DESIGN EDUCATION FOR THE 21ST CENTURY:
WAYS OF THINKING ABOUT LEARNING
Interior Design is gaining a professional status and recognised so by society at large in India. A shift in the mindset of people, who once thought of Interior Design as a ‘do it yourself’ with some help from a contractor, is one of the primary reasons.

However to keep pace with this change, training of Interior Designers to make them good professionals became imperative. In India, we have had our set of problems. It would be unnecessary to go through all the details of the same, however, I would like to mention a few. Many self-styled educationists without understanding the seriousness of the profession conducted half year, one-year programs mostly with the view of making profit than education. I am told in some Universities, in some States in India, an Interior Design Curriculum is unrecognised. As a result, degree/diploma courses of good standing are not offered in these states resulting in quack organisations entering.

With this background Institute of Indian Interior Designers (IIID) thought of actively participating in Interior Design Education, well aware of the fact that IIID was not an Educational Institute and could not offer any certification of any sort. Education was to be one of the Missions. And what does this ‘mission’ dream of? Simply stated ‘Quality Education in Interior Design’ and how do we achieve it, by being meaningful ‘Facilitators’.

Hence IIID with a view to facilitate, has gone with full vigour into an understanding with desirous Institutes by affiliating or collaborating with them to achieve these aims of our mission. In the previous year, we have affiliated/collaborated with more than two score Institutes which only stands as a benchmark of confidence IIID has with educationists. Here I would also like to say that IIID knows that the task is uphill and daunting and ‘miles and miles to go before we can sleep’ or frankly ever sleep. However, this mission can be achieved and continue if our members and educationists in Interior Design come forward and be part of the various IIID Education Programs. It is, as we know achievable, with maximum participation from within the profession.

We all know that, notwithstanding the fact that interior design is partly technical, a great part of its education falls in the realm of an ‘experiential’ knowledge. It is here largely in this part, we found, that many Institutes lacked. Hence IIID in its mission thought of addressing same. One of the ways was by conducting Faculty Training Workshops for faculty of Affiliated/Collaborated Institutes. The first such workshop will be conducted in the Mumbai Head Office on 20, 21, 22 October 2016 with the help of expert educationists and practitioners. Also, IIID is charting out a timetable of sending expert guest lecturers to Affiliated/Collaborated Institutes to conduct programs with students.

A lot has been written on education in general as well as interior design education. However, I have always believed that writing paragraphs would lead us nowhere unless we participate in education, especially in, as said before, in the ‘experiential’ knowledge sharing. Here it becomes personal, intuitive and if I may say spiritual and hence words cannot convey much. I must here like to say that we found many eager to be part of our mission. Mrs. Krishna Shastri – SID Ahmedabad, Prof. Jayashree Deshpande, our very own Mr. Yeshwant Ramamurthy and a few more have become natural partners in our endeavour.

Good education will make good professionals who will only hold the beacon of the profession of interior design high.

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There are two ways of looking at design. One is to say that ‘I am designing a temple’ and the other is to say that ‘I am creating an abode for God’. The first follows the rational approach of confining the mind within the realm of the reason-bound intellect. Here the chief emphasis is on the physical – the wall, floor and roof. It belongs to the same world as that of construction, skill, engineering, information and facts. The second follows the creative approach of transcending the mind to the realm of the conscience. Here the chief emphasis is on the truth of the space within the structure. This belongs to the same world as that of the soul, poetry, art and truth. In our modern day education, the emphasis is more towards the first approach. Traditional Indian education, on the other hand, always aligned itself with the second approach. To be in a position to meaningfully explore new dimensions in design education for India, it is crucial to bring together these two worlds in the correct co-relation.

In this journey between two worlds, the two main protagonists are the student and the teacher/the design school. The student is the hero setting out on this journey, and the teacher plays the role of the bridge empowering the student to connect both worlds effectively.

On joining a design school, the student stands at the threshold of embarking on this adventurous voyage of discovery. A discovery of the self, through the medium of design – his chosen vocation. With a better understanding of his inner truth, he is more effectively equipped to exercise his power of choice and take on the challenging journey. With this empowerment, he learns to creatively and confidently harness his imaginative powers, his latent skills and his intellectual abilities to serve as a responsible designer of dwellings worthy of his fellow men. However, modern day education with its preoccupation with the intellectual mind very rarely provides a nurturing environment to accommodate reflective practices of the self.

In enacting his role as a bridge, the teacher too is on a voyage of self-discovery. His ability to effectively connect with the students and the subject depends on his capacity for self-growth and his knowledge of the two worlds. This knowledge will empower him to serve as a friend and a guide and adopt a training method of suggesting and inviting and not one of commanding, imposing or interfering. The assignments so designed would give practical opportunities to encourage self-discovery in the student, which leads to self-knowledge which eventually leads to self-mastery. However, in these days of ignorance of our higher nature, there is a limited understanding of the two worlds.

Over the years, in my journey as an educationist, I have explored and experimented with various classwork methods and have developed a series of workshop modules to bring about this much essential link between the two worlds. ‘Dream, Draw & Design’ is a 5 to 12 day studio guiding the 1st year students through a journey of discovery from conception to manifestation. I believe that each student possesses a voice deep within himself which makes him special and unique. To help each one discover, awaken and unleash the
untapped potential of this inner voice, the students begin the day by writing a diary for a minimum of thirty minutes. Diary writing, conducted in the correct manner, strengthens the reflective capacities of the student and brings him more in tune with his consciousness. It is in this zone where original thoughts and ideas lie. This awakened dream will now need to find its expression in the physical plane. Simultaneous with this awakening, each student’s basic skill of the pencil is groomed. Empowered in this manner, he is now ready to tap the imagined world and express it on paper. Then comes the next stage of aligning the dream and the physical manifestation to the universal principles of aesthetics. This aspect is addressed by looking at vernacular architecture. The student is made aware about how our ancestral designers approached and resolved design issues by bringing in harmony, scale, proportion, composition, colour and other subtle design elements and principles in response to the environment.

Another 12-day module that I conduct is titled ‘Stories within a Story’. Traditional Indian Architecture continues to evoke emotions, sentiments and imaginative responses, in much the same manner, as our engrossing and enduring narratives. The aim of this module is to understand this wisdom of traditional place-making through a more comprehensible art of storytelling. The medium of story possesses the potential to effectively awaken the student’s intuitive mind to the narrative treasures of our traditional architecture.

To illustrate how storytelling aspects work in our earlier built traditions, we can take the City Palace at Udaipur as an example. The City Palace is a repository of Mewari traditions and an icon for the city of Udaipur. Besides the private chambers and other spaces essential for any well planned royal palace, it also includes various assembly halls and adjoining courtyards built at different periods to serve both as formal durbars and for pastimes and entertainment, including music, dance and drama. These individual spaces, from the smallest chamber to the largest courtyard, have distinctive shapes and characterising detail with fairy-tale like names such as Kaanch Ki Burj (the tower of glass crystal), Pritam Niwas (abode of the beloved), Chini Gokda (the Chinese window), Rai Aangan (the royal courtyard), Mor Chowk (courtyard of peacocks), Chandra Mahal (the moon palace) and Moti Mahal (the pearl palace). These rooms and building parts are linked in a meandering multilevel sequence by narrow stairs and corridors, taking the observer through a measured set of varied experiences. Just as in our traditional narratives, the Mahabharat...
Ajit Rao started his career working with renowned architect B V Doshi in Ahmedabad in 1983. Ajit's added passion for the art of cartooning got him to explore diverse skills in varied mediums of communication. Today Ajit is at equal ease in his roles as architect, sculptor, painter, designer, cartoonist, caricaturist, comic-book artist and animation trainer. He has headed various animation-training programs at leading studios and has been a visiting faculty at premier design and architecture institutes in India. Presently Ajit has set up a studio in Lonavala, endeavouring to bring these diverse resources to the service of Indian cultural expressions.
The present world is changing in complex ways that require deliberation for us to be able to comprehend and project future responses. These changes are being effected by multiple sets of reason arising out of; doubts over the project of globalisation and liberalisation of economies, increased activism to protect our environmental resources and ecological system, the way we now increasingly connect in remote space that challenges the need for proximate exchanges due to the rapid strides in the field of digital technologies and finally to sweeping changes seen in the world of manufacturing, with the introduction of robotics and 3D printing that question the need for specialised manufacturing units for specific nature of goods1. Close to us, the parliament of our country has recently ratified the Goods and Services Tax Bill that would impact and transform the landscapes of manufacturing and work; subsequently our cities in the way we now know.

The celebratory tone arising out of globalisation and technology that existed a decade ago, no more seems to be the basis to create a new future. The approach seems to be more cautious and circumspect now, for valid reasons, given the doomsday prediction of climate change activists, depletion of our natural resources and a given a world that is being fractured deeply on the basis of religion, migration, inequalities of class – where the benefits of globalisation and liberalisation do not seem to have affected the majority of people. In this connected and shrinking world, enabled by new technologies, discontent spreads rapidly, practically becoming movements that have the power to disrupt established structures, as we have seen in recent happenings. It is in this background that we need to question the new challenges to design education.

In the context of design education, the last decade, knowingly and unknowingly, technology has been the primary drivers of change. However, presently, can design education surf solely on the wave of new technological innovations in the digital world? While it is widely accepted that the digital world will transform the way we presently conceptualise, visualise, represent, develop and materialise our design, this I think cannot be the sole criteria that shapes the design curricula in our schools. Some of the educators in design do vouch for the immense and liberating possibilities of the digital world to inform our design curricula, especially in the tectonic process of making and creating forms. However, this approach towards celebrating technology to transform the design process might tend to be exclusive; taking both, design and technology, away from the masses. This approach might not be able to address the new challenges that have been presented in the earlier part of the article. This is where a more critical approach is required towards using technology for which we need to develop students, who are aware of the “construction of their selves” in this complex world, and are consciously able to transform the relationship between “themselves” and objects, institutions, community; their culture, their techniques and processes of innovations. They cannot be silent and passive consumers in an exponentially changing world where commodification of objects, images, news, opinions, events, and so forth is the prime driver that serves the interest of a few. They have to train to have a reflexivity of their own “selves” as well as the world outside them2. This process of being able to be conscious as well as be aware of their surroundings and environment, the relationship of their selves with others, and being able to take decisions is what I propose as “thinking locally”.


2 Fernand Doridot (Author, Editor), Penny Duquenoy (Editor), Philippe Goujon (Editor), Aygen Kurt (Editor), Sylvain Lavelle (Editor), Norberto Patrignani (Editor), Stephen Rainey (Editor), Ethical Governance of Emerging Technologies Development, Section – 2, Pg. 38, Emerging Technologies – Which Reflexivity, IGI Global, 2013
In todays time, given the powerful forces of globalisation that tend to homogenise as well as impose on social and cultural diversity, “thinking locally” brings in the questions of ethics and human behaviour in design pedagogy which I believe is primary to being able to make design relevant to our times. By training students to be made conscious and aware of their selves and their immediate surroundings, we can help them achieve a reflexivity by which they could comprehend the sociology of objects, technology, community, events, and so forth. This can help them take an ethical decision in design that is relevant to our times and could assist the masses.

The notion of localisation is also important as changes that are being seen in the digital world, especially in the realm of remote connectivity, can lead to extremely decentralised and fragmented settlements with the need for less of physical exchanges. Coupled with the awareness of environment and ecology, which are an integral part of this thinking process, the dependence on centralised infrastructure for energy, water and waste would change. Decentralised settlements, completely off the grid where local governance by citizens takes a new meaning, are already being discussed. These are not merely wishful thinking as these are tendencies that are being observed in the changing world order. They pose new challenges for the design practitioners as well as design education that need to be addressed. In the core of it is the necessity to understand and relate to the immediate pattern observed in our people, their culture and their environment. I have often that observed, especially in the case of architectural education, that even in far-flung colleges that are located in remote rural and small town setting; the course is designed to address the desire and aspirations emerging from large metropolitan centres. Such institutions are completely blind to the immediate transformation that is occurring within their immediate contexts. I believe the future would respond to patterns present near us to be able to be aware and conscious of the ever-interconnected world.

Presently even as the country aspires to become a global manufacturing hub, it would be better to explore the possibilities of designing in the country. The changes that are being observed in manufacturing brought about through automation, digital technologies, would change the rigid and investment heavy assembly lines that manufacture a certain product to more flexible and fragmented possibilities that can manufacture varied objects that one can continuously improvise and innovate, to suit their requirements. 3D printing technology is already hinting towards such a future. It is time we train our students to meet such challenges where technology can be used to serve the masses. According to C.K. Prahalad and Stuart L. Hart, in a country like India where a majority of the population lies in the bottom half of the wealth pyramid, designing and innovating for them make valid economic sense.

In this article, it would not be possible to dwell on the methods to train students to achieve the reflexivity towards themselves and the world. This article is more like a manifesto that could be elaborated further. It hints towards a need to comprehend the importance of shaping the behaviour and psyche of our student through design education to be able to respond to the changes that are happening around us. Most of our education system is geared towards teaching students rather than providing them with an environment for learning. This I believe is detrimental to inculcating the values of thinking design that needs to start at an early age and not only in specialised design institutions.

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When invited to contribute a quick article of 1500 words on the ambitious and sweeping theme of Indian design education for the century, I was initially at a loss as to where to even begin. Too many ideas swarmed around in my head, all demanding space and attention. While thinking of an appropriate structure that might help clarify it, I recalled reading a slim book long ago; “Six Memos for the Next Millennium” by Italo Calvino1.

Although it was about future trends in literature, I had been very impressed by how, with crystalline transparency, Calvino had predicted the ethos of the new millennium and summed it all up crisply in six literary ‘values’ which he called ‘memos’. I decided to revisit the book for inspiration. What astonished me this time was how accurately these memos could describe the values of design education of tomorrow. I shall explain in the following pages. Most of the points are based on observation of current global trends and practices some of which are already being reflected in India. A few may be based on wishful thinking...

1. **Lightness**

Lightness is the opposite of heaviness or ponderousness2. Presently, our universities are like juggernauts pulled along by masses of people. It takes years before they can even begin to alter their direction slightly, that too if everyone pulls in the same direction which is rarely the case. For the hapless students the educational experience is often akin to being crushed and mangled under heavy wheels. Workloads are gruelling and inhumane, the creative process frantic, neurotic, and stressful. It takes an emotional toll, and many have emerged from design schools with distorted perspectives on work-life balance, and some with permanent damage to their self-esteem. This is condoned by teachers who believe that learning is not possible without toil, sweat, tears, and struggle because that is how they learnt in their times. If current trends are any indication, the future definitely lies in ‘lightness’ of design education. This of course does not mean shallowness or frivolity but lightness brought on by intelligent editing – teaching the learners only the overall branch structure of the tree of knowledge rather than all the leaves, which are available to them on the web anyway. It should be possible to adopt a more learner-driven, integrated approach to learning, pruning all the irrelevant, unnecessary, and duplicate workloads from curricula.

Future teaching and learning will be a source of fun and delight for both the teacher and the taught. As the gulf between the two reduces, they could move to the centre of the dance floor of academics. Support mechanisms viz. administration, registration, accounts, management, etc. that have grown clumsy and heavy-footed, but sadly form the public face of many design institutions, will move to the periphery where they belong. They could eventually be replaced by efficient, user-friendly, self-organising automated systems.

All forms of bureaucratic systems, controls, regulations, and paperwork (including electronic) driven by fear, mistrust, and suspicion might

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1 Written as notes for a series of lectures on writing, to be delivered at Harvard in 1985, Calvino set forth six qualities or literary values that would survive and flourish in the new millennium. These values were arranged in chapters, namely: 1. Lightness, 2. Quickness, 3. Exactitude, 4. Visibility, 5. Multiplicity. Calvino had meant to write the sixth and last chapter in the US, but before he could make the journey he tragically passed away. The book remained incomplete and was posthumously published in 1988.

2 Miriam Webster Dictionary full definition: 1. of very great weight, 2. unwieldy or clumsy because of weight and size, 3. oppressively or unpleasantly dull.
be replaced with increasing trust in fair transactions, and basic human goodness. Cultivating a balanced and buoyant approach to life will be an integral part of design education experience. Creativity, fulfilment, and upliftment will drive new economies, and pure knowledge alone may no longer hold much value.

2. **Quickness**

Quickness follows from lightness and results in agility and adaptability. With each passing generation, learners will get increasingly intolerant of any waiting, uncertainty, boredom, lack of relevance, competition, stress, or confusion. As opposed to ‘one size fits all’ and ‘take it or leave it’ attitude of premiere design institutions today, all pedagogic systems will have greater response-ability to quickly changing situations and demands of learners. This might happen simply because of the dramatic reversal of the supply and demand equation. All contents and delivery could be customised to suit individual requirements almost instantaneously. The long and painfully slow design process from concept to model or prototype could be telescoped to seconds as virtual reality and reality will merge. Technology could overcome present limitations to include senses such as immediate haptic feedback, materiality, tactility, smell, etc. to augment experiential learning in virtual studios. Sharing ideas, giving and receiving feedback could become instant and simultaneous, and will not be limited by space, location, time, numbers, or age-groups. Learning anytime, anywhere, anything, alone or in any group, at any pace could be the norm.

3. **Exactitude**

Exactitude is precision in action. As opposed to the present vagueness and muddle of hit or miss methods, future design pedagogy in India could be clear, sharp, focused, decisive, and self-reflexive. It could mean precisely identifying and making just the right knowledge available just at the right moment, and in just the most effective way possible, such that it involves the least effort to deliver and to absorb. A pedagogy could be developed that respects the natural law of conservation of energy, that follows the path of least resistance, like water flowing down a mountain stream. All assessment would be used only towards nurturing and learning purposes rather than as weapons. Transparent and precise standards of performance could be self-evident to the learner, leaving little room for subjective ambiguity. Learning experiences will be orchestrated with meticulous attention to detail, to form elegant, coherent, useful narratives that make sense to the learners and their everyday lived experience, rather than a meaningless jumble of modules, subjects, exams, and submissions that do not add up to anything. Certification could be based on precise definition and testing of overall professional capabilities in real world situations.

4. **Visibility**

Transparency and precision of focus lead to greater clarity and visibility. Learners could begin to actually visualise where they were, where they are now and where they are going at any stage. There would be increasing pressure to make things clear, explicit, and visible and not keep things hidden, vague, ambiguous, or opaque. Technology could help to externalise the most subtle and nebulous of ideas in the blink of an eye. Design education will be seen to be the
most rigorous and comprehensive form of education as it straddles the opposite pairs of theory – practice and logic-emotion. With increasing exposure to the web, there will be a premium on original research, ideas, and images, as plagiarism will be instantly detected and exposed. Design schools would be broad-based, available in multiple regional languages, and visible to the huge populations of youth in non-English speaking India. This would not only bring them employment and livelihood but also help them to construct meaningful lives, thus bridging the rural-urban divide.

Teachers and academics could be more visible, well-paid, and respected as professionals rather than seen as losers, misfits, or rejects from the industry.

5. Multiplicity

Multiplicity is visibility multiplied in many facets as in a crystal. In future, there could be a greater openness to divergent perspectives, plurality, non-goal-orientedness, and non-directionality of design education. It could mean learners constructing non-linear narratives for themselves from an intricate web of diverse intersecting flexi-paths and options that could begin or end anywhere and yet retain coherence. Design pedagogy could begin prioritising feminine qualities viz. emotional intelligence, collaboration, negotiation, holism, versatility, etc. over analytical skills, individualism, prescription, and specialisation. Artificial disciplinary boundaries between arts, humanities, sciences, commerce, and indeed all design disciplines could crumble, and eventually there could be a continuum established between India’s ancient wisdom and global modernity. Design education could graduate from its present role of problem-solving and indulging the privileged, and tackle larger issues plaguing society and the planet. It could grow to encompass and influence all aspects of the human enterprise – including agriculture, business, commerce, economics, governance, and politics, thus fulfilling its promise; to end human suffering and to create a better world.

6. Incompleteness

I shall conclude with the sixth value of my own. Incompleteness – a quality which I believe is essential to all good design education. Like the Zen circle, design education in future will be almost complete yet incomplete, leaving learners with an insatiable curiosity and appetite for life-long learning and discovery. Rather than limit itself to the smugness of ‘customer satisfaction’, it could aim to achieve ‘self-awareness of ignorance’ which could drive learners to learn endlessly, to finally go beyond all knowledge and intellect – to the beginning of Timeless Wisdom.

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DESIGN IS A VALUE ADDITION
– DESIGN EDUCATION IS AN EMPOWERMENT
– Yatin Pandya

The Statement of Ideal:
Design is about asking pertinent questions and finding appropriate answers. But it is not about finding one answer to one question. It is about asking many questions, finding many answers to each of these questions and then picking one answer that answers most to all questions. Thus it is about asking right questions, critically analysing the situation and looking for a holistic solution. This, in turn, calls for holistic concerns, analytical faculties and ability to discern between the appropriate and inappropriate. Appropriateness to the milieu – the place, the people and the program. Timeless aesthetics, socio-cultural appropriateness, environmental sustainability, economic affordability and structural safety are the five fundamental dictums of any good and holistic design. This is precisely what the design education has to prepare one with.

Egocentricity of Design
Ego in terms of forced imposition of form or predetermined appearance without verifying its contextual relevance has lately been popularised, if not legitimised, by over-exposure of certain eccentric projects by media, legendary architects’ popularity, as well as a quick glamour value. This practice has been detrimental to the spirit of exploration and contextual obligations.

Reality check of what quality design education ought to be what then is the reality?
Are our designs governed by the larger concerns for society and the environment? Or they are myopically responding to either the designer’s personal egos or the selfish demands of the clients? Designer as professional has a primary obligation to the collective societal good. Even though hired by the individual clients, his primary role is as an arbitrator between the individual demands and societal good – largely favouring the societal good. This does not mean charity or welfare, but it simply means acknowledging the fact that societal good and environmental concerns are important factors in the whole design equation.

Quantity Consuming Quality
Owing to the unfounded in the fact, zeal of the Council and concerned authorities in the past decade to create more and more schools of design, there has been instant sprouting of design education institutes. Even the established campuses have at least doubled if not quadrupled their intakes. Implying, where there used to be 20 to 30 students per class conceived to be the ideal number, has now gone up to even 200 per batch. The telling fact of the matter is that Council of Architecture, since its inception in 1972, took four decades to register a total of around 40,000 architects and India would now register nearly the same number every year with over 400 plus schools! This has not only led to a shortage of competent, dedicated and temperamentally suited professionals for teaching resource, but has also challenged the pedagogy with lopsided student-teacher ratio and rapport with an individual approach unique to every student.

Stunted Critical Faculties and Paralyzed Lateral Thinking
The basic education (primary or secondary) has been more about information rather than interpretation, Compilation rather than Criticism
and Percentage oriented rather than Performance driven. Design education has been relegated to solicitation of a degree rather than the holistic education involving inculcation of values, development of personal traits, as well as enhancement of critical thinking and innovation.

**Way Ahead**

Multiple initiatives are required at diverse fronts, may there be Council/Authorities, patrons of educational Institutes, course curriculum, teachers as well as students.

**Regulatory Authority**

For example, the council/authorities have to clearly envision and define the role, the scope and nature of design services and design service professionals within the current environmental, socio-cultural and economic realities and devise educational policies consistent to the same.

**Course Curriculum**

This should lead to a well thought out curriculum, which lays enough emphasis on values, information-based skill development, critical thinking as well as innovations and imagination. It should also acknowledge and incorporate into the course curriculum the cultural diversity of India, resource constraints within its milieu as well as the development models chosen for its future growth.

**Patrons of Education**

The institutional patrons have to be true and faithful to the agenda and vision thus charted out by the council/authorities and not lower the benchmarks outlined for commercial interests.

**Teachers as Mentors**

Teachers have to be fully aware that it’s a noble profession where not only the subject competence, but personal qualities as well come into play the most. They end up becoming a role model for the students who emulate teachers in most implicit and hidden ways. Integrity, dedication, patience, humility and passion need to be the driving factor for teachers to opt for such a career rather than economic gain and security. Professional education also should mandate the teachers to remain involved with practice as well as research and be abreast with time.

**Student as Learner**

Students need to be aware of their choices for the design education which demand personal initiatives, aptitude as well as involvement and therefore, not view it as a lucrative degree. A spirit of assimilation, as well as personal involvement for exploration and discovery, are the key and the qualities must for a design student.

**One Model of Pedagogy for Holistic Thinking and Involved Design Learning**

Often design gets relegated to two-dimensional diagramming which ends up within the myopic bounds of bubble diagram relationships, planar geometric coordination or graphical patterning; often devoid of experiential indulgence as well as emotive evocations in space making. Here is a matrix of ‘Six X Six’, proposed as one model of pedagogy,
which in my experience have evoked effective responses amongst students for holistic designs, analytical attitude, exploratory approach and self-involved learning in space making endeavours.

1. **Set of six design concerns (filters)**
   - Resource management – for environmental sustainability
   - Socio-cultural Appropriateness – for notional and functional comfort
   - Experientially engaging Architecture – for timelessness and plurality
   - Economic Affordability – for wider access to all and quality of life
   - Structural Stability and Safety – for posterity
   - Program Philosophy (Interpreted Values) – for inculcation of larger values

Any space design, good or bad, consciously or subconsciously involves the following six decision making. The holistic concerns would help take informed decisions and remain consistent in all six aspects of design decisions.

2. **Six basic design decisions**
   - Siting and location of the built structure
   - The form and massing
   - Organisational structure and the movement

Any design brief must be interpreted and reviewed against these six sets of concerns as filters to sieve design through. As multiple lenses to see a design from multiple points of view addressing holistic concerns of culture, climate and construction. Of Utilitas (function), Firmitas (strength) and Venustas (beauty).

3. **Six Elements of Space making**
   - Floor
   - Column
   - Wall
   - Fenestrations (Door and Windows)
   - Stair
   - Ceiling/ roof

Any space design remains to be the assembly of six basic elements of space making. Being aware of spatial role inherent to each element along with its potential in spatial communication and perception would help create evocative spaces rather than spaces as rooms stitched through mere geometric coordination.

4. **Six natural elements of space making**
   - Sun
   - Wind
   - Water
   - Landform
   - Vegetation
   - People and Activities

Design can never stand in isolation of nature. Rather than remaining oblivious to nature if we recognise nature as potentially the spatial elements and integrate them in space making they by their very virtue of ever changingness would bring spontaneity, variety and dynamic freshness—much needed in timeless designs.

5. **Six points of views for Spatial Narratives**
   - Spatial scenario of its distant
glance/point of view as prelude and orientation
• Narrative for an approach towards the built structure to create the desired transition
• Experience at the very point of Entry to create the desired frame of reference
• Two particular points, from within the built structure, as key vantage points
• The narrative for exit sequence to help unwind

Space design is essentially a dialogue between the designer as the encoder of the message and perceived as the decoder of the same. This perception in space design is a dynamic phenomenon as space is never perceived from a static point of view, it is a continuous journey and thereby entails dynamic perception – kinesthetics. Perception while in movement. Therefore for interactive and evocative dialogue if designs are perceived – like a film director – to conjure spatial themes/space scenarios at minimum six critical junctures of space, we usually encounter, it would yield spatial narrative going beyond just the assembly of rooms and bringing in experiential aspect while conceiving the space.

6. Six tools of design explorations
• Brainstorming
• Freehand sketches
• Spatial installations
• Physical 3D model making
• Reference imaging and digital media
• Orthographic plan-section

Designs are conceived, explored and resolved through various tools by the designer, and each tool has its affectivity and contribution based on its characteristics and limitations. All the tools must be used but in respective stages. The brainstorming can help bring holistic concerns and lateral thinking with multiple interpretations and is effective in initial stages. Freehand sketches can help visualise basic conditions and relationship and remain open-ended to receive other inputs. Spatial installations, least understood or explored in Indian aesthetic teachings are most potent tools for spatial narrative as well as experiential and interactive dialogues. Designs must explore this tool that helps clarify narratives and abstractions while remaining spatial and contextual. Orthographic tools are useful in assigning scale and dimensional coordination. Sections remain unexplored which bring volumetric understanding. However, 3D physical models (another tool getting extinct in design explorations) remains the most effective of all in remaining fully involved with all aspects of design as well as comprehensive visualisation of space in volume and different viewpoints and most importantly like playing ‘Barbie’ remain fully involved and engrossed with space conception.
This Matrix of Six X Six is exhaustive and not selective and must be applied with all its dimensions. Any design project explored through this matrix of Six X Six should help derive a holistic resolution with wider concerns, should engage the student with exploratory zeal and spirit of discovery, should build analytical/critical thinking, as well as help, visualise in the totality of its three-dimensional form, spatial narratives as well as philosophical underpinnings.

Outcomes such as this would be process-driven, self-indulging and meditated, leading to clarity of thought, conviction of an idea and confidence in its resolution.

Traits much needed in a design field loaded with subjective interpretations. Design can add value. It can improve the quality of life and empower the society economically, ecologically as well as emotionally. Design education, therefore, must live up to that…

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