# 17. Navigating Terrain, Tradition and Tomorrow.

Conversation with **Ar. Ravi Sarangan,** Co-founder and Director of Edifice Consultants Pvt Ltd.

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***Intent :***
The intent of choosing an interview about a commercial project for this edition was to explore how architecture negotiates sustainability and contemporary luxury to create aesthetically pleasing and environmentally conscious spaces, with a focus on the selection of environmentally conscious materials. The selected project, Taj Resort and Spa in Rishikesh by Edifice Consultants, aims to illustrate and achieve these objectives. A set of questionnaires was framed outlining the strategies of material choice and management specific to the Resort project. Architect Ravi Sarangan, co-founder and Executive Director of Edifice Consultants, Mumbai provided an insight into how materials and their usage can be dealt with in the real world.

***What architectural elements of the Taj Resort and Spa in Rishikesh are influenced by the local context, including the natural terrain and indigenous construction knowledge? Additionally, how does the layout of the resort contribute to an enhanced guest experience, particularly through the strategic placement of functional spaces?***

Taj Resort and Spa is the morphology of the traditional Himalayan village with a structure that negotiates and creates a dialogue with the contours. The relationship of the design with the rivers and rivulets in the valleys, the materiality, local construction knowledge and memorable collaborations are all crucial determinants of the architectural concept. The location of Taj at the foothills of the Himalayas and the serendipitous presence of the holy river Ganges marked the advent of its design language. Formerly used for stepped farming, the natural terrain of the site invited us to place the built structures on the flat terraces, thereby allowing the untouched parts of the landscape to remain natural and pristine.
The main entrance opens on either side that free flows into different functional spaces. The most extensive flat land transformed into the Welcome House comprises the main building which houses the reception, dining area, bar, banquets and guest rooms. The basement has services and parking with services marked at the highest point of the site. The lowest part of the site, which has a steep drop, houses the swimming pool with an infinity edge overlooking the river Ganges – like the natural extension of the sacred water body. The visitors at the Restaurant placed at the highest point on the site carve out unmatched panoramic views of the river turning – a place of relaxation and repose suspended in mid-air with signature soulful sounds of the river rapids. The main block of the hotel that overlooks the valley creates the image of a traditional Darbargadh[1]. It provides a central location for gathering all the primary services

*Taj Resort and spa, Himalayas (Source : Edifice consultants)*

[1]Darbargadh : Maharajah's palace, an old royal residence that reflects the fusion of Rajput and European styles of architecture.

of the resort: the reception, restaurant, bar, boutique, library, and more. The Central Courtyard plays a vital role and binds all the functional spaces together. The naturally lit open corridors allow functional spaces and a properly ventilated outdoor environment for the guests to experience the stunning views and unique glimpses of the lush green backdrop of nature.

***In what ways does the design of Taj Resort and Spa in Rishikesh embrace local architectural traditions and materials, fostering a connection with the natural surroundings and reflecting the essence of traditional Himalayan villages?***

The design merges with the neighbourhood and magnifies the rustic settings of nature. The site planning mimics the traditional Himalayan villages, anchored around a Darbargadh, the traditional residence of local Rajahs or lords which further translates into the design. The walled courtyard of traditional Darbargadh or the fortress-palace-temples, offer at their heart protection to the villagers in times of war or serve as socialising space promoting community life in harmonious times. Local materials like - stone for cladding the structure along with hardwood battens in ceilings, raw carved wood as bands along with the organic colour palette merge with the green oasis outside.

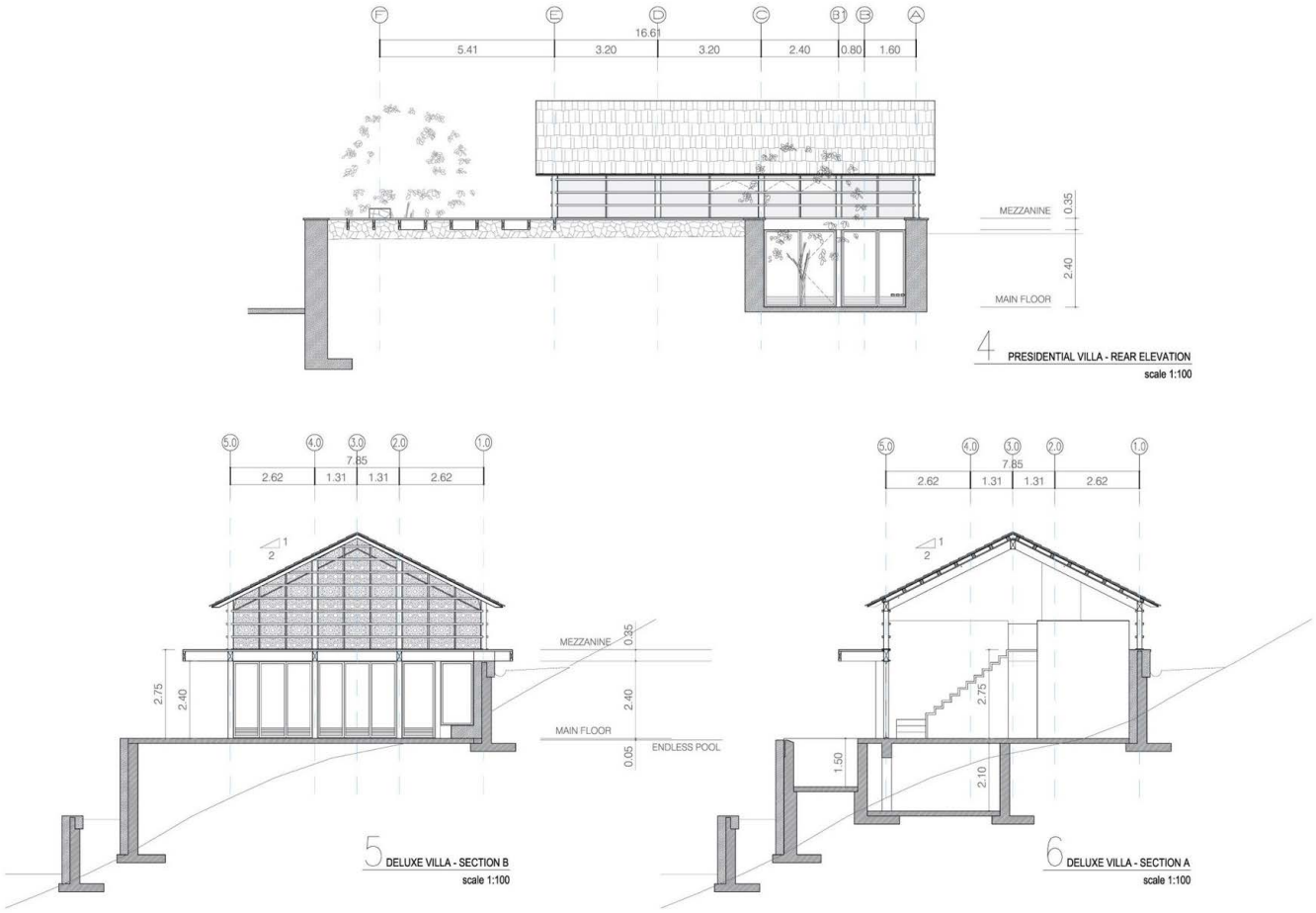
***We often demonstrate sustainable designs as a system i.e., it endures a cyclical process of resource management. This may happen at the scale of site/ contextual analysis, design/form orientations, and the choice of facade. What were some of the decisions that animated this project as a sustainable system?***

Sustainability has multi-fold aspects of this project. First, there is an aspect of social sustainability; a responsible attitude towards understanding the built environment of the region and faithfully complementing the typology and spatial structure in a contemporary designer environment. Secondly, sustainability is addressed in the use of materials. For the most part, materials used in this project are sourced regionally and have been treated to reflect their true character, texture, colour, and nature. Our ideas of sustainability, respect for local architecture, and the desire for a space to relax and repose, find a voice in our materiality and detailing - local stone cladding, wooden finishes and the slate roof brings out the vernacular familiarity in the buildings. The interior spaces are the design extension of the exteriors. The social spaces designed to enjoy the verdant views of the river and the greenery makes Taj an exclusive getaway for the explorers.

***Technology has its implications on the quality of material, its utility and the innumerable choices we have as designers. What are some of the advanced systems that have been adopted in your projects?***

At the start of the project, we were engaged in significant research on techniques to clad a concrete wall with large and heavy 200 mm thick stones. The solution lies in devising an ingenious technique to hold the traditional stone wall in place using modern drywall cladding techniques. This process entailed using a single continuous metal strand weaving through the whole surface of stones for that particular façade -- a construction format specially developed for the project. The 200mm thick lightweight walls and 200mm thick stones ensure that there is a temperature difference

*Aerial view of Taj Resort and spa, Himalayas (Source : Edifice consultants)*




*Sections and elevations of a typical villa of the resort (Source : Edifice consultants)*

between the exteriors and interiors. The whole of the roof covered with 6mm thick black slate has been fixed to the metal framing below.

Installed solar (panels) technology generates hot water, which is then added back to the system. Whereas, construction of the villas along the contours resulted in less excavation and filling. The open corridors allow for the air to flow through the building and keep the space fresh and natural. An STP (Sewage Treatment Plants) system placed at the lower level provides the water required for the landscape, and no water is discharged away from the site. This also maintains the water table and ecosystem of the site.

The right proportion of natural stone and timber is used in the exterior to simulate a realistic feel and become one with nature. The metal columns make the structure look thin and merge with the trees in the backdrop.

***Lastly, what would be your advice to young architects in creating and energising one's design through material choices and resource management?***

The next decade bears the potential to define the growth of Indian infrastructure. However, development confines its own pros and cons. The growth of G.D.P. is accompanied by several positive social impacts, including improved access to food, education, employment opportunities as well as investments in real estate. On the contrary, we must acknowledge the cons of such policies, resulting in poverty alleviation and disposable incomes causing waste.

After careful analysis, our approach to design for need rather than excessive build — 'Building Less For More' is the way forward. Moving towards sustainable cities provides a new perspective on resource management— its causes and consequences. Preventing inconvenience and finding sustainable ways to allow organisational planning that does not sever neighbourhoods is a crucial aspect of urban redevelopment and resource management. Architects, designers, and industry leaders must adopt a forward-looking approach to designing and developing spaces that serve their purpose while minimising environmental impact.

Promoting education and awareness of sustainable practices among the larger community, from clients to end-users, can significantly drive this change forward. To ensure a better future for the coming generations, it is essential to make children aware that all resources on our planet are finite and must be used judiciously. We must educate young minds from primary schools by conducting interactive workshops and hands-on activities on critical environmental issues such as climate change, greenhouse gas emissions, ozone depletion, alternative energy sources, and the conservation of trees and wildlife. Incorporating environmental sciences into the school and professional curriculum, including S.T.E.M., Law, Commerce, Architecture, and Arts can help raise awareness and emphasize the direct impact of these issues on our daily lives.

*Interior views of Taj Resort and spa, Himalayas*
*(Source : Edifice consultants)*

***Interviewee's profile :***

***Ar. Ravi Sarangan***

*Ar. Ravi Sarangan is the co-founder and Director of Edifice Consultants Pvt Ltd. He oversees Edifices brand management, handles essential clients, and develops the creative design process. With more than three decades of a design-focused approach,design efficiency, design excellence and project delivery experience, Ravi is recognized for his leading expertise extending to the scope of master planning and urban design. He has worked on award-winning projects, including India's first Net-Positive Energy Campus and the highly energy-efficient Atal Akshaya Urja Bhawan. Recognized for his significant contribution towards evolving trends,Ravi's work at Edifice is driven towards creating a better and sustainable built environment.*
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