvement for many parts of the country.

Sustainability is essential along with new and rapid construction techniques that will need to be coupled with improved governance and permitting process for creating a truly advanced nation. We want to be part of India's growth into the next decade by remaining engaged with the development authorities by shaping policy that promotes and improves the state of our cultural capitals.

Nursing College - Tirechundur



## Some of the landmark projects

As a firm we have a multi-disciplinary practice that ranges across all scales of architecture. We are in the process of developing specialized verticals that deal with design of Educational/Research Institutions and Hospital projects as well.

### Navins Springfield, Chennai

The project was recognized nationally by the CIDC Viswakarma Award as the 'Best Residential Development-2014'. This large affordable group housing with over 400 units was designed keeping in mind the diverse social clientele. Located in a new suburb of the city, the area is prone to flood as it is low-lying. Several new developments in the area have further exacerbated the issue of flooding as the existing levels have been raised with little consideration for the local ecology. The landscape design for the project addresses the flooding issue by maintaining existing grade and levels as far as possible. A system of bio-swales and retention ponds ensure site drainage through sensitive landscape design.

Being an inclusive development,

program was built into the landscape design to further enhance the feeling of community. Place-making exercises included having 'Paandi' (a version of local hopscotch) built into the walking paths by way of street mosaic. Some of the walls have been reserved for the local community to showcase their artwork as well. This gives the community a sense of space and belonging as the opportunity to customize the walls is theirs.

The next phase of development provides programmed landscape areas for seniors with dedicated walking paths and community congregation areas. Another unique feature of the development is the provision of local vendor cart areas. These designated areas are planned within the development for the carts to be parked. These are used for local vendors to carry

out small neighborhood services for the residents such as dhobi and ironing.

### MWC Club

The club located within Mahindra World City truly displays Shilpa Architects design ideal of sustainable, indo-centric, design. Located along a lake, the leisure and recreation club covers over 60000sft of international level play courts and training areas alongside leisure areas including a restaurant, guestrooms and spa. The entire building is conceived as a playful form with curves and levels that seem to 'float' on the water's edge. Through stacked volumes and clerestory areas, the indoor air quality within the club is highly enhanced through natural day lighting and ventilation. When complete the project will be rated LEED – Gold for its extensive use of local and recycled materials.





MWC Club

## The Sandalwood Room, Singapore

One of our international works, this project is part of the Shophouse District at 'Prinsep Street'. The restoration scheme looked at the preservation and architectural restoration of a traditional shop house into a café and galleria store. The façade and development control rules had strict restrictions on the usage of signs and illumination for the store. Further the usage of materials in the interior were also to be fire rated

to the highest grade possible in order to protect the timber roof structure of the original structure. While designing the exterior additions, several local norms were applicable.

As part of the interior upgrade, a portion of the shophouse which was originally a skylight was restored. This gave the long narrow space a lot more natural light. The concept of creating a

sandal tree court with traditional swings hanging in it formed the focal point for the store. All materials used for the creation of shop display are from recycled metal and salvaged wood. The tree itself is made from a collage of salvaged columns from demolished old buildings and the 'leaves' of the tree are made from traditional silk materials from various parts of the world.

Sandalwood Room Singapore





### **Shilpa's Global Design Studio, Chennai**

Our own office achieved a platinum rating making it amongst the first architectural studios in the world to receive this honor. The idea to go green and get rated for our office was very much a tall order as many of the points that we tried to cover were outside the 'baseline' categories as per the IGBC standards. The system of cooling the building by use of a hybrid renewable energy system involves, solar powered AC's which work along with the technology for envelope / slab cooling and a geo-thermal sink.

Designed as two double height spaces with floating levels in between, the office also has a 'no privacy' policy making all spaces visually and audibly connected with one another. This promotes a collaborative design environment, which is in sync with the office's design philosophy.

Keeping the cost-effective practices as a foundation for the design, the challenge of creating this building was in lowering the cap-ex cost of a green building. Many new project teams are posed with the question of life-cycle cost vs upfront cost and are often deterred from making a building sustainable, what makes this building different, is that we have managed to create a truly exemplary building while reducing the cost by up to 8% from a conventional building of similar scale.

Global Design Studio - platinum rated (See Buildotech May issue)