**EMERGING PARADIGM - ARCHITECTURE ROOTED IN SUSTAINABILITY PRINCIPLES**

‘NETWORK SOCIETY’ CAN USHER IN A CULTURE OF ECO-SOCIAL RESPONSIBILITY

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**Abstract**

***Profession of architecture is facing a strange paradox for the last several decades… even though architects create significant physical entities for the people by using land and material resources; its basis is rooted in abstract ideas and fads. This approach has led the profession to become unmindful of basic responsibilities like ensuring environmental sustainability.***

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***Basic principles and values which ensured survival of the human society were always considered inviolate, and all physical development was also subject to these principles. However, presently, the society seems to be committed to rapacious development without caring for the consequences. Architectural education and profession is also following this trend.***

***Traditional approach to development played an integral part in ensuring sustainability. Indian civilization serves as the beacon in this respect… unlike other destroyed / destabilized civilizations, India has stood firm without major eco-social upheavals.***

***‘Network Society’ can achieve diverse objectives… it can decide to go down the path of irresponsible development, or it can equally effectively make up its mind to become responsible and accountable; for ensuring human survival. It can use modern technology to establish necessary links between historicity and modernity, so that those values that ensured sustainability are re-learnt. It can help us in altering the cultural context without compromising the unalterable principles related to our continued existence. It can show us directions for a new framework to balance modernity and sustainability. Paradoxically, the age of virtual reality is likely to teach us to ‘get real’, based on new paradigms rooted in environmental sustainability.***

**Keywords:**Values, Rooted, Principles, Accountability, Sustainability

**OVERVIEW OF CHANGING PARADIGMS AFFECTING ARCHITECTURAL PROFESSION**

Historically, formal architectural profession was in the form of master-builder tradition. Families, guilds and castes with suitably developed expertise were entrusted with creation of important buildings. On the other hand, there was no need of formally trained architects to build every-day housing. People often built the houses for themselves, sometimes solicited the help of craftsmen in the community.

There was no dichotomy between the architect and the contractor as it exists today. Further, the master-builders were expert craftsmen; and there was no separation between architecture and craftsmanship either. Carvings, embellishments etc were integral to the architectural form, incorporated into the basic structural materials like stone, timber or even mud, and not applied afterwards on a structural frame or walling.

In India, a set of rules ‘Vaastu Shastra’ was developed; which was supposed to be based on climatic, social, ecological and cosmic influences. Dozens of treatises applicable for different parts of the country are still available for study. This ‘*Shastra*’ still has a considerable influence on the people, and architects are being forced to study and follow the same.

In the Islamic architecture, rules of Vastu-Shastra were not followed, but still traditions pertaining to master-builders, craftsmanship etc were largely continued. A major paradigm shift took place in this regard only after the influence of the Europeans.

In Europe such matters pertaining to art and architecture were in a constant flux. Greco-Roman traditions were followed by the Gothic, followed by the Renaissance to bring back the ‘classical’ era, which in turn was rejected by the ‘Modern’ movement. Modern Movement was itself rejected by the post modern, followed by de-constructivist and other stylistic approaches, fads and fashions one after another.

If the European process was summarized, it would have to be concluded that western theories were essentially built upon rejection and ruin of the preceding practices. There was no firm footing like the ‘Vaastu Shastra’ on which any of these styles were founded.

Formal schools of architecture were established by the Europeans in the colonies like India. In these schools Greco-Roman and Gothic were portrayed as the true traditions of Architecture. However as a matter of natural progress and evolution, we were / are taught that there was a complete break and a rebellion from these ‘traditions’ which were quickly followed by the ‘modern’ phase. Work of a few modern ‘Masters’ in Europe and America then become the foundations and touchstone of architectural progress in this scheme of things.

In addition to the imposition of the European model of architectural training, the political masters in India showed true slave-like mindset to invite such people to guide the architectural progress of India, who were too arrogant and shallow to understand the traditions and culture in India; or even the economic and ecological situation here.

Together, these developments left the architectural situation in a rather degenerate state, where you can either get vulgar museum-piece in each plot, constantly changing, fashion statement or ugly utilitarian buildings where-ever external embellishments are not possible.

**CURRENT ECOLOGICAL CRISIS IS A DIRECT RESULT OF OUR ARCHITECTURAL AND OTHER DEVELOPMENT PRACTISES**

If the current architectural scenario is tragedy on the aesthetic front, it is a bigger disaster on the ecological front. India’s development traditions ensured unbroken continuation of the Indian civilizations for several thousand years. In this tradition, architecture like temples and tombs were built to last for centuries and on the other hand all the other structures were built in such a way that they came from the soil and went back to it without causing permanent damage and pollution.

There was a concept relating to use of suitable materials for construction and development. Use of *‘Sur Sampatti’*’ was generally promoted over *‘Asur Sampatti’* which was considered inauspicious as per Vastu principles. Sur Sampatti was bio-mass based or comprised of materials like soil and readily available stones etc which can be found on the surface of the earth. Bio-mass based materials (Timber, Bamboo) have only a positive effect on the environment, during the process of their creation, during their use in the buildings, and even after they are discarded. Other materials like soil and stone, since they are already on the surface of the earth are already brought to a stabilized stage by Nature, and therefore do not cause pollution. On the other hand, *Asur Sampatti* comprising of mined materials like minerals and fossil fuels is naturally unstable, corrosion prone and polluting.

Under influence of the shallow treatment of architectural teaching, even such simple and fundamental aspects of pertaining to construction and development are given a go-by in the current state of affairs. It should have been logical and obvious that such traditions which ensured our very survival should be an essential part of our curriculum and practice. The current approach has already resulted in widespread destruction and the human race as a whole is staring at grave dangers due to this. All the aesthetic and artistic pursuit in architecture would come to a naught if our very survival is challenged because of thoughtless development.

**CURRENT APPROACH TO ‘BASIC DESIGN’**

Architecture is primarily intended to provide practical solutions for the need of ‘Shelter’, mainly for anthropocentric activities. This ‘shelter’ is always a ‘Real’ entity having qualities which satisfy varied types of human physical and psychological needs. This being the requirement, it should follow that the quest for providing architectural solutions should start with study of situations which satisfy the physical and psychological human needs in the best possible manner.

But the scheme of things pertaining to architectural education creates a perplexing paradox… the study of architecture starts with unreal, abstract and virtual situations rather than with a study of those available situations and case studies which satisfy our real (physical or psychological) needs.

Perusal of the first semester ‘Basic Design’ course (Annexure 1) shows that ‘Basic Design’ is not founded on any worthwhile fundamentals. In this regard I am reproducing here the course syllabus prescribed by the RTMNU (Nagpur) University, which is generally consistent with syllabus followed in most of the other universities as per the Council of Architecture norms.

When the Europeans started architectural schools in the colonies like India, they wanted to produce draftsmen to work for the European architects. In this training there was a major emphasis on drawing and drafting techniques and presentation, rather than on design itself. This emphasis continues to this day, as seen from the syllabus reproduced above; apart from the fact that no fundamental basis is established by way of learning ‘basic design’. Aesthetics of geometry, colour, texture, scale etc as the sole basis, without any deeper purpose, is incomplete and un-holistic. Transition of these simplistic studies into built form fails to create refined and responsible design. In aesthetic evaluation also, like in other aspects of our social life; form, rather than content, takes precedence. Learning from Nature, even for the sake of artistic pursuit (let alone ecological principles) is largely avoided in this scheme of things.

**LEARNING FROM NATURE**

There are innumerable situations in Nature which can provide guidelines for ‘basic design’. Our responses to experiences in a dense jungle, on rolling grassland, on a mountainside or on a riverbank are completely different; and similarly under the canopy of a tree or out in the scorchingSun. Can we identify the desirable aspects from these natural situations and adopt them in our architecture and town planning?

Most of our learning takes place entirely in the closed class-rooms. All of us beed to visit the ‘outdoors’ to enliven ourselves. Can we create such refreshing qualities in our architecture? Can learning in the ‘field’ teach us more than what can be taught in the class rooms?

Nature, as we find it, is incredibly complex. For better understanding ‘science’ tends to break it down in to simple terms for human application. Simplification makes any study easier and this method is very useful, but this kind of breaking down without being able to put things together again is proving to be a dangerous pursuit. Simplistic processes are more likely to be linear, ending in damage and destruction, while natural processes are always cyclical, eventually causing overall benefit.

Fragmentation without understanding the interrelationship and complexity results into destruction. For example, medical science can study the human body by studying each body part independently, but unless all the parts are put together in a complex way, the human body would not work.

The complexity regarding our existence was instinctively understood and acknowledged by the traditional societies. Indian philosophy went one step further and put the highest emphasis on the *‘Dharma’* of carrying out only such actions which benefit Vyashti (Individual), Samashti (Society), Srushti (Nature) and Parameshti (Divinity) simultaneously. In contrast to this, the ‘scientific’ western way always prescribes fragmentation (and thereby destruction) in every aspect of life. Adoption of this western way by all societies, including in India, is visibly causing great damage to the mother earth and to the human race itself.

**LEARNING FROM THE TRADITIONS AND HERITAGE**

Just as any study of Nature is absent in the architectural syllabus, learning from traditions is also a ‘no-go’ area. History of architecture is learnt, but that learning is for the sake of information of the exotic past, rather than for deriving something of value for the present. Even the study of ‘Indian’ Historical monuments in India is done in as remote a way, as say, study of pyramids in Egypt; with little or no possibility of application to the present.

**Among the most valuable aspects to learn from the Heritage structures or from traditional biomass based buildings is that they come from the soil and go back to it without spoiling it, thereby providing the basis for our centuries-long sustainability. However this aspect is perhaps deliberately missed in the architectural syllabus, because pursuing such agenda would be against the current development narrative and against the powerful vested interests which derive maximum benefit from the current exploitative discourse.**

**ESTABLISHING AN APPROPRIATE PARADIGM THROUGH THE “NETWORK SOCIETY”**

Given the present situation, a paradigm shift is indeed the need of the hour. It is true that cultural changes brought about by technology cannot, by itself, bring any paradigm shift, but the technology behind the creation of ‘network society’ certainly has the capacity to start the necessary shift in the right direction.

Human intellect is blossoming like never before, but is it blossoming in the right direction? Technology has made things possible which might have been inconceivable a few decades back. Compared to a few decades back, each one of us has become a super-human, due to technology and gadgets. However at the same time we are also becoming less humane, less considerate of Nature, and less considerate of the society as a whole. Materially, we are the most comfortable generation, till today, on the earth. However we are not the most joyful, or loving, or compassionate, or blessed generation ever on the planet; despite all the advantages.

And this decrease in human values is caused mainly by in-built flaws of our educational system; while educational system is itself a victim of robot creation agenda driven by the uncontrolled neo-colonial development apparatus. Modern science is a slave of such technology which constantly seeks to turn itself into profit making enterprise. In this almost compulsive state of action at every stage, Science has moved from an exploratory process to an exploitative process. It has become a curse when it could have become a boon.

It needs to be appreciated that it is this inhuman agenda which creates great strife and negativity in the society, despite the super-human technological advances. Apart from commonly acknowledged forms of addiction like drug abuse and alcoholism, ‘Network Society’ is creating its own increasing circle of addicts from the very boon that the technology provides; and this addiction is also not limited to undesirable content on the Internet. Most people have developed compulsive habits and are caught up in the Web of WhatsAPP and WhatsNOTapp. Technology developed by the neo-colonial machine (of which we are inseparable part) also looks at the ‘human resource’ (meaning us) for making more money and would strive to develop newer mechanism to keep everyone hooked.

**The key to making the ‘Network Society’ work for improving the overall situation is therefore to make it profitable for everyone to do the right things.** But can we make this paradigm shift?

We would do well to remember how the very first extinction took place on the earth. This extinction was also a result of great technological advancement (created by Nature, and unsurpassed thus far by a long way still); and this new technology was in the form of photosynthesis for creation of food. However photosynthesis created its own ‘pollution’ in the form of oxygen, and most life forms which could not stand the existence of oxygen died out. There was no way that this extinction could be avoided by those life forms at that time.

Time has arrived to prove to ourselves that humans can avoid the fate of those early life forms by using their intelligence to create a Network to fight against the various forms of pollution that are being unleashed into the environment today. Technology is available for such networking; but can all the humanity come together to ensure its survival? There is this question mark about whether the human society is really smart enough to avoid the impending catastrophe. Therefore the first thing that the Network Society can do is to bring like-minded people together, for creating a critical mass to bring in effect the required paradigm shift.

Next, the Network Society can use the considerable technological advances at its disposal for creating a framework that can ensure survival and well-being of the human society and then campaign for mainstreaming of this new framework or paradigm.

Lastly, the technological know-how can be used to analyze things form Nature and from our sustainable / traditional practices to firmly establish the parameters which can be used to become more eco-friendly. This needs to be done in all our technological institutions, and especially in the architecture colleges.

The Network Society can ensure that even the paradigm shifts in human development discourse can be made cyclical rather than becoming linear and self-destructing. Thus far, the paradigm shifts in human societies can be identified in the following phases:

* Tribal and pastoralists who were one with Nature -
* Agricultural Society created monoculture and practice of keeping land fallow for long periods
* Industrial society engaged in unbridled exploitation of natural and human resources and moved away from Nature
* Network Society… Made Super-human by technology, seems headed for doom; but it can decide to move towards ensuring simultaneous good of all – Vyashti, Samashti, Srushti, and Parmeshti by internalizing the necessary values.
* ‘Network Society’ needs to usher in this paradigm change by using all available resources to turn the full circle and become a ‘Holistic Society’ once again!!

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Lectures (on YouTube) by Michel Danino

Lectures (on YouTube) by ‘Sadhguru’ Jaggi Vasudev

Lectures by ‘Guruji’ Ravindra Sharma of Kala Aashram, Adilabad (Audio recordings)

**Annexure 1**

**References**

Series of books by various authors (Michel Danino, Irfan Habib, D.D Kosambi, Romila Thapar, Sanjeev Sanyal, John Heywood and others on history and evolution of Civilizations). ‘Jal Thal Mal’ by Sapan Joshi, published by the Gandhi Peace Foundation, New Delhi. History of Architecture and Town Planning text books by various authors (Sir Bannister Fletcher, Percy Brown, Lewis Mumford, Satish Grover). Nagpur University (RTMNU) Architecture course syllabus

**First Semester B.Arch. : Basic Design & Visual Arts Syllabus prescribed by RTMNU**

**Objective**- Developing skills in manual presentation techniques, use of various media of presentation,Principles of 2-D & 3-D compositions, Principles of Design.

**Theory of Basic Design**- The study of this subject is aimed to understand the Visual & aesthetic qualities of Artand relating these to Architectural Design situation. This subject forms the direct input to Design as ‘Basic Design’ is the foundation of all Professional courses which deals directly or indirectly with Aesthetic.

**Visual Art**- Visual Art is aimed at providing knowledge and understanding of various visual arts and itsimportance. It further aims at developing the freehand drawing and rendering skills in different medium and using it as tool of expressing ideas visually.

**Unit-I:** Brief historical review of development of fine arts (visual and performing arts.) and Interdependency of visual arts, architecture, painting and sculpture

**Unit-II:** Introduction to basic elements of design–point, line, plane, form

**Unit-III:** Principles of Design and its role in expression (architectural expression) Introduction to principles of organization/composition. Repetition, Variety, Radiation, Rhythm, Gradation, Emphasis & Subordination, Proportion, Harmony, Balance

**Unit-IV:** Study of Visual Properties of 2-Dimensional forms both geometrical and non-geometrical surfaces and visual textures, optical illusion etc.

**Unit-V:** Free hand line sketching and drawing of natural and manmade. Study of shades and shadows, Sketching of Historic or new built up structures of Architectural importance using different mediums.

**Unit-VI:** Study of classification of colours with different hues, values, and shades. Colour wheel and colour composition, properties of colour.

**Sessional Work- Plates, Sketches and models to understand basic design principles, elements and their expressive qualities**

Creative Exercises of 2d to 3d compositions / Exercise related to positive and negative spaces / Product Design