

Matrix of Civilisation

Civilisation is Closely connected with civil engineering as the word itself shows. Food, clothing and shelter has been the three basic needs of human being which need to be fulfilled before any culture can set in. Hence agriculture and civil engineering have been the first endeavours of man in search of ways to overcome death and extinction. The palaeolithic man, our ancestor, used to live in caves to protect himself from ravages of nature and nature itself gave him ideas to create his own shelter in course of time. The cave showed him necessity of walls, roof, doors and windows, the various elements of a shelter. The trees showed him the use of simply supported as well as cantilever beams and columns. The birds nests indicated the need to have outer & inner apartments in the house. The anthill probably stirred his imagination to build pyramidal structures. The beehives had the germ of great palaces built with its various compartments and special treatment for queen bee.

Though Civil Engineering with special emphasis on structural engineering carries a special meaning for development of civilisation all over the world with its Roman aqueducts, Egyptian pyramids, Babylonian Ziggurat, Mayan palaces, Gothic churches, Mughal tombs and Ajanta-Ellora caves, it is Architecture which is called Matrix of civilisation. Even the scriptures call God as the Architect of the world and in the 50th year of independence of India allegorically some claim Pandit Jawaharlal Nehru to be the Architect of Modern India.

Essentially the linguistic, philosophical religious and allegorical reference to architecture as matrix of civilisation is due to the fact that the architect uses his imagination to conceive a three dimensional object which would be used as structures for various uses and in the process deals with space and time – the latitude and longitude of creation. While conceiving a building, an architect brings his mental faculties to bear upon his knowledge of engineering, culture, behaviour of individuals economics, and

uses his training of aesthetical space design to create a structure functional, pleasing, lasting, economical and structurally sound. Once this is done then engineering steps in to fulfill the actual implementation. Hence architecture is closer to art, but differs in the dimensions of space. Art usually deals *with* two dimensions like paintings and if it deals with three dimensions like in sculpture it does not create space for human habitation. So one can safely say that architecture combines both art, engineering and much more.

Great Architecture is both universal and individual. The universality comes because it is expressive of its time. Individuality of a person, his unique combination of faith, honesty and devotion however is also shown simultaneously in a Tajmahal, a St. Peters Church or a Khajuraho Temple. Faith or Religions of man have been largely responsible for development of architecture, due to their congregational needs. An individual's house or even a palace does not inspire engineering or architectural feats. Man has always wondered about the creation including himself and naturally about the creator. Hence imagination has been largely used in Indian as well as Semitic religions to describe the magic called the seen universe and the unseen creator.

Since the times of Rigveda, Hindus have conceived in meditation various theories-some through experience some through speculation. The offsprings Buddhism and Jainism also inspired various interpretations, all three giving birth to great architecture of Mohenjadarro, Harappa, Ajanta, Ellora, Dilwara and temples of South, Orissa, Khajuraho and the list is endless. The congregational needs of the Semitics : the Jews, Christians and Muslims have inspired Churches, Mosques, Tombs of breathtaking beauty & size. What must be the mental make up of a Michael Angelo, Leonardo de Vinci, Sir Christopher Wren and other known and unknown architects who create such lasting monuments of contemporary civilisation.

Modern age has a new Religion called Science and Technology which has united whole

human race into one unit inspiring architecture which is more universal than that of any other age in the sense that it is everywhere on this globe due to the invention of materials like reinforced cement concrete, steel, plastics, glass etc. and the structure systems which work with them. Scientific or Industrial Civilisation calls for harmony of various religions & cultures. Modern Architecture no more represents a narrow sectarian outlook but is all encompassing in its use of materials, styles, features, details, colours, finishes. and spatial compositions.

The great Swami Vivekananda after his five year excursion of India and almost same

in United States and Europe has shown us how Architecture could be utilised to express the aspirations of modern man in his masterpiece the temple of Ramakrishna at Belur Math, the matrix of modern civilisation, with its harmony of various styles, materials, spatial compositions, detailing and a feeling of unity in variety.

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