THREE HOLY MYTHS OF ARCHITECTURAL EDUCATION IN INDIA.

Srinivasan Badrinarayanan

This paper addresses the largely prevalent practice of architectural pedagogy in India. There may be few exceptions to these predominant trends and they stand as important beacons of hope. The predominant pedagogy suffers from many 'myths' or fallacies. This paper identifies three of these myths as fundamentally deadly which need to be urgently exploded in order to pave the way to reform the education. The first myth deals with the 'content' or 'what' is taught. The second has to do with 'how'; i.e. pedagogic bias. The third has to do with the overall philosophy of knowledge or "epistemology". The myths are:

Myth 1: Architectural education = Design education = Iconic form making

Architectural education is ostensibly geared to producing the 'ideal' or the 'model practitioner'. However we need to look at who is this ideal and examine if the lurid calendar image of the model practitioner is indeed realistic, sustainable or appropriate given the ground realities of conditions in India. Internationally, there has been a trend to hold up iconic objects created by "signature architects" such as Frank Gehry or Zaha Hadid as exemplars of "creative" architecture. Hyped by the media, such projects might pander to the novelty seeking nomadic tourists who might animate their plazas but their impact on the daily lives of ordinary people remains minimal. Global corporations have further promoted this facetious, self-indulgent approach to design and have created architectural "Disneylands"; be it in Dubai or Shanghai. These are being aped in India, in Gurgaon or Bangalore, where huge energy guzzling monuments stand proudly in steel and glass surrounded by forgotten, torn fabric of cities, where average people struggle to live with basic human dignity.

Myth 2: One can pull up average competence levels across the class by concentrating on a few geniuses in the studio.

Myth 3: Delivery of knowledge can be fragmented. Integration of knowledge happens 'automatically' inside learners.

An earlier version of this article was published in ABACUS
John Habraken points out that historically, specifically since the Renaissance, there has been a shift in what is perceived as the architect’s role and his domain of operation. Earlier, architects worked within the seamless fabric of the city and enriched the “everyday environment”. Since Renaissance, there has been a preoccupation with creating “villas” and “iconic monuments” that were isolated from the city, surrounded by open landscape. He argues that this significant break makes us all modern architects “Palladio’s children”, as this legacy of the architect’s self-image as the isolated genius who creates aloof, sculptural monuments has completely taken over and dominated architectural discourse and continues to do so till date. The real loss resulting from this unfortunate shift of focus has been the quality of the public, civic domain of our habitat.

Traditional cities had a vibrant, friendly public realm that nurtured communities as well as individuals. Compact, self sufficient neighborhoods had a sense of ‘place’ and catered to every human need and activity, be they for living, work, trade or recreation. Each new additional built intervention respected an unwritten civic code of gracious generosity for its immediate neighbors and for the public space around it. Over the years this natural code of human civilities seems to have broken down and replaced by greed, indifference and mindless “planning codes” that have lost sight of the whole picture. Now every “plot”, large or small, is treated as an isolated parcel of land plugged parasite-like to the city only by a “vehicular access road”. The architect’s sole expertise is now reduced to that of the creation of a self-referential object-monument within this “plot”. This encourages unabashed individualistic architectural self-expression and aggrandizement that passes off as “creativity”. The interstitial public spaces between these “compounds” or parcels of land seem to be no-man’s land and nobody’s baby.

As our villages boom into towns and towns grow haphazardly into metros with dispersed suburbs, citizens are bewildered as to why going to work, sending children to school, shopping for one’s daily needs or meeting friends which were once their daily pleasures have become such daunting nightmares; and why is that only private gated realms are designed, manicured and maintained while civic urban spaces such as streets, pavements, open spaces and urban ‘edges’ are chaotic, neglected and in shambles.

While evaluating architectural standards in India, Indian architects are quick to point to the grand iconic monuments and feel complacent about their achievements. The truth is that the quality of the “average built environment” in the fast transforming fragmented fabrics of our towns and cities remains shockingly poor. As architects further specialize into ‘experts’ such as Planners, Urban designers, Landscape architects and Transport planners, each vying to leave their lasting mark on the cityscape they often work at cross purposes only leading to more confusion and chaos. Architectural education must address this fundamental problem and take responsibility for the quality of the total built habitat to challenge the status quo. The argument that architects do not make the larger decisions is self-defeating. The only way architects can influence policies is to become politically aware and become pro-active in the decision making process. This calls
for a different kind of training.

It means that politics of power relations, be it of economic systems, social hierarchies, cultural practices, environmental ethics or gender equations must be critically examined and understood as the primary forces that actually dictate our built form and not just “artistic self-expression”. To do this one must adopt a wider perspective of the architect’s role in society and in the development processes and problematize these issues in the design studio projects. In other words architectural studio problems cannot only remain as “problem-solving” exercises of how to ‘fit’ a given area program on a site and to create interesting forms from whimsical ‘concepts’ but should be seen as exercises in discovering the ‘connections’ between theoretical, political issues and technological solutions. It means critically examining and learning from precedents of healthy, sustainable settlement models and not inventing for invention’s sake.

As educators, perhaps it is also time we reconciled ourselves to the fact that not every architect that graduates becomes or needs to aspire to be a Howard Roark or a Frank Gehry. A majority of architects become part of and contribute significantly to larger design teams, remaining unseen and unsung by the star-hungry media. Many become competent “service providers” to small and medium clients who in fact shape and sustain the very fabric of the everyday environment. “Genius architects” who build monumental projects are but an insignificant minority. Education so far has refused to see and acknowledge this important reality and is geared to pushing every student into being a primadonna. The message seems to be “either you are a genius building big iconic projects or you are nothing”.

Also the fact that architects on an average, spend only 20% of their total professional time designing and the rest in managing and coordinating their services is not being addressed in education which continues to remain stubbornly “design-centric”. Thus important professional skills such as listening to clients and users, collaborating and team working with other consultants and agencies, negotiating, managing time, finances and people are not “taught” but are expected to be “learned on the job”. This is condoned on the basis that not everything can be taught in four and a half years. However there could be another reason for maintaining a blinkered, half-baked approach to architectural education in India which is far more sinister.

Since architectural education has been conceived, and administered and regulated as technical-vocational, most of the teachers happen to be drawn from practicing professionals. Insecure about competition, many professionals find it acceptable to groom office assistants through education and are reluctant to share “trade secrets” which they have struggled long and hard to learn in their own private practices with students and other faculty. This smug reticence has only led to stagnancy, redundancy and dilution of education to absurd levels over the years. Realities of how a project is pitched for, how it is negotiated, coordinated among the various agencies and executed are seldom shared as case-studies. This presents a warped, one-sided picture of the profession to the learners.

The latest “social-situational” theory of learning indicates that learners gradually move from the
Architectural education is much more than just Design education which is much more than just iconic form-making.

**Myth 2: One can pull up average competence levels across the class by concentrating on a few geniuses in the studio**

Design tutors often confuse the term “competence” with “competency”. According to Terry Hyland, ‘competence’ is a more holistic and integrative term involving social, moral, and intellectual qualities and focuses on the overall person and his/her virtues. In contrast ‘competency’ is simply a skill, a particular ability that only refers to an activity. ‘Competency-based’ education is now being increasingly questioned globally on its dubious educational values. It is more like vocational training, where a particular ‘shopping list’ of skills is developed through mechanical repetition and training, the problem being that these skills do not add up to a ‘whole’.

The other apprehension that is widely shared amongst teachers is that the pursuit of high average competence in the studio will lead to overall ‘mediocrity’ in design and blunt the geniuses. Steven Hurtt clarifies that while both “Genius” and “Competence” are valid objectives of studio education; they have far-reaching implications on the students’ and teachers’ development. The following table attempts to compare the pros and cons of both the approaches.

It is clear from the table that for the novice learner, the advantages of competence-based pedagogy far outweigh those of genius-based pedagogy. It also appears that the disadvantages of genius-based pedagogy (clearly visible in studios today) are far more damaging than those of competence-based pedagogy. Recent research into the phenomenon of ‘creativity’ has shown that in any domain of knowledge, it is necessary for novices to master the abstract language of the domain and achieve competence first before creative breakthroughs can occur. The larger the ‘base’ of competence in a domain, the greater the ‘peaks’ of creativity. ‘Genius’ or ‘excellence’ in architecture has to be based on the firm foundations of overall ‘competence’.

In India while studio projects are agreed among the faculty, the pedagogic objectives are not articulated and shared thus remaining largely ‘implicit’. Because the “body of architectural knowledge” is not made explicit, it cannot be and therefore is not holistically structured as a sequence. Novice learners, especially from non-urban-elite background find it hard to assimilate design knowledge from one episode to the next, giving rise to the “hit or miss” approach to design. This is further compounded by the
teachers’ preoccupation with the ‘geniuses’ or ‘stars’ in the class, as it is believed that the production of a few “brilliant designs” will pull up the average students and make them perform better. A corollary of this is another widely prevalent premise that more the formal variety in design solutions, the more successful the studio as there is more ‘creative freedom’.

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<th><strong>Competence-based Pedagogy</strong></th>
<th><strong>Genius-based Pedagogy</strong></th>
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<td><strong>Pros</strong></td>
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<td>A carefully developed pedagogy teaches the body of knowledge while introducing students to the most current critical thought related to that body of knowledge.</td>
<td>The professor is making significant contribution to the field, and engages the students in the development of that contribution, exposing the students to the leading edge of critical or design thought.</td>
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<td>Students benefit from a strongly developed sense of increasing competence and the ability to learn, from being productive in design and problem solving, and from understanding their work within the framework of a larger body of knowledge.</td>
<td>Faculty who are developing new ideas can test them through studio teaching, engaging students in postulating results, reflecting on the critical perspective and results.</td>
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<td>Students and faculty alike benefit from an agreed upon and explicit body of knowledge and pedagogy that provides basis for constant improvement.</td>
<td>The genius assumption fits the university model of significant contribution to the field, particularly regarding the professor as artist-architect.</td>
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<td><strong>Cons</strong></td>
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<td>Individual faculty members can give up the pursuit of rigorous intellectual agenda and testing of ideas for the good of larger group or curriculum. This is sometimes the result of impatience with an effort to work diligently and responsibly towards common goals.</td>
<td>Unbounded belief in the individual professor can lead to a child’s play masquerading as critical or innovative thinking. This could result in neither the competence offered by exposure to the body of knowledge, nor innovative thought resulting from profound intellectual engagement.</td>
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<td>Faculty can readily agree to an individual faculty member’s strategy for a given studio if it relieves them of the responsibility for it. When the results are of an acceptable level it is easier to acquiesce than to push for clarification or alteration of pedagogy.</td>
<td>Faculty are not required to work through a curriculum in detail, and therefore critical engagement among faculty is not developed.</td>
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<td>While the body of knowledge is emphasized, there may be a disconnect between it and the most current critical thought or development. Students may not be engaged at the leading edge of critical thought.</td>
<td>The lack of structured and holistic sequence fails some students—those who don’t sort it all out. Their failure is rationalized on the basis that they weren’t potential geniuses after all.</td>
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<td>Naïve self-interest and self-expression can introduce blocks to real learning and to the body of knowledge because it is seen as irrelevant to self.</td>
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Table 1: Competence-based vs. Genius-based Studio Pedagogy
(Source: content by Steven W Hurtt, tabular form by author)
Genius-based approach is implicit, exclusive, teacher-centered, unstructured and so privileges the already gifted. The resultant lack of basic competence is frustrating for teachers in the senior years who might want to explore ‘cutting edge’ research in their studios, often leading to a cascading blame-game. There is an urgent need to switch to Competence-based, explicit, holistically structured design pedagogy that is student-centered and inclusive. It will enable a larger cross section of novice learners to make sense of what they are learning through the sequence of the course. This means that one needs to explore better alternatives to prescriptive, implicit, over-the-shoulder-desk crits that is the norm today as the predominant vehicle of teaching.

The present system of breaking down the design problem into a linear episodic sequence of “stage submissions” such as ‘concept’, ‘program analysis’, ‘site analysis’, ‘site zoning’, ‘sketch design’, and ‘final presentation’ is highly questionable. Experience has shown that as each stage is separately graded, learners feel that once “reward” or “punishment” is received, the learning episode is over and are not motivated to “transfer” learning from one episode to another. According to Bigge and Shermis, “the goal of all learning is to make information portable, so that learning travels with the leamer to new locations. In the new locations, the learning is transferred and applied in novel, interesting, and innovative ways. When transfer of learning occurs, it is in the form of meanings, expectations, generalizations, concepts, or insights that are developed in one learning situation being employed in others”.

Given the fact that architecture is an ‘integrative’ discipline, at present the biggest problem with the curriculum seems to be the complete fragmentation of learning into various ‘subjects’, ‘tests’, ‘studios’, ‘submissions’, each of which seem to exist in water-tight compartments with no transfer of learning occurring ‘automatically’ in learners although it is assumed that it would. There is no ‘horizontal integration’ of various subjects and studios across one year, neither is there ‘vertical integration’ of one learning episode from one year to the next, etc. Yet every few years new subjects are added to the syllabus. This brings us to the next myth underlying our entire education system, a myth so big that it remains invisible and unchallenged; that knowledge can be delivered in isolated fragments.

One would like to replace the second myth with: Genius-based pedagogy cannot raise average competence, but competence-based pedagogy can not only achieve high average competence, but also produce more geniuses in the long run.

**Myth 3: Delivery of knowledge can be fragmented. Integration of knowledge happens ‘automatically’ inside learners.**

Underlying every current practice is a hidden belief system or philosophy. If experience shows that practices do not work, it is the underlying philosophy which needs to be examined and reviewed. What is the philosophy of knowledge (or epistemology) that current practices are based on? Epistemology involves concepts of knowledge, its production and transfer from teacher to leamer which naturally also involves the question of what is a teacher and who is a leamer. It has been widely observed that in contemporary India, ‘education’, (especially professional education) is perceived only as
a prized ticket to employment and personal prosperity and not as the means to comprehend reality; be it physical, social or environmental, and shape it for the better. This ‘commodifies’ and ‘objectifies’ knowledge as ‘precious’ and so creates an artificial disparity between the ‘haves’ and the ‘have-nots’; between the teacher and the learner. The unequal power equation in the traditional Hindu notion of the ‘guru-shishya’ as well as a strong patriarchal family structure in society further contribute to vesting of unquestioned ‘authority’ and total ‘surrender’ of the self to ‘elders’ and to ‘those who know’.

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<th>Concept of the learner</th>
<th>PEDAGOGY</th>
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<td>The role of the learner is by nature a dependent one. The teacher is expected to take full responsibility for determining what is to be learned, when it is to be learned, how it is to be learned and if it has to be learned.</td>
<td>Because of the process of maturation a person moves from dependency towards increasing self-directedness, but at different rates for different people and in different dimensions of life. Adults have a psychological need to be self-directing.</td>
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<th>Role of learners’ experience</th>
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<td>The experience learners bring to a learning situation is of little worth. It may be used as a starting point. The experience from which learners learn is that of the teacher, the textbook writer, etc. The primary techniques of teaching, accordingly, are transmitted techniques--lectures, reading, etc.</td>
<td>As people mature they acquire an increasing reservoir of experience that is a rich source for learning, for themselves and others. Adults attach more meaning to learning they gain from experience than what they gain from passive methods. The primary methods for adult learning are experiential.</td>
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<th>Readiness to learn</th>
<th>PEDAGOGY</th>
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<td>People are ready to learn what society says they should learn, provided the pressure put on them (i.e. fear of failure) is great enough. Most people of the same age are ready to learn the same things. Thus, learning is to follow a standard curriculum with a uniform progression.</td>
<td>People become ready to learn something when they experience a need to learn it in order to cope more satisfyingly with real-life tasks or problems. The educator has a responsibility to help them discover their ‘need to know’.</td>
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<th>Orientation to learning</th>
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<td>Learners see education as a process of acquiring subject-matter content, most of which they understand will be useful only at a later time in life. Thus the curriculum should be organized into subject-matter units which follow the logic of the subject. People are subject-centered in their approach to learning.</td>
<td>Learners see education as a process of developing increased competence to achieve their full potential in life. They want to be able to apply what they learn today to living more effectively tomorrow. Thus learning experience should be organized around capacity development categories.</td>
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Table 2: Pedagogy vs. Andragogy (Source: www.infed.org).
Recent research has shown that such deeply held beliefs can affect one’s learning abilities. “Personal epistemology” is one’s ideas about knowledge, its source, its structure, etc. According to Schommer, with maturity, personal epistemology evolves from “simple” to “sophisticated”. “Learners with simple epistemological beliefs view knowledge as absolute, black or white, handed down by authority, acquired quickly or not at all and that the ability to learn is fixed at birth. With sophisticated epistemological beliefs, learners embrace knowledge as complex and tentative and the source of knowledge shifts from the simple transmission of knowledge from authority to processes of rational thinking”.

The evolution from simple to sophisticated personal epistemology needs to be supported by a corresponding shift in pedagogy. Malcolm Knowles distinguished “Pedagogy” (art of teaching young children) from what he termed “Andragogy” (art of teaching adults). This fundamental shift brought about the development of Humanistic learning theories that greatly influenced the practice of teaching and learning in the universities in US. The following table compares Pedagogy and Andragogy based on four main assumptions that can be found within each approach.

Thus Andragogy emphasizes the creation of ‘need to know’ so that learners can ‘actively’ seek out and discover the knowledge for themselves (active learning), rather than be ‘spoon-fed’ or ‘force-fed’ (passive-learning). Here, there is an important distinction to be made between the two kinds of learning.

Passive learning is where the student just takes in what the tutor teaches. This is said to be less effective than active learning, where the student seeks out and discovers what he or she wants to understand. Passive learning is said to encourage surface learning rather than deep learning. Surface learning concentrates on the words rather than the meanings of what is being studied, whereas deep learning looks for the meaning of what is being learnt, and is insightful.

The philosophy or theory that underlies the fragmentation and ‘objectification’ of knowledge is “Objectivism”. Objectivists believe that knowledge is universal, exists in books and with the teacher, and is transmitted to the students. Teachers are considered ‘full vessels’ and learners are considered to be passive, ‘empty vessels’ or ‘blank slates’. This paradigm is being challenged globally and is being replaced by the more recent “Constructivist” theories of knowledge. Constructivists believe that knowledge does not exist independently ‘out there’ but is actively ‘constructed’ by the learner. Latest research into the workings of the human brain confirms that humans actively build on ‘prior knowledge’ through association and in the process construct an internal ‘narrative’.

Since Objectivism treats learners as ‘blank slates’ it does not take into account their prior knowledge or cultural backgrounds. It in fact ‘neutralizes’ the learners and is therefore clumsy for exploring diversity of self, ‘lived experience’, culture and contexts in architectural education. It is no wonder that education is reduced to memorization of ‘facts’ and at best, their ‘analysis’. There is little room for subjective interpretations or insights, which are crucial for producing new theories and arguments.
It is interesting that while in the Objectivist paradigm the teacher is seen as a ‘master’, in the Constructivist paradigm the teacher is seen as a ‘liminal servant’ who facilitates learners in the construction of their knowledge. Both teachers and learners are seen as ‘learners’ producing new knowledge through dialogue and interaction. The principles of Constructivist pedagogy are:

- Learning should take place in authentic and real-world environments
- Learning should involve social negotiation and mediation
- Content and skills should be made relevant to the learner
- Content and skills should be understood within the framework of the learner’s prior knowledge
- Students should be encouraged to become self-regulatory, self-mediated, and self-aware
- Teachers should provide for and encourage multiple perspectives and representations of content
- Students should be assessed formatively, serving to inform future learning experiences

One would like to replace the third myth with:

Knowledge can be specialized but not compartmentalized and transmitted. The fundamental role of a teacher is to create a ‘need to know’ in learners and to facilitate their own construction and integration of knowledge.

It is interesting now to see how all the three ‘myths’ are inter-related and reinforce each other. The first myth is about the ideal architect as an isolated artistic genius operating outside society and disconnected from the city’s everyday environment. The second myth serves the first and is reflected in current studio pedagogy, which is predisposed to producing such ‘geniuses’ through implicit and unstructured teaching methods. The third myth underlies the second as the basis of the lack of overall structure, coherence and continuity in the delivery of knowledge which forces all learners into being either a ‘zero’ or a ‘master’. All the three are based on utopian ideas; the ideal architect, the ideal student and the ideal of universal, canonical knowledge; that have nothing to do with contingent realities of habitat, the context of the profession, the learner or the learning processes. As educators, perhaps it is time we re-acquainted ourselves with all these and relearn in order to teach.

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http://www.personal.psu.edu

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**Srinivasan Badrinarayanan**

Srinivasan Badrinarayanan graduated from The School of Planning and Architecture (SPA), Delhi in 1982 and worked with some leading architectural practices. In 1994 he started a multi-disciplinary consultancy which has been engaged in architecture, interiors, graphics, stage, exhibitions, and product design. He began teaching design part-time at the TVB School of Habitat Studies, Delhi in 1991 and at SPA since 2001. In 2010 he was awarded PhD for his thesis at SPA titled “Architectural Education in India: Reforming the Design Studio”, in which he conducted several studio teaching experiments, applying Kolb’s Experiential Learning Theory to design studio pedagogy. Badrinarayanan has several publications to his credit and is currently professor at the department of Interior Architecture and Design, Pearl Academy of Fashion, Delhi. His interests include transformation of traditional crafts and architecture, inter-disciplinarity, learner-centric design education, Indian classical music and Buddhist philosophy. He can be contacted at narayan.badri@gmail.com.