

A Beginner's Mind

PROCEEDINGS
21st National Conference
on the Beginning Design Student

Stephen Temple, editor

Conference held at the
College of Architecture
The University of Texas at San Antonio
24-26 February 2005

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Situating Beginnings
Questioning Representation
Alternative Educations
Abstractions and Conceptions
Developing Beginnings
Pedagogical Constructions
Primary Contexts
Informing Beginnings
Educational Pedagogies
Analog / Digital Beginnings
Curriculum and Continuity
Interdisciplinary Curricula
Beginnings
Design / Build
Cultural Pluralities
Contentions
Revisions
Projections

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A Beginner's Mind

The 21st National Conference on the Beginning Design Student

The National Conference on the Beginning Design Student is an annual conference hosted by Architecture school and schools of allied disciplines in the Western Hemisphere. The conference produces a refereed, peer-reviewed publication in the form of proceedings. Papers accepted for publication in the Proceedings of the 21st National Conference on the Beginning Design Student were selected by a triple-blind peer review at a rate of 62 papers accepted of 165 submitted for review. Printed proceedings designed, arranged, and printed by Stephen Temple. Papers written and edited by each author.

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A Beginner's Mind

The 21st National Conference on the Beginning Design Student

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Developing A Beginner's Mind

STEPHEN TEMPLE

Chair of the 21st National Conference on the Beginning Design Student

Most design faculty were educated to be designers, not teachers. Consequently, there is a tendency for architectural design instructors to resort to “teaching as one has been taught,” frequently with little knowledge of, experience with, or insight into any guiding or coherent approach to education theory, education psychology, theories of learning, instructional philosophy, or curricular development. There is also a tendency to believe we know our students and know what is best for them because, after all, we are ourselves capable designers and our own beginning design experience resulted in our success, so our educations must be worthy of emulation. With the best of intentions, our own educational experiences become interpreted into a teaching model that is at best a facsimile of the pedagogy of our remembrances. In this way, “teaching as one has been taught,” functions outside of formal teaching or learning theory as a kind of *folk practice*. As happens in folk traditions, each successive generation evolves the model pedagogy by molding and remolding it to fit into a differing context. Forces from outside our own educational experiences, such as accreditation requirements, faculty and student attitudes, curricular structures, university fit, and ideological shifts, often become reconciled within pedagogical development akin to the slowly grinding gears of a vast machine. Almost in spite of the educational task at hand, educational issues from the disciplines of education theory, education psychology, theories of learning, or instructional philosophy develop only marginal relationship or remain externalized. Yet the beginning student new to the discipline of design, a “student in transition”¹ is foremost in need of educational models that can reach, inspire, provoke, and, most importantly, allow them to make emotive decisions, not just about the discipline of design, but about the very act of *being educated*.²

The question of “A Beginner’s Mind” is put forward not merely as an inquiry into the constitution of the beginning design student (intellectual and otherwise) but also as an examination of the practice of engaging students in becoming active in their own education, both specific to the design disciplines of the building arts and with respect to engagement in developing their own educational experience. Learning at the foundation level (let alone learning to *design*) involves issues related specifically to perceptions, processes, and definitions but also necessitates the formation of habits of mind, habits of hand, habits of reflection, and habits of communication, as a basis for continued learning, exploration, and development. Beginning design pedagogy is at its core an opening of possibilities for design learning for the learner, the teacher, the curriculum, and the environment of design education, the studio. Most beginning design pedagogies are very specific to their respective design disciplines and thus, overlook student capacities for more flexible and broad inquires in which the building arts are but one of many intertwining factors. Education psychology and education theory suggests that learning experiences from across disciplines enable development of fundamental connections as they enmesh with each student’s interests and life experiences.³ For example, raising a cross-disciplinary topic such as sustainability in beginning design curriculum may not mean learning only issues specific to architectural sustainability but learning about it as a conceptual inquiry across all human activity, on a personal, cultural, economic, and historical, as well as

environmental level. These deeper, broader connections allow learning to more readily take hold on a fundamental, neurological level, thus enabling following learning experiences to occur principally on each student's own initiative, as may be relevant to each student's own life experience. This is consistent with findings from research on learning that indicate that learning is a continual experientially developing process, rather than a moment of knowledge.⁴ Thus, beginning design education is significantly more about diversifying exposure and establishing self-initiated inquiry than it is training for discipline specific tasks.

Already consistent with the transformative nature of developmental learning theory is that some design students do, in fact, mature as they progress through successive layers of creative design studio experience. But high attrition rates and low graduation percentages across design programs belie the efficacy of discipline specific teaching traditions.⁵ More actively integrating education psychology into generationally inherited design teaching traditions will not be brought about easily because the conditions and influences of education theory are antithetical to "teaching as one was taught." However, if no longer viewed as "outside" approaches, models of teaching and learning from education theory and educational psychology such as developmental learning, experiential learning, brain-based learning, transformational learning, enactive learning, inquiry learning, and cooperative learning can modify and even impeach imperatives to teaching as a hermetic, discipline specific (*ergo*, "folk") practice. Integrating education theory can influence course, curriculum, and instructional development and more importantly will recognize the transitional nature of the beginning design student to more purposefully enable greater connectedness, responsiveness, and self-initiation in learning.

The Significance of Beginning

A central question of all learning theories is to determine what constitutes a learner and how should this be considered as a function of developing an appropriate beginning pedagogy? A writer always considers who is the intended audience for the written work. If an educator were to consider students as "audience," is there a typical "first year mentality" beginning curricula must address and/or initiate? To what extent should design pedagogy reconcile with the changing and diverse beginning student, especially in light of student misconceptions about design education and design practice? "Who our students are" always and inevitably directly effects our pedagogical decisions, especially given the closeness brought about by the studio classroom itself. To be certain, consideration of a beginner's mind in the form of tailoring a pedagogy for a socioculturally determinate intellectual proclivity raises ethical questions at the same time it opens new possibilities, especially in the name of broader diversity. Can a "beginner's mind," as differentiated by locale, school, life experiences, etc., be defined clearly enough to affect pedagogy or should this best be left to the student body to bring to form? Often, pedagogies intended to exploit or draw out ethnic, regional, or even individual differences in beginning students obscure the intended curricular content by enabling experiences that are too familiar and friendly and, thus, prohibit content from being abstracted from the concreteness of that familiarity. In the other extreme, approaches to learning that begin or develop abstractly often obscure the connectedness necessary to actual learning by creating personal distance that cannot be overcome.

A second issue is the question of the relation of beginning design pedagogy to the structure of the curriculum; should beginning design pedagogy be framed by the remainder of the curriculum or should beginning design pedagogy itself become a germinator of the curriculum structure and content directives? As a question of educational prerogatives, beginning design can "feed" a curriculum or it can "seed" a curriculum. Upper level courses (or rather, every course that follows beginning design) have a curricular agenda that necessitates a particular level of

educational development both with a skill set and as a designer. These attributes are complimentary and mutually developed. However, when out of balance in either direction, the education of a complete designer suffers. Inevitably, a design curriculum will come to stress one over the other. A curriculum that develops its beginning design pedagogy as a feeder course can often become a top down learning system that devalues initial learning experiences and can lapse into a training regimen that subrogates independent, exploratory thinking at the core of creative design activities for simplistic directed skills attainment. The student becomes a mere performer. To the contrary, when beginning design pedagogy is structured to seed the curriculum its purpose is to foment growth of an individual's abilities to reason and make his/her own decisions; in the terminology of Piaget, to structure their own knowledge in continuous interaction with the world. A student thus becomes an active agent of their own actions and reflections on those actions, a trait that is central to creative design thinking. I have generalized the argument of "feed or seed" to make a point - I believe curricular structure must take beginning design seriously or its students become whipsawed by this issue.

Abstract and Concrete Learning

The issue of abstract learning versus concrete learning is central to design studies because buildings themselves are concrete, material realities that, through human experience, become realized by designers through the instrumental use of abstract processes of symbolism, conceptualization, and transfiguration. Much of the work of learning design involves making transformations between concrete and abstract permutations of a building throughout a design process. This issue raises primary questions for beginning design pedagogy. Do the best beginning learning experiences consist of instructional methods that stress abstract mechanisms of instruction or do the best modes of beginning design pedagogy involve holistic approaches employing first-hand or hands-on experiences with actual materials or even full-scale design build? Architectural design readily arises from the constitution of a "maker," from sensitivities gained in manipulating the physical world, by making things. Direct relationship with materials is the basis for this sensitivity, both as a curiosity and as an act of will and desire. This sensitivity must be reborn in beginning design experiences. It must be cultivated, as if watering a seed. When a designer makes a drawing or digital representation it is only through provocation in bodily, material engagement that its significance and use becomes comprehensible. Direct experience, getting one's hands on materials, grounds the abstraction of representational devices. Making decisions about materials is making decisions about design. These are the directives of a design curriculum [and ultimately, practice] where the tangibility of buildings in all their palpable realness is the primary outcome. Pedagogies that stress abstract means of design production are in danger of producing architects that fail to understand the relationship between representation and human experience and hold little value for the realness of the direct experience of the built environment. Beginning design pedagogies cast the die and can provoke lifelong significance of the connection of abstract and concrete means of exploration, creativity, and design.

Pedagogy: Technique or Creativity?

An argument exists as to whether design content for beginning design pedagogy ought to be oriented toward development of technical skills (e.g., graphics, vocabulary, design elements, etc.) or toward development of creative and critical thinking and the motives of designing. Characterized in the extreme, should beginning learning experiences instruct students in the techniques of vocation or should beginning instruction impart a desire for inquiry, self-development, and life-long learning? One rational underlying both positions of this argument is that beginning design learning experiences become paradigms for future learning experiences, literally on a biological level.⁶ A pedagogical orientation to imparting technical skills tends to

corroborate with student preconceptions that learning design is an instrumental activity - that it is principally about vocational preparation and gaining competence and skills that will lead to greater chance for employment after degree acquisition. Student preconceptions are satisfied. But are they not misperceiving the depth of education needed to become a designer? A technique based pedagogy creates difficulties later in the curriculum precisely because it reduces design to chunks of information at the expense of both the engagement in the transformative complexities of designing and the development of design process through this engagement. Individual motives for making design decisions become marginalized in favor of fragmented problem solving tasks about line, or plane, representation, or convention. Impressionable beginning design students, seeking to “define design” for themselves, often mistakenly take reduced, fragmented skill building exercises for a paradigm of design process that will be carried with them well into their education and their careers. Many of the Bauhaus and art school methodologies that are still formative in beginning design pedagogy and curricula have morphed into technically oriented forms of teaching, and as such, have maligned and obfuscated the intentions toward discovery and experimentation that are the core of Bauhaus methodologies.

Design education is developmentally acquired. Design experiences are built upon one another and synthesized into an on-going body of design activity. Design pedagogies oriented toward skill-building restrict creative and critical engagement, and the self-development that grows out of searching for and discovering motives for one’s own design decision-making. Only when self-awareness begins to emerge about process and creative decision-making based upon heuristic testing, self-initiated reflection and criticism, is the student truly engaged in design. And only side by side with this self-development comes integration of and competence with basic technical skills. Creativity and technique are always mutually intertwined. To focus on student development toward either technique or creativity at the exclusion of the other constructs a bias that must be recognized by both students and educator (and in turn brought to bear on the design curriculum). Diminishing student self-development does not correlate with the goals of being educated, especially in the case of architecture, whose practice, by its very nature, incorporates a broad yet deep view of human existence - with the intention of furthering this breadth and depth.

The pedagogical opposition between technique and creativity raises the question of the specificity of architectural content for beginning design pedagogy. Beginning design programs that derive teaching methods from Bauhaus or art school pedagogies are often criticized for *seeming* to deflect or delay specifically architectural content. In opposition are architectural pedagogies that begin with “full-blown architecture” design projects. Although beginning with “full-blown architecture” projects correlates with typical student preconceptions of what design school should be, beginning with these kinds of design projects produces the deleterious effect of throwing students into content far beyond their present learning abilities (e.g., abilities include abstract thinking like conceptualizing, critical thinking, and creative thinking; etc.), or skill levels (e.g., drawing and visualizing; representation; understanding of abstraction, etc.). The resulting experience is so abstracted from “what they think they know” from their life experiences that most become immersed in a primal disorientation from which they will never productively emerge during their education or even their careers. Low graduation rates attest to the fact that the small percentage of students that emerge productively from this experience in later studios do so either through sheer tenacity or because of an affluent background in which the complexity necessary to address a full-blown architectural design challenge was already part of their life experiences. Clearly, architectural design education should not be aimed toward only those who are from affluence or who are curriculum “survivors.”⁷ In contrast to the awkward beginning design experience presented in “full-blown architecture” projects, beginning design projects that are analogous to building design offer an alternate. Analogous projects offer illumination of architectural design decision-making as a construct of varieties of experiences, with connections

to “full-blown architecture” occurring either as conceptions or as potentials to be realized, much like a seed already contains the mature tree.

Learning Teaching

The purpose of the 21st National Conference theme, “A Beginner’s Mind,” was to raise questions, not develop answers. In a discipline where creativity is primary, there is nothing more dangerous than educators who project conviction that they know what they are doing. My teaching is completely different from how I was taught. I teach from the perspective of student learning, guided, in part, by empathy with the disorienting situation of the beginning design student. Education theory and education psychology guide another part. On-going curiosity about and critical judgment of my own experience in the classroom, first as a student, then as a teacher, and as a colleague to other teachers, causes me to constantly re-think and modify my approach to the classroom, to the design studio, to the students, and to learning itself. My teaching has been influenced by the introspective and critical thinking of design teachers like Jon Lang, John Zeisel, Neil Leach, Peter Rowe, Herman Hertzberger, Simon Unwin, Seymour Papert, and Peter Zumthor. But I have also and maybe more profoundly been caused to reform the way I teach by the writings of theorists, Jean Piaget, John Dewey, William James, Jerome Bruner, David Kolb, Ellen Langer, and Howard Gardner, among others. But the most important influences on my teaching have been the relationships I have forged with other teachers, both in architecture and other disciplines, and with my students. I try to be responsive, and I try to care about students and what they are learning and not learning, not only paternalistically and as an instructor, but also as someone who is there with them.

In the classroom, I try never to do the same thing twice in the same way but to be responsive to the community of students. Each successive class offers a different “set” of students with an independent personality and thirst for learning design. I prefer to tap into their curiosity as students because curiosity is the antidote of arrogance, and many students, while not outrightly arrogant, bring to the classroom an attitude that is not their own. Curiosity, however is uniquely your own, and tapping into it breeds inquiry and depth. I always bring to the classroom the notion that the study of architecture is often a discovery and study of the self that, while it leads to maturation, also leads to confusion and the need for redefinition. If discovery is to be at the root of design learning, heuristic methods must be employed whenever possible, to help develop and encourage cultivation of each student's own design methodologies and inquires that are mindful of both creative processes and cultural traditions of learning to design.

Probably most central to design teaching pedagogy is to help students to cultivate creative thinking, which means most simply, thinking for themselves by raising questions and making inventive, yet sound decisions that can materialize ideas. To paraphrase architect, Peter Zumthor, what is to be taught is the asking of questions, because design is itself a questioning. And the first thing a student of architecture can concretely question is what both the making and the experience of architecture starts with - materials:

All design work starts from the premise of this physical, objective sensuousness of architecture, of its materials. To experience architecture in a concrete way means to touch, see, hear, and smell it. To discover and consciously work with these qualities - these are the themes of our teaching.

- Peter Zumthor ⁸

This can only happen through the direct engagement necessary in making and experiencing making. Learning about materials is learning about design. Making things is itself,

questioning. I believe that the experience of a maker is at the root of architecture and therefore, of learning to design. Beginning to learn to be a designer of buildings is built upon this. Abstract learning and learning abstractly is grounded in the concreteness of making. The abstraction of drawing, analyzing, diagramming, theory, the virtual, and the density of critique can only be reliably built upon the direct, physical, objective experience of materials. Education psychology holds that beginning learning experiences have the best chance for success when structured in relation to the learning experiences of the whole curriculum. A question that must be addressed by all design curricula is this: Is beginning design merely a training ground or are beginning design learning experiences best as germinators of the remaining design curriculum, as a seed planted grows into a mature tree? Beginning design pedagogy must address what it means *to begin* - to be at the beginning of the development of learning to learn. Only then can it address what it means to begin to learn to design.

References

1. "Students in transition" is an apt term that describes the educational situation of beginning students as used by the National Resource Center for the First Year Experience & Students in Transition, located at the University of South Carolina.
2. Leamnsnson. Robert. *Thinking about Teaching and Learning: Developing Habits of Learning with First Year College and University Students*. Stylus Publishing, LLC 1999. Leamnsnson has built a case for strong consideration of biological and affective issues on educational efficacy.
3. Leamnsnson, 1999.
4. Piaget, Jean, "Piaget's Theory." *Handbook of Child Psychology*, Vol 1. P. Mussen, ed., Wiley, New York, 1983; Kolb, David A. *Experiential Learning: Experience as the Source of Learning and Development*, Prentice Hall, Englewood Cliffs NJ 1984; Caine, Renate Nummela, and Geoffrey Caine. *Making Connections: Teaching and the Human Brain*, Association for Supervision and Curriculum development, Alexandria, VA, 1991; and Jensen, Eric. *Brain-Based Learning*. Association for Supervision and Curriculum Development, Alexandria, Va., 2000.
5. *AIAS Studio Culture Task Force*. "The Redesign of the Studio Culture: A Report of the AIAS Studio Culture Task Force," American Institute of Architecture Students. Washington, DC. 2002. The recent studio culture initiative by the AIAS, in a naive yet insidiously precise manner, attests to and questions the perception of the initiation and survivor nature of traditional architectural pedagogy and curricula.
6. Leamnsnson, 1999; Caine and Caine, 1991; Jensen, 2000.
7. *AIAS Studio Culture Task Force*. "The Redesign of the Studio Culture: A Report of the AIAS Studio Culture Task Force," American Institute of Architecture Students. Washington, DC. 2002.
8. Zumthor, Peter. *Thinking Architecture*. Lars Muller Publishers, Germany. 1998.

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