

# BUILDOTECH

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# ARCHITECTS UN-BORROWED VISION

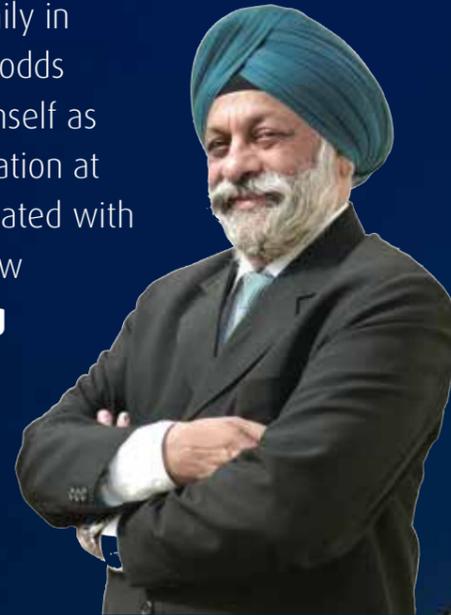
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Exclusive Interview with  
**Rajesh Chawla**  
Director, VEKA India

# Architecture for **Infrastructure**

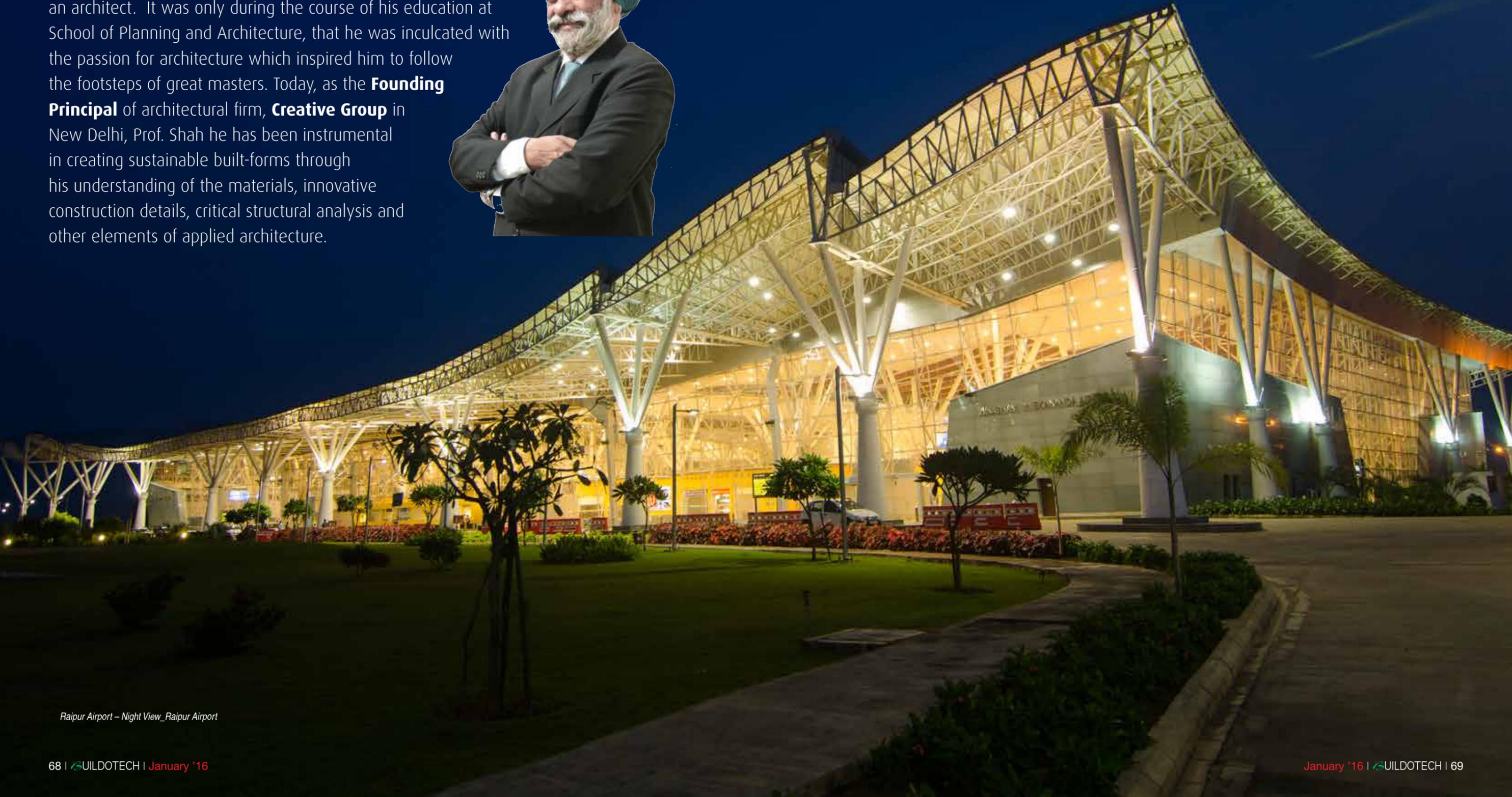
**Prof. Charanjit Shah** spent his childhood with his family in the refugee camps of Purana Qila in Delhi fighting the odds to rehabilitate themselves. He had never imagined himself as an architect. It was only during the course of his education at School of Planning and Architecture, that he was inculcated with the passion for architecture which inspired him to follow the footsteps of great masters. Today, as the **Founding Principal** of architectural firm, **Creative Group** in New Delhi, Prof. Shah he has been instrumental in creating sustainable built-forms through his understanding of the materials, innovative construction details, critical structural analysis and other elements of applied architecture.



**A**rchitecture as a profession has been constantly evolving ever since I have come to understand it. There is much more competition, especially with the need to match up to global standards. However, I think that we are still at an infant stage of infrastructure. We have yet to learn

to work in a holistic manner. All our departments are working in isolation, resulting in shifting of issues. We also lack a holistic design and planning approach. The overall road map of planning is not visible. Either the issues are not properly addressed or there is a lack of practical and actual feasibility studies. Perhaps, we believe more in global experts and

import professional expertise than complimenting Indian experts and work out our Indian Infrastructure. We try to imitate the West and follow the same blindly. Even though we have created the best of Metro and Road infrastructure, our cities are still choking and our roads are cramped. It is perhaps the beginning towards learning to create global facilities. ➤



Raipur Airport – Night View\_Raipur Airport

*Creative Group has won over eight consecutive national/global architectural design competitions including the global competition for the Chennai Airport. Our global associates were pleasantly surprised to see our professional work culture and how a small team of architects delivered global professional standards. In fact, small architectural firms can professionally deliver their services for larger projects provided they are fully equipped with a good team of sub consultants and a professional approach and ability to catch up global matrix of deliverables.*

In today's global knit context, is the architect to lead or to be led? All of us need to re look and penetrate into various aspects of challenges which the profession is facing. The overlapping roles, professional clashes between the architects and the engineers in terms of understanding and visualization need to be addressed. With my two sons, Ar. Gurpreet Shah, Principal Architect heading the design team and Prabhpreet Shah, Executive Director, Business Development and Project Management, our firm has strived to provide end to end single window consultancy for smart urban development.



Chennai airport

## Architectural Education

We need to redefine our methodology of architectural teaching. In today's context of single window delivery, the architectural education also needs to inculcate the discipline of finance as well as construction and project management along with physical and environmental aspects of the built-form. We need to give proper attention to various other elements of applied architecture other than the design studio to generate Leadership Qualities. This could be achieved if the education gears the future architect for providing professional timely delivery.

During my teaching at various schools of architecture such as the School of Planning and Architecture, New Delhi (SPA), Vastu Kala Academy (VKA) and Department of Architecture in Jamia Millia Islamia, it was observed that the students somehow neglected the education of various elements of applied architecture. Perhaps due to a stereotyped curriculum and methodology which is only limited to copy-paste of a few age-old books that are still being referred. Therefore, the curriculum of architectural education has to be at par with today's global context. If the Council of Architecture acts sensitively towards this issue, many knowledgeable authors could develop various books/literature on important subjects regularly so that the students are routinely updated.



Times Square – Aerial close up

## Infrastructure Design - Learning and experiences

India is fast developing and cities are growing in multi-layers. The parameters of architecture practice have grown many a folds in terms of urbanization, scale and growth. There are changing lifestyle, mode of transportation, and deficiency of urban land. The entire parameter of practice of architecture needs to be re-looked, adapting to the realities and necessities of the day for a pragmatic approach towards the design issues. Our firm, being a part of the audience as well as the performers, aims to satisfy both the compulsions. Such as in one of our institutional projects, GEMS School, Kochi - dubbed as the "first smart city school for the smart city of Kochi."

Working on mega infrastructure projects for the past so many years, we have learned that larger projects do demand a better interface between planning, management and administrating the same in a channelized manner. Inter-ministerial, inter departmental and inter professional connectivity in overall visualization of a project calls for command of professional leadership and skill to visualize, conceptualize and implement the project. For example,



Vadodra – Aerial view

during the execution of Chennai Airport mega project worth Rs.2015 crores for the Government of India, we learnt the hard way, how to face the bureaucratic, political and professional hurdles and get the project into a practical shape.

## Smart buildings, structures and cities

Chennai airport has been a very exciting and challenging experience as it entailed a dual team of foreign and Indian consultants. Being a government project we were conscious in creating of proper tender documents, condition of contracts, detailed specification and construction drawings that adhere to the norms as laid on by the central vigilance, central audits and CPWD. We had to innovate new methodologies of erection and construction and as

it was a running airport, some of the elements were fabricated off the site to enable smooth running of the airport. With the global exposure, during this project we learned to be proactive in our documentation, detailing and specification along with estimates in pre-tender stage itself. All the diversified works, approvals and working in the large government set-ups was a big challenge. Still we were able to complete the project of more than two million square foot covered area in a period of 40 months.

Raipur Airport is one of the Greenest Airports globally, also awarded the Best Airport of India, by Government of India It is a unique steel structure with Avian roofing which is a double curved, highly complex roof, designed and executed, for the first time, by our Indian team. It has the best of Indian ethnic art work in the

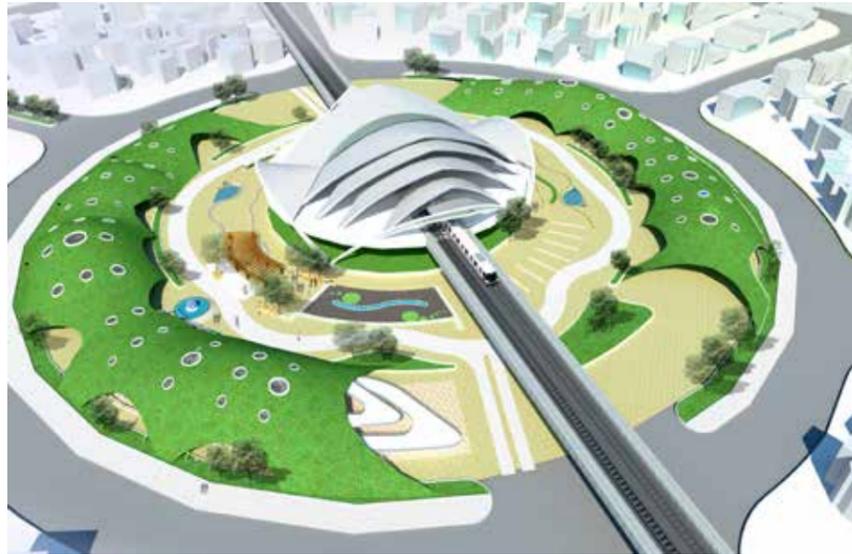


Raipur Airport – Bastar art



Raipur Airport – Landscaped court with bastar art

*Chennai Airport is the First Intermodal Hub of India connecting four modes of transport i.e. air, surface, railway and metro. We provided last mile connectivity to four modes of transportation without any traffic interferences, realizing that only under the architect's umbrella, the city can be made into an example of tactical urbanism. All the transit modes are physically connected with an elevated steel glass tube which has 28 walkalators thus conforming to the idea of seamless connectivity.*



Koba Circle -Station Development

central court – “Bastar Art” providing a local flavor to this global facility. It also consists of a hard green car park, a lake to store rain water, solar voltaic panels, and other Intelligent Building Management Systems, in place to optimize the use of energy and water.

In 2013, we were shortlisted by Tata Steel Ltd. to propose the redevelopment plan of Jamshedpur Command Area (JCA). The Master Planning of Jamshedpur City for Vision 2057 is close to my heart because of the various issues that needed to be addressed for a city that exports 10 million tons of steel every year. Our

concept behind the planning of this Steel City was ‘Town within a park within a city’. The planning principles address issues such as, overcrowding, inadequate housing, poor sanitation and other social, infrastructural and ecological ills. The basic Town within a Park model multiplies and creates several parkway systems that intertwine neighbourhoods. We placed the industry aside from the centre, for a town where community is at the core.

MEGA (Metro Express Link for Gandhinagar and Ahmedabad) invited us to do the feasibility report for transit oriented development of Koba Circle Metro Station. The aim was to amalgamate affordability and sustainability into the basic planning and be an example of public-private partnership (PPP). Provided with a vast area of 283 acres, we had the opportunity to re-evaluate the physical planning around the Metro link to a diameter of 1.2 km and designed a closely connected neighbourhood in the realms of nature consisting of retail outlets, exhibition spaces, art museums, convention centres and residential development around the Metro Terminal, creating a cultural and recreational hub which is pedestrian friendly as well as cyclable.

Another interesting, or rather unconventional project was a mall that was designed for the upcoming smart city of Naya Raipur. Times Square Mall is designed keeping all the passive strategies of sustainability in mind. The helical form of the building has its highest point on the South-West, thus avoiding the harsh sun. We have used steel jaali as not just a decorative element but also as a double skin which creates wind tunnels and passes air flow to the central atrium which is covered with a steel pergola. Stepped landscaped terraces are also provided as recreational spaces. Because of such principles, the mall breathes without air-conditioning and thus the mall is an affordable space for a city like Raipur which is still developing.

### The way forward

It is architect's attitude towards the deliverable which slowly and gradually grows into an aptitude. The endeavor should be associated creations in a most-lively and eco-friendly manner. A built form should not be treated as mass of brick and concrete, but as something that needs to breathe in the natural environment. Every project is a learning and on-going experience. I take the progressive chart of career as a circle. There is no low or high graph. The progressive performance keeps the wheel moving and generates energy to learn more from the vast ocean of knowledge.



Goa Airport

Being a promoter of sustainable and smart architecture, architect Prof. Charanjit Shah, a city planner, educationist author and an academician with a practice of over four decades has worked towards net zero and self-sustainable, energy-efficient living structures.

His firm, Creative Group has worked on globally acclaimed green airports in Chennai, Raipur Goa and Vadodara, Master Plan of Jamshedpur City 2057 and Intermodal Hubs in Chennai and Ahmedabad amongst other notable infrastructure projects.

Prof. Shah abides by the philosophy that ‘a built mass should not be treated as a dead mass of brick and concrete but as a living organism that breathes with nature’ inculcating the same in designs ranging from urban planning and mass transit to commercial, institutional and residential complexes. It has been his endeavour to take forward the approach of ‘smart and sustainable development’ globally and motivate tradition through modernity in his designs.

Jamshedpur 2057\_ TOWN within the PARK within the CITY



Naya Raipur Railway Station – CBD- FRONT VIEW

