

## BOOK REVIEW

**Architecture: Past, Present and Future, A.K. Jain, 2022, Delta Book World, New Delhi, ISBN 978-81-955519-2-7, Rs. 3500/-, p. xiii + 357**

Architecture is a unique blend of technical, artistic, economic and socio-cultural developments. Spanning both art and science, it is closely linked with urbanism, ecology, micro-climate, environment, natural resources, water, energy and public health. According to RIBA Gold Medallist and Pritzker Award winner B. V. Doshi *"we cannot look at architecture as merely a product because it is not what one calls a passive space, form or structure. Architecture is an extension of our body. It's not outside of me, it is a part of me and we live within it. When you think it is part of yourself then the questions are the food you eat, the life you live, the people you meet and the world in which we live. It is an understanding of culture, aesthetics, climate and space. That's how I understood Corbusier. He would talk about behaviour, attitudes and about climate. He spoke about the relationship between people and the building, about the space. And I think because of that my whole understanding of architecture is different"*.

The book 'Architecture: Past, Present and Future' by A.K. Jain provides a comprehensive understanding of the evolution and concepts of architecture, which include green building, climatology, building resources, parametric and morphotectonics and infrastructure services.

The author starts with the first chapter on the elements of architecture. According to him there are three kinds of people – visual, auditory and kinaesthetic. Beautiful experience is their fundamental emotion and a cradle of design. Design elements are the visual units of aesthetics. These include the form, functions, materials, envelop, façade, openings, size, scale, proportion, contrast, hierarchy, emphasis, etc. The architects not only have to deal with the hard technical aspects but also with the soft, innovative concepts by lateral thinking.

As Le Corbusier looked at the buildings beyond their practical physical form and utility: *"You employ stone, wood and concrete, and with these materials you build houses and palaces. That is construction. Ingenuity is at work. My house is practical. I thank you, as I might thank railway engineers, or the telephone service. You have not touched my heart. But suddenly you touch my heart, you do me good, I am happy, and I say: 'This is beautiful.' That is architecture. Art enters in"*.

The author in the second chapter traces the evolution of architecture and the manifestation of geographic, economic, political, cultural, social, technology and building resources. As such, architecture bears the stamp of human endeavours and thoughts.

Moving further, in the next chapter the author states that the cities and buildings keep alive the memories. They are not just the material remains of contemporary society, but the living things of the people, their economy, knowledge, arts, faiths, morals and customs. They provide lessons how the builders, architects and the society addressed the issues of dichotomy between urban and rural, and between the natural and built form. The author outlines the evolution of the classical architecture and the principles of design, proportions, orders and structural systems. The classical styles were followed by the Renaissance, Neo-Classicism, Modern and Post-modern, and now by the new parametric style. It depicts complex forms by digital design, animation, simulation, tectonic logics, seamless fluidity and modulation. Parametricism is the new wave of spatial design. The parametric design is inspired by the quasi-scientific fields of plant and animal morphology, a new 'organicity'. The computer has emerged as a tool for simulating the generation of biological forms and morphological simulations.

The fifth chapter deals with the pandemic, pollution and morphotectonic strategies. Covid-19 has caused massive disruption to the economy and the livelihoods, especially of those living in the slums and working in informal sector as domestic servants, labour, vendors, and construction workers. Their income sources have vanished. Most of them live in the slums which lack space, sun, air, clean water and sanitation. The Covid pandemic has exposed them to the epidemiological, transitional, and control measures vulnerabilities. The chapter underlines the need to adopt a bottom-up approach rather than top-down approach.

In continuity, the next chapter focuses upon the sustainable habitats and green buildings, and their relationship with natural environment and societies.

In the next chapter, the author explains the process of design with climate. According to him, the basic purpose of architecture is to design a building where changing phenomenon of heat, temperature, radiation, sunlight, humidity, rain precipitation, wind and diseases can be mitigated.

In the eighth chapter, the author dwells upon the subject of housing. According to him shelter is a direct manifestation of poverty and lack of it is a major cause of inequalities. In 2012, in India there was a housing shortage of 18.78 million units, of which 96 percent pertained to Economically Weaker Sections (EWS) and Low-Income Groups (LIG). Besides various housing programmes undertaken during last 75 years of Independence, the author provides a detailed study of the Pradhan Mantri Awas Yojana (PMAY), launched in 2015. This is

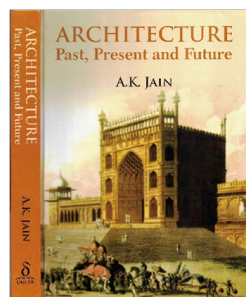
one of the largest housing programmes ever undertaken. The Global Housing Technology Challenge- India (GHTC) has mainstreamed new technologies for affordable housing.

The author further moves to the last chapter of the book, 'Sustainable Infrastructure Services'. This covers the Energy Systems, Plumbing, Water Supply, Sewage, Sanitation and Drainage, Environmental Services, Pollution Control, Liquid and Solid Waste Disposal, Fire Safety, Security Systems, Telecommunication, Wi-Fi, CCTV, etc.

According to the author, the pillar of sustainable architecture is to think of the buildings, services, energy, water and materials in a closed circular loop. It involves an eco-system approach towards design, materials and construction. Adoption of circular models for the building design and construction involves formulating mandatory recycling guidelines, valuing material flows, their emissions and footprint, environmental impact and lifetime scenarios. The basic approach of circular construction is zero emissions and wastes.

The author concludes that architecture manifests a continual dialectic between the building and nature, the inside and outside and construction and resources. The fascination of design lies in the interplay between the infinite ideas and resources, which include light, sun, air, rain, climate, nature, building materials, budget and time. The purpose of the design is to give an identity to the space. There has always been a search for emotional and human relationship with the space and the built environment. This is not just physical, but also psychological and emotional, beyond the functional, tangible and material aspects of design. As the human emotions are amorphous, an architect has to search for the relationship between consciousness and space in order to create emotionally responsive space.

Written in a simple language and with more than 300 illustrations, the book provides an interesting and wide panorama of the past, present and future. The book by its practical examples and graphics is engaging.



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