Preface

The processes of design frequently are perceived as a mystery to those new to designing; the quest of design is to manifest both the known and the unknown while giving form to ambiguity and order to the unstructured. With more than seventeen years teaching undergraduate students in beginning design, I often have witnessed the confusion of beginning. How to begin? The blank sheet of paper is always an imposing starting point. The sum of experiences of the world as already-completed objects and environments seem whole and clear until examined by having to design them. The idea that buildings convey meaning seems to rise too abruptly. Design processes can seem abstract and analytical, and the idea of designing through iterations in the context of critical discussions (a new way of speaking!) can be intimidating to the point of stifling activity. Geometries offer a hint of substance, but do not fulfill what seems to be the hidden promise of design because thinking through geometry is a step away from reality. Distancing from the world, as required of design activity, is not a mode of activity to which beginning designers are accustomed. With limited design experiences, there is little basis of comparison for design process to other aspects of experience. Beginning designers want to work instead from direct connection to the world because this intimacy offers grounds for inquiry. Direct experiences like putting hands on materials, working full scale, and deciding about construction and joinery enable connectedness to working processes that thinking alone through abstraction and analysis only seem to obscure.

A central purpose of this book is to support beginning design education methodologies that develop direct experiences of our physicality in the world as a basis for building abstract design intelligence. For architects and designers, abstraction must inevitably account for the physicality that is the designed environment itself, the heart of their work, while recognizing that architectural concepts are conveyed to an experiencing occupant primarily through the perception of a building's material configurations and spatial presence. In so doing, these physical aspects can ground abstract ideas and give body to otherwise formless conceptual

representations. A description of human experience that originates in the *sensorium* of the physical world does not let this origin vanish or drop from significance once the mind forms representations.[1] Continual reconstruction of neurological pathways during learning, as pointed out in brain-based learning models, testifies to the continual and necessary contact of the nervous system with the physical world.[2]

I have been using full scale material projects in beginning design education as a university professor in architecture and interior design programs, and have become convinced that beginning learning experiences where content raised, selected, and/or discovered within direct experience as the basis for abstraction gives students greater command of initiating their own learning. Dialog with oneself through activities such as decision-making, trial-making, self-critique, material exploration, and process selection are benchmarks of self-initiated learning. An instructor's role thereafter becomes responsive rather than formulaic—a partner with students rather than an omnipotent and distant "master." A student's role is then alleviated from looking for "what the teacher wants" and instead toward looking for what he/she can discover, think about, and take action upon—all actions of a designer. A structure where beginning designers make their own direct inquiries at the outset of design education sets a pattern for strong independent development in later studio education while dynamically inter-connecting to the relevance of everyday experience in the world. Moreover, explicit engagement in the self-initiated design inquiries of direct engagement in making things grounds the complexities of critical action, observations, and reflections, allowing students to construct for themselves a dynamic process of learning and doing that can lead to a more holistic designed environment.

Beginning designers must recognize that they are "in transition," transforming in sometimes subtle ways that are ultimately and optimally, almost solely up to them. Sometimes this means that they are primarily engaged in learning how to become students of design, an activity that involves learning how to navigate, not only the act of learning, but also other processes connected with entry into a new kind of adult education, as well as the greater university environment (if that is where design courses occur). Learning how to become a student of design is especially challenging because designing tends to cause questioning of worldview

and sense of place in the world. The classroom of designed objects surrounds us everywhere. Although some "transition" is inevitably within the social sphere, much of the transformation that needs to take place is intellectual. This can be stated most clearly by simply saying, to design requires that you must learn to take yourself seriously, as a learner and as a doer. The degree of personal engagement is critical. But the social system of "studio culture" will also become present, formally and informally. Fortunately, most beginning design studio courses develop the transformation of students with a faculty member in active communication with students, thus allowing design students to operate in an environment where personal transformation is not only recognized, but also treated with empathy.

This book does not present explicit lessons in matters beginning designers consistently "believe they must come to know." Exacting lessons that belong to the actual practice of design, geometry, drawing methods, or other tightly drawn out matters are left to the details of classroom projects. Instead, this book acts as a companion to thought and reflection as one tangles with the early experiences of becoming a designer. To move beyond the novice stage must happen by realizing an inner volition due to one's own inquiries and efforts.[3] Chapters support the notion that learning and self-transformation come from within and, at its greatest effectiveness, beginning design curriculum and instruction enables independent motivation and sincere questioning within each beginning designer.[4] Thus, this book presents itself as a door opening. To pass through that door, individual engagement must penetrate, develop structure, and construct detail for inquires raised by each chapter. Beginning design experiences, if they are to be of value, must provoke "urges to inquiry" toward the formulation of a body of thought and practice, not just for the beginning designer, but also for anyone interested in design as an act of constructing relationships between ideas and their materialization.

A Note to Beginning Designers

As a new student of design some thirty–five years ago, I vividly recall my own confusing reaction to design projects as well as confusion about the role of the learning institution in helping me to learn design. Some things I know now that would have helped me then are written in the remainder

of this paragraph.[5] Design faculty do not intend to confuse you or withhold anything from you. They are there to assist you in your own learning. Learning, however, is an interactive process. Situations are constructed to challenge and push your abilities. Ambiguity is a primary aspect of creativity and what you must learn to grapple with and ultimately, accept. All information will never exist within a project statement, which is purposeful, as you are to discover and complete it through your design decision making. If you are confused or do not understand, you must first seek your own understanding. Your instructor's ability to help is dependent on dialog between instructor and student. Waiting or being unwilling to express your concern does not help you construct your own learning environment. At its essence, instruction is principally the facilitation of learning. Learning must inevitably be realized independently within your own sense of wonderment, inquiry, investigation, experimentation, and discovery. Be reminded that: Truth is the most powerful concept in the world; Criticism is the highest form of praise; A person can not do anything without a theory; Design is about possibility; The most important activity instructors do in the classroom is facilitate learning.

Notes

1. Pallasmaa, Juhani. *Eyes of the Skin: Architecture and the Senses.* West Sussex, England: John Wiley and Sons. 2005.
2. Jenson, Eric. *Brain-based Learning.* Alexandria, VA: Association for Supervision and Curriculum Development. 2000. See also, Leamnson, Robert. *Thinking about Teaching and Learning: Developing Habits of Learning with First Year College and University Students.* Sterling, VA: Stylus Publishing. 1999.
3. Skipper, Tracy L. *Student Development in the First College Year: A Primer for College Educators.* University of South Carolina, Columbia SC: National Resource Center for The First-Year Experience and Students in Transition. 2005.
4. Tomporowski, Philip D. *The Psychology of Skill.* New York: Praeger. 2003.
5. Portions of this statement were originally developed by Professor David Matthews and myself while teaching at the University of North Carolina Greensboro. 1998.