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Authoring Design Studios

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ABSTRACT

The design studio is central to architectural education prompting investigation into its nuances, and several scholars are now engaged in its analysis, mostly in the western world. Hardly any work has been undertaken in the Indian context, and this essay aims to initiate such research, necessitated largely due to the lacuna in any form of support for teachers who form the backbone of any system towards better teaching. It dwells on the modes of knowledge production and application in the design studio and the role of a design teacher.

This essay raises a question of authorship in a design studio having a bearing on the learning process of the student. The structure and design of the studio emerges from this question, and two possible collaborative models are discussed. This essay challenges certain assumed roles of the teacher to encourage reflective practices for a richer learning and teaching experience. It is based on personal experiences and is penned as a process of sharing through analysis.



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Her interest in traditional architecture led to several publications and a PhD in the Water Architecture of Arid India. Her architectural practice engages with the design of public spaces in India as inclusive dignified realms and includes projects for transit, education and special buildings like zoo.

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Introduction

The design studio pedagogy has been at the centre of architectural education for almost two centuries, starting from the Beaux Arts, through the Bauhaus into the present day. Its continuity has offered investigation into

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its nuances, and several scholars are now engaged in its analysis, mostly in the western world. Hardly any work has been undertaken in the Indian context, and this essay aims to initiate such research, necessitated largely due to the lacuna in any form of support for teachers towards better teaching. Teachers, who form the backbone of any education, struggle with the numbers, and institutions struggle with quality educators. Recent proliferation of numerous architecture schools in the country begs to ask the question of the quality of the education in the country. The shifting demography of India towards a younger population will further stress the system. This essay challenges certain assumed roles of the teacher to encourage reflective practices for a richer learning and teaching experience. It is based on personal experiences and is penned as a process of sharing through analysis.

Design Studio's Central Position

The centrality of design studio has been emulated across all design disciplines. It implements the premise of creativity and

is the location of applying the knowledge about the discipline, tempered with individual capacities. In the studio, the student journeys through a process of design that includes abstracting and conceptualising, articulating relationships, developing alternatives, explorations of material and structure, and so on. It is the space where students learn by trial and error, by doing and making, through 'reflection-in-action' (Schön, 1987). The design studio's pedagogy of learning by doing has created a project-oriented process of acquiring knowledge that emerged from the apprentices in an atelier format. The format depends highly on the craft of the craftsperson, in this case the teacher.

This essay shares observations and reflections that came about while teaching design studios at undergraduate and postgraduate levels. It does not offer techniques or methods, but the descriptions of 'thinking-in-action' (Schön, 1987) are a means to create conditions of enquiry of the process.

The essay hinges on the premise that self-learning is the most crucial feature of the studio pedagogy. Polanyi's *Personal Knowledge* (1952), Senett's *Craft Reader* (2008) and Pallasmaa's *The Thinking Hand* (2009), all discuss this process of learning in different ways. For Pallasmaa, the "indeterminate, dynamic and sensually integrated essence" of educational training is established through the *embodied* condition while for Senett, it emerges from the process of craftsmanship that "represent[s] the special human condition of being engaged". Polanyi captures this process of acquiring knowledge as 'tacit knowledge', the essence of which is captured in the phrase "We know more than we can tell" of Raymond Hainer (Schön, 1987).

Design Teacher

The role of the teacher, in this learning process, is vital as it is not dependent on pre-existing ordered and composed textbooks, but meanders along a path set by the teacher. And yet, to the best of my knowledge, from

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the available information on architectural education in India, no programs, workshops or other formats of education exist that provide any certification for teaching a design studio. For becoming a design studio teacher, the only criterion current is a degree in architecture, fortified by some experience in the field for the entry-level tutor. It is assumed that regular engagement with teaching and the qualifications will create the ability for design tutoring. Beginners predictably retrieve their own personal experiences as students to navigate this new task.

Formal structures of professional learning for teachers are yet to be established though each institution contributes informally through peer learning or through short workshops. My experience in conducting these workshops indicates high degree of interest in improving teaching quality from the participants. However, an underlying anxiety of performance, institutional appraisal, inadequacies of background knowledge, expectation of institutional support inevitably weigh on them. The design studio is conducted within diverse frameworks of

institutional conditions that relate to goals, expected outcomes, studio timings, student-teacher ratios, format of units, classroom spaces etc. Conversations about external circumstances of delineation over which teachers may not have impact, offers little in terms of way forward. Hence, it is really the instructional traits that are under discussion, pertinently, the 'how' of the design studio. It relates to the personal characteristics and capacities of the tutor, the professional and background knowledge, communication skills, construction of the program and experience that contributes to the studio.

The Knowledge Paradigm

The design studio contributes to the knowledge paradigm as the space of applied knowledge and empirical learning. What is this applied knowledge? The students learn about various aspects of architecture in their other courses. They learn about technology, materials, construction, structure, human societies, environment, representation skills and so on. The students learn from experiments, research and writings of other authors and assimilate those as principles. The principles are also exemplified to create familiarity with the subject matter. Through the abstractions, condensations and discretion of the teachers, they learn overarching perspectives and relevant detail. Each institute orients their students to the three broad streams of technology, history and humanities and environment in ways to suit their broad vision and philosophy. Over time, emphasis in each stream shifts, either responding to external conditions like socio-economic and professional conditions or internal assessments. Eventually, the goal of providing this knowledge base to the student is for them to bring together all

the various familiarities and abstractions in the studio and demonstrate the learning. A process of synthesis is initiated in the design studio.

The design exercise seeks to bring out the multiple facets of the built environment through

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a hands-on learning process that allows students to think, learn, and do at the same time. They grasp the issues, the directions, the problems and the solutions by doing and each instance of a review or a ‘crit’ of the design leads to reworking, redrawing and redoing. Directions may change, modifications and iterations may emerge and new ideas can get formulated. As Pallasmaa (2009) says, it “implies endless practice and repetition that borders upon boredom. However, the gradual improvement of performance, combined with dedication, keeps the negative sense of boredom at bay.” The new generations of fast paced, gadget dependent, impatient students who require constant new stimulus pose a challenge to the teachers. The studio teacher assumes an obligation to steer the students through this boredom vs. improved performance as a causal, formative discussant. Students organize these experiences as mental models, and require encouragement or sense of achievement as incentive to continue their work. Teachers cognizant of this, provide the appropriate information, catalysts, critical assessment and

encouragement for students to actively process and question ideas for further action. At all moments, the teacher is pushing the students to assimilate the new knowledge into the process. How to introduce a diversity of aspects within the studio, while still encouraging a certain degree of repetition-based learning is a balance through which teachers have to guide their students.

Learning from peers is an important component of this knowledge paradigm. Open and free discussions, internal reviews, analysis of peer work, a physical studio space with the surfaces filled with work of students at various stages, multiple physical models on tables contribute to a dynamic environment that provides students with stimuli focused on the project. This dynamic

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gets referred to as the ‘studio culture’. My experience has shown that encouraging gadget free durations of work within the physical space of the studio is another strategy that contributes to a positive studio environment. Results of the work done in that duration become sources of inspiration to the student. An effective learning environment is constructed, engaging the student in a focused manner. Eliminating distractions for extended durations enables students to optimize the pedagogical benefits of the studio format.

Diversity and variety is another strategy that contributes towards retaining student interest in their work. A tutor consciously and proactively creating diverse conditions for students to situate themselves contributes to their larger body of experiences. Immersive learning occurs by encouraging visits to various relevant places, buildings and environments. The places in which the students work, the locations of various experiences, diversity of modes of delivery and dialogue and effective use of technology are all contributors to the dynamic studio culture.

Synthesizing the knowledge acquired from a diversity of sources including other streams, other people, the teacher, personal experiences or digital media results in integrated learning that is the ambition of any design studio. Most studio teachers aspire for an integrated learning to be visible at the end of the term, particularly in the middle and higher levels. Typically, integrated learning in the studio would demonstrate a sensibility for structure, material, services, environment, people and technology. This equips them to respond to a real practice condition where they are expected to be able to resolve and address all the multi-faceted aspects of human society.

Authorship in a Design Studio

The studio pedagogy poses another question - who is the author of the design studio – the teacher or the student? The etymology of the word author suggests it to have originated in the mid-14th century from the Old French word *acteur* – “author, originator, creator, instigator” and directly from Latin *auctor* – “promoter, producer, father, progenitor; literally “one who causes to grow” (Oxford dictionary / etymonline.com). In the context of the design studio, the

teacher as someone who sets up the problem can be considered the author but the student interprets it and is assumed the creator of the design. This collaborative relationship with respect to authorship opens up the questions of to what extent is either one the author or how to determine the authorship of the design studios? In more recent times, this question of authorship is of particular interest to me as it determines the learning process of the student. The structure and

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design of the studio emerges from this question, and two possible collaborative models are discussed below.

The aspiration for integrated and reflective learning poses a dilemma to the teacher – should it be achieved through an individual student’s discovery driven process navigated through conversations or does it get structured through a series of actions authored by the teacher and implemented by the student?

In the first case the tutor makes use of their expertise in architectural design to enable the student to ‘reflect’ upon their work during the desk crit. By verbalizing potential steps forward, or by providing alternative ways of looking at

the design, or emphasising some criteria, an explicit explanation of the design is combined with a tacit operation. Thus, without direct instruction, the students are being schooled to deliberate and expand their personal knowledge. Over time, the design action is internalized and becomes tacit knowledge. It has a much higher rate of retention, though can become too strongly lodged in the minds of the students. It is expected that the eventual outcome will demonstrate this process through student responses to the studio emphasis. The teacher deliberately takes a 'second author' role in the collaboration, while encouraging the student to take ownership of the premise and author her own effort. Such a process founds itself on clarity of background capabilities of students, hinges on anticipation of student responses and accepts the likelihood of high degree of variations in the outcomes. Each student's variable learning and assimilating capabilities will be reflected in the overall result.

In the other case, the teacher not only authors the program, but also the actions students have to undertake to achieve design competence. For each action taken, they discover the possibilities and learn to assess the value of such possibilities. They learn to take decisions based on analysis. Since the teacher has authorship over the process, there is less ambiguity, and hence larger control on the students' outcomes. The student is likely to see progress in a more definitive manner and thus, encouraged to be engaged with the work. There is a greater degree of consistency in the studio outcomes. However, as the tutor directs the students' thinking in action, the internalization of the process may or may not occur. A question would remain whether the student has been able to assimilate the process, or the student may assume to be able to

connect to the process only if similar such other circumstances occur. As the process is paced by

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the teacher's prompts, its translation onto other professional situations remains uncertain.

These two models are a small measure of the diversity in the manner of conducting the studio. Most design studios are conducted as a mix of these two models, with the teachers enforcing authorship or pulling back at specific moments in the studio. This 'diversity of process' has a positive impact on the students' learning by the offering them various ways of maneuvering towards a design action. Educational institutions will most likely seek to show both these paths to the students. This idea is compatible with the idea of learning institutions being locations of diversity of thoughts. Given that 'what students learn is inextricably embedded in how they learn' (Laurillard & McAndrew, 2002) the process by which the learning is provided has a significant impact on their ability to learn and retain. In design, considering the high degree of subjective and qualitative value, forming personal values comes from first hand

observation. The diversity contributes to the forming of these values and orientations.

Assuming the design studio to be the location of a constructivist approach to learning, the teacher inevitably becomes highly involved in facilitating appropriate actions and constructing situations to enable the student to develop their competencies. Here, the diversity of processes is vital to actively support deep learning and provide opportunities to practice thinking skills. The students learn to evaluate and filter aspects of the project by critical analysis, reflect upon the problem on hand, abstract the most essential and relevant aspects and further interpret the program. They reveal the knowledge by the doing and through their action. In such a scenario, the more they are instructed on how to do, the less likely they will retain the knowledge of the process, and more likely only the product that they have created. However, it is quite a fine line between allowing the students possibilities of self-discoveries that reflect in their work and having to respond to the deadlines of a semester that eventually translate into professional deadlines.

Open-ended Process

Teaching an architectural design studio offers multiple challenges to the professional. At the larger level, it asks the questions of what is to be taught. That question articulates the vision of the institution and the correspondence of design teaching to that vision. At the level of detail, it can ask the questions of how is it to be taught. In this, it builds into itself the questions of the skills of the teacher, their innate ability to hold

conversations and dialogue and be the bridge between the external world and the student.

Teaching architectural design is a difficult process as it includes a definitive product and yet is an open-ended process. How to facilitate the students into an open-ended learning process when they come from a very strong and overwhelming structure of education that

The role of the teacher and their contribution to the learning the studio process is very high. It requires continuous and regular engagement with the task. They have to oscillate between mentoring and tutoring, change paths, restructure and revise while the studio is going along based on the capabilities of individual batches. This is one of the most difficult challenges of a design studio teaching.

has a distinct culmination and works with the idea of completion? Paradoxically, each studio demands from the students a definite product that is meant to be a finale of the learning of the three/ four months. This difference is a paradigm shift in the manner in which knowledge is accessed and assimilated. The role of the teacher and their contribution to the learning the studio process is very high. It requires continuous and regular engagement with the task. They have to oscillate between mentoring and tutoring, change paths, restructure and revise while the studio is going along based on the capabilities of individual batches. This is one of the most difficult challenges of a design studio teaching.

On the one hand, based on the structure and organization of the institute, each studio has a culmination, which is a design project. It is very important that students complete the task because the profession will demand deliverables and students have to be equipped with this competence. On the other hand, learning design is a continuous process. It is largely open-ended even within the profession. Architects that are able to learn continuously from each project, who bring that learning into the next project can contribute to the profession with a higher degree of achievement and quality. New developments are now the

For such a dialogue to occur, there is a need to shift the terminology from absolutes to open-ended descriptions. The pitfalls of such a dialogue, however, are the lack of any definitiveness and hence, the inability of the student to claim and rationalize the design. It also encourages a lot of jargon without the associated representative visual communication.

norm, and the profession needs to respond to them. A training to continuously assimilate, learn and apply is the need of contemporary society. The present pace and dynamic evolution of the world have created a condition of uncertainty. If the students are able to understand that each term is one point/ one stop in the journey that is a continuous process, they are able to handle and adapt to the variations, diversity and plurality of the profession. Seeking new and relevant ideas for projects and preparing oneself to deal with new issues have become imperative. Adaptation is the key, without loss of authentic values and integrity.

One of the ways to achieve this is to avoid absolutes, particularly, in terms of rights and wrongs. If teachers are habituated in informing the student that their work is wrong or right, the students are most likely to imagine the design process as something that has a definitive conclusion achieved with the approval of the teacher. It also inculcates in them the need for seeking approval from an external agency rather than their own process. Alternatively, if the dialogue in the studio is based on asking the students about the framework of their decisions, the ability of the design to achieve the set parameters, it tends to encourage the student to seek options, to explore and experiment. The skill of rigorous reasoning is inculcated. The studio space then, becomes a space for a dialogue between the teacher and the student. Often there is a fear amongst teachers of a loss of authority when there is a dialogue. It restructures the power equation in the studio, giving the student a higher degree of power. Most confident and secure teachers will encourage this redistribution of power as a welcome step in the learning process. It challenges the teacher and sets up the potential to raise the benchmarks.

For such a dialogue to occur, there is a need to shift the terminology from absolutes to open-ended descriptions. The pitfalls of such a dialogue, however, are the lack of any definitiveness and hence, the inability of the student to claim and rationalize the design. It also encourages a lot of jargon without the associated representative visual communication. It incites a high degree of ambiguity at its worst. Because of the incompleteness of the project, the teacher is

insecure about the outcome and hence tends to increase authorship in cases where the students seem to lag behind the anticipated outcomes. It becomes the responsibility of the teacher to manage these pitfalls to generate a constructive dialogue in the class.

Conclusion

Thus, as we can see, the teaching of design studios is not simply a matter of conveying our own knowledge to the students. It is not enough to possess a certain degree of information but also to be able to construct ways of communicating to the students for their benefit. The act of teaching needs to encourage the students to fulfill their imaginations with adequate support to process it into feasible constructs. Teaching is a demanding act, emotionally and physically. But then, as Palmer (1994) mentions, “Good teaching is an act of generosity, a whim of the wanton muse, a craft that may grow with practice, and always risky business. It is, to speak plainly, a maddening mystery.” To me it is the mystery part that needs unraveling through more communication amongst teachers as apprentices to learn from each other and from other’s experiences. It also hopes to establish a dialogue, create a space for discussions and encourage peer sharing and learning. Experience is a great teacher and that can be learnt and shared from. ■

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