



COURTESY NOOR ARCHITECTS CONSULTANTS



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ARCHITECTURAL MILESTONES 2022

AS THE NEW YEAR BEGINS, IT IS TIME TO LOOK BACK AT SOME KEY ARCHITECTURAL MILESTONES THAT DEFINED 2022. BE IT METAVERSE, SMART HOMES, OR SOLAR POWERED ARCHITECTURE, THERE IS AN EVIDENT INCLINATION TOWARDS FUTURISTIC TECH AND THIS SHIFT IS DEFINITELY HERE TO STAY.

BY BINDU GOPAL RAO

1. The metaverse encourages and allows for the creation, compilation and to generate a repository of ideas.

2. The extensive advancement in technology has evolved our lifestyles in many ways.

3. The Stacked House by Studio Lotus demonstrates how prefabrication allows developing a system that engages with our vast, largely untapped repository of artisanal skillsets.

4. Solar power architecture is being seen with designers who now experiment with creative ways to incorporate these mini energy farms into buildings.



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The year 2022 had several new vistas for the architecture and interiors space, even as the industry tried to come out of the shadows of the pandemic. From the metaverse to smart buildings and more, there were many defining aspects that shaped the industry. Experts weigh in.



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METAVERSE

A breakthrough in design boundaries has resulted in a clean, almost monumental scale space that is encased by inclined surfaces carefully imagined and printed out of clay. The studio space of NOOR Architects Consultants is the very first architecture design studio from India (and amongst a few globally) to venture into the Metaverse. The space is also open for commissions for clients wishing to build in the Metaverse. The studio has developed a range of non-fungible tokens (NFTs) to be sold to meta visitors with digital crypto currency. Noor Dasmesh Singh, Founder & Principal Architect, NOOR Architects Consultants, says, "Our practice studios in the Metaverse are a natural extension of our decade long studio in Chandigarh. The metaverse encourages and allows for the creation, compilation and generation of a repository of ideas which may not be fully realisable in material reality as of now, but are likely to push the boundaries of design and building construction techniques. It is highly likely that the existence of these ideas would lead to engineering solutions that would allow for their construction in material reality in the very near future."

PREFABRICATION

Modular construction as a sustainable and efficient alternative to conventional building methods is making inroads using prefabrication technology. Sidhartha Talwar, Principal at Studio Lotus, says, "In today's fast paced world, it has become

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6. Sidhartha Talwar, Principal, Studio Lotus



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7. Today, most homeowners understand the importance of having a multi-functional homes.

8. Hardesh Chawla, Owner, Essentia Environments

9. In the post-pandemic world, homes are expected to play host to some new activities and functions on a day-to-day basis, in a dedicated manner.

10. Architects have been focusing on lowering energy loads for buildings' lighting, ventilation, heating, and cooling.

11. Designers today are experimenting with creative ways to incorporate solar panels in buildings.

imperative for architects to consider design interventions that guarantee speed, quality, and cost control but are also attentive of their impact on the environment. It is in this context that prefabrication presents itself as a possible alternative. It presents a precise waste free method of construction by slotting together pre-engineered components manufactured off site, making it incredibly time efficient. Apart from this, pre-engineered solutions are also cost efficient, minimising waste on site." This modular practice ensures a high degree of localisation, flexibility, and reconfiguration, offering an innovative solution to the often cumbersome, slow processes of conventional construction. Prefabrication also provides India with the rare advantage of developing a system that engages with our vast, largely untapped repository of artisanal skillsets.

3D PRINTED ARCHITECTURE

3D printed construction demonstrates the potential of a fast-growing technology capable of redefining and pushing the limits of conventional architecture. "As this technique emerges as a viable solution in the AEC industry, its popularity is rapidly increasing. Besides being a faster alternative and available with lower construction costs, it can also provide housing solutions and allow countless design possibilities, among many other benefits. Thus, as architects, we must adapt to a new technological era, where efficiency has become a key factor in design and execution. The rise of 3D printing shows enormous promise in our industry. It helps reimagine building construction without limiting an architect's creativity. This opens the possibilities of architecturally innovative structures that can come to life in less time and efficiency in construction compared to conventional methods. As architects and planners around the world face tough times of uncertainty, labour and housing shortages, or other industry challenges, 3D printing is set to change building planning and execution," says Hardesh Chawla,



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Owner, Essentia Environments. The increased viability, productivity, and optimisation of the building process can not only offer efficient housing solutions but can also become an answer to more sustainable construction.

SOLAR POWERED ARCHITECTURE

Despite the wide diversity of available solar technologies, solar energy systems are still not considered mainstream in building practice. This may be attributed to several factors, such as lack of awareness and knowledge, lack of tools supporting the design process, and lack of solar products designed for building integration. Sneha Gurjar, Director, CEM Engineers, says, "The most common use of solar power is the production of electricity through photovoltaic panels organised in farms or placed on the roofs of buildings. Often slapped onto roofs as an afterthought, solar panels have an unsightly reputation, but that's beginning to change as building designers experiment with creative ways to incorporate these mini energy farms into buildings. Architects have been focusing on lowering energy loads for buildings' lighting, ventilation, heating, and cooling for a long time. With the evolution of technology, PV systems are becoming more efficient and affordable. In addition, developments such as transparent PV glass create more architectural opportunities for integration."

MULTIFUNCTIONAL SPACES

Homes have always multi-tasked to accommodate the diverse needs of its inhabitants. However, in the post-



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12. Prefabrication is a precise waste free method of construction, of slotting together pre-engineered components manufactured off site which makes it incredibly time efficient.

13. Noor Dasmesh Singh, Principal Noor Architects Consultants.

14. Sneha Gurjar, Director, CEM Engineers

15. Arpita Subbaiah, Head of Design at Carafina Interior Designers

16. Internet-enabled home lighting, preset A/C control modes to sound recognition and operating switches on the tip of our fingers are making homes smart.

17. The world has reached new heights of a digital adaption of a lifestyle and this is only the beginning.



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pandemic world, homes are expected to play host to some new activities and functions on a day-to-day basis in a dedicated manner. "As work from home continues to be a reality and going to the gym and entertainment places is still fraught with challenges, clients are keen to include dedicated home offices, gyms, entertainment areas, meditation rooms, etc., into their homes. Today, most homeowners understand the importance of having a

multi-functional home. They are trying to add all features that they feel are a must for them at the time of floor planning itself. Architects and designers too are educating them about the new requirements. It is all about having the communication channel open with the client and explaining the changing concept of home. The designing of a home must follow the mantra of 'utility first and vanity later'. Often, clients are not clear as to what they want, they may just come up with some fancy reference pictures. It is up to the designers to study their client's lifestyle and recommend the best possible solutions. The home must first work at the functional level, the vanity factor can be brought in at any stage later," says Rishabh Kapoor, Founder & Interior Designer, Design Deconstruct. Whether it is adding a completely specked out gym, a full-fledged home office, a yoga and meditation space, or adding these features to existing rooms, they are thinking creatively and smartly towards it.

SMART HOMES

The extensive advancement in technology has evolved our lifestyles in more ways than we would have anticipated only until a few years ago. "Starting from internet-enabled home lighting, preset air conditioning control modes to sound recognition and operating switches through our phones, technology is enabling us to not only save power but also save time. In most cases where children can be forgetful, when an elderly person cannot walk a distance, or one is running late for work in the morning rush hours – accessing our homes on the go has enhanced our lifestyle and made it a lot more efficient considering the hustle culture today's generation thrives on. Bringing in the bright morning rays with automated blinds, having pre-heated baths before getting home after a long day at work, digital locks to secure rooms and homes and video security systems when travelling, the world has reached new heights of a digital adaption of a lifestyle and this is only the beginning," says Arpita Subbaiah, Head of Design, Carafina Interior Designers – India. **RS&**



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