

UNSTAKED TERRITORY: Frontiers of Beginning Design

Proceedings of the 19th National Conference on the Beginning
Design Student, Oklahoma State University, Stillwater, Oklahoma
April 3-5, 2003



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Challenging The Boundaries I
Challenging The Boundaries II
Integrating The Boundaries
Obscuring The Boundaries
Various Terrains
Initial Terrain

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Intuition

ELIZABETH DANZE, University of Texas at Austin

Lit with thoughtful narrow light
Wordless meanings spark insight

Descending to the lips and tongue
Use hands and eyes until made - One.

Anonymous

Most beginning design students are in a period of great self-discovery – socially, intellectually and artistically. Among these, artistry is least analyzed because it is essentially, intractably, and subjectively intuitive, and the aesthetic sense is elusive, it penetrates to a reality that is beyond our normal sense perception. The intuitive is seen as mysterious and hypernatural. The relationship, or rather what seemingly might exist as a relationship, between explicit knowledge and implicit competence is elusive. Yet, in good design generally, and in buildings we admire and seek to understand, there is evidence of the unexplained, the elusive, and the unconscious at work.

Etymologically, intuition is derived from the Latin verb *intueri*, which means to look upon. The idea of looking or seeing is intrinsic in the origins of the word. *Webster's Ninth New Collegiate Dictionary* defines intuition as “immediate apprehension or cognition; knowledge or conviction gained by intuition; the power or faculty of attaining to direct knowledge or cognition without evident rational thought and interference; quick and ready insight.”¹ Immediacy and spontaneity are fundamental elements of any definition of intuition. In their book, *Awakening the Inner Eye: Intuition in Education*, Nel Noddings and Paul Shore define intuition as “the function that connects objects directly in phenomena. This direct contact yields something we might call ‘knowledge.’”² Carl Jung, in *Psychological Types*, alleges that intuition stems from the unconscious and describes it as being one of four basic mental functions. It is a way of perceiving information in a holistic way, via the unconscious mind, which is in opposition to sensing, which perceives information through the five senses. Jung found it is through the habitual prevalence of one of these functions (thinking, feeling, sensing, and intuiting) which produces a corresponding personality ‘type’. (Jung believed that everyone can use all four functions, but by nature of their polarity, not at the same time. For Jung, as thinking is opposite to feeling and sensing is opposed to intuition, a person cannot be using sensing and intuition at the same time). People then have either an inner or outer orientation to the world around them. He believed a teacher needed to be particularly cognizant of those students who are more inwardly oriented and work with them to draw out creative responses from them.³ Eric Berne, in *Intuition and Ego States: the Origins of Transactional Analysis*, tells us that intuition is a perception that first occurs in the unconscious and is then brought out into a conscious state. ⁴

This innate sense creates the necessity to help acknowledge the role of intuition early in a student's work so as to begin to recognize, utilize and appreciate the role of the subjective in design. There is of course the problem of the solely subjective, the autobiographical, but this is not the same as the intuitive. By being open to their intuition, in time it is hoped students will mature with a facility for design insight which is essentially the sudden resolution of disparate elements into a harmonious and integrated, artfully conceived whole. This will enable them to enlist this powerful complimentary design tool in their future work. The cultivation of intuition will also encourage confidence and the pursuit of creativity, an enormous consequence, at a time when students have a minimum palette of 'skills'.

One of the most crucial skills to develop as a designer is the ability to ask meaningful and insightful *questions* of any given project. To seek out and ask is part of the designer's responsibility to the project and yet how do beginning designers know where to look and what to ask? Most questions and answers in the beginning can rely quite credibly on intuitive urges if designers are encouraged to do so. Intuition here is a direct or immediate knowledge without consciousness of having engaged in preliminary or preparatory thinking. There is of course the untangling of what is 'truly' known as against what is thought to be known - but may actually be only an assumed convention. With this, the student asks whether intuition can be trusted to be true and competent. To be sure this begins the student's initial work process of swaying back and forth between testing and questioning, using both non-empirical data and intuition in creating and executing. The student then is engaging in judgment without preliminary cognition but this judgment is followed by careful and numerous repeated analysis.

"The clear, logical development of a work of architecture depends on rational and objective criteria. When I permit subjective and unconsidered ideas to intervene in the object course of the design process, I acknowledge the significance of personal feelings in my work. The design process is based on a constant interplay of feeling and reason. The feelings, preferences, longings and desires that emerge and demand to be given a form must be controlled by critical powers of reasoning, but it is our feelings that tell us whether abstract considerations really ring true. To a large degree, designing is based on understanding and establishing systems of order. Yet I believe the essential substance of the architecture we seek proceeds from feeling and insight. Precious moments of intuition result from patient work. With the sudden emergence of an inner image, a new line in a drawing, the whole design changes and is newly formulated within a fraction of a second. It is as if a powerful drug were suddenly taking effect." – Peter Zumthor 5

Accepting and encouraging the use of intuitive abilities that will grow with and within the analytical design process is helpful in integrating what will become increasingly more complex design challenges. The seeking of insight, as a design obligation, in directions simultaneously both internal and external, is an undeniable requisite for understanding architecture as both art and science. Insight or intuition is self evidenced, a 'hunch' by which a conclusion is conceived and felt to be suddenly correct in advance of any proof. Scientific insight called hypothesis is exactly this. Hypothesis must precede the experiments that establish the proofs. The architect or artist must first hypothesize (intuit)

and then test that insight by reference to its applicability to an aesthetic test and a test against discovery. In architecture this is especially so because of the necessity to analyze an intended useful result through formative design processes to avoid the inclusion of untested preconceived ideas that will thwart the process of discovery. The intuitive should apply before and after discovery. With this, one would look at both generative as well as resultant qualities without preconceptions, and would seek to better understand the relationship between the intuitively revealed and the rationally reasoned. If it is as Sir Christopher Wren says, that science is the philosophy of experimentation, 6 then art is the philosophy of intuition, and architecture is the combining philosophy.

Beginning studios often follow a linear course of exercises intended to demonstrate particular fundamental design concepts such as composition, form, structure, etc. This course material is usually highly coordinated and highly prescriptive in content and usually very tangible in nature. And because these fundamental concepts are presented in a linear sequence, each seemingly being a prerequisite to the other, it is implied that the design process is also linear. By this linear 'method' any design solution will seem to emanate from the process that will hopefully accumulate virtues and eliminate weaknesses, and will be clearly and remarkably manifested at its end- much like information from a word processor is printed sequentially page by page, until it is finally manifest in the printer as a complete manuscript. But obviously the design 'process' itself cannot be predictive of a desired result, because it has no subjective, intuitive nature. The writer may not produce prose but a comic book - or then again, perhaps a collection of the most beautiful poems - regardless of the process. The process is useful as an organized way to impart crucial information and necessary practical techniques, but it is not intended to inspire. That must come from the mentor / student relationship in the beginning and from the motivated designer thereafter. The process must be formulated in a way to *allow* for inspired results through the free accessing of a designer's intuitive abilities. On the other hand, a particular design process could and ought to inspire the student creator. The process bears the burden then of being simultaneously inspiring and imbued with qualities allowing for insight, inquiry, and inquisitiveness.

Beginning students are already naturally searching, eager to accept new challenges and looking to understand how things work, and how they individually can contribute their abilities to solutions by the application of skills learned prior to their point of entry into architecture school. The architectural program is where they hope to apply themselves, with all their strengths. But heretofore they possessed qualities that were mostly of rationality, of reason and learning, strengths at which they have excelled.

Now they will find themselves in an environment with which they are probably mostly unfamiliar yet it is an environment of their own. They will find themselves, in their subjective self, immersed in the challenges of design. They must be made confident, to know their efforts can be as rich and promising of creativity as any in the rapidly unfolding world about them. But to do that they must first learn to cultivate and tap that subjective strength that is also theirs, hidden in the intuitive. The early and repeated investment by students in the formulating of the projects to be solved is the first step in allowing them to own and claim the entire design process. That is what they must bring to the studio to produce work that exemplifies their interest, insight, desire or longing, a feeling or an urge that is intuitively uniquely theirs.

The first years of an architectural education provide students the opportunity to experience what is around them in ways that are particular to architecture and naturally unlike any they had previously experienced. If we think of architecture as a kind of applied art then the training of eye, hand and mind through architectural experience, is personal and layered onto all previous experiences. This overlap is paramount in the development of a design sensitivity that is personal and yet communicable through an architecture that will be universally experienced.

James Corner, in *The Agency of Mapping* refers to Jean Piaget, regarding the development of spatial perception in youth: “Geometrical intuition is essentially active in character. It consists primarily of virtual actions, abridgements or schemata of past or anticipatory schemata of future actions, and if the action itself is inadequate, intuition breaks down.” In describing the mental imaging of various relational processes, such as cutting, folding, rotating and enlarging, Piaget writes: “Spatial concepts can only effectively predict these results by becoming active themselves, by operating on physical objects, and not simply evoking memory images of them. To arrange objects mentally is not merely to imagine a series of things already set in order, nor even to imagine the action of arranging them. It means arranging the series just as positively and actively as if the action were physical.” Corner contends, “Action precedes conceptions; order is the outcome of the act of ordering”. It is fitting that we would look to particular ways of mapping as a parallel to cognitive understanding. The dream-like drift that Guy Debord describes in the making of his series of maps or ‘psycho-geographic guides’ of Paris. These maps were made from the aimless walking around the streets and alleys of the city. They describe his subjectivity, desires and perceptions and are made physical in his maps. As Corner points out, “what is interesting is the way in which the contingent, the ephemeral, the vague, fugitive eventfulness of spatial experience becomes foregrounded”. 7

Design sensitivity is itself an expressed insight into the psychological lift and comfort derived from an appropriate relatedness of spatial parts designed to properly accommodate the circumstances of their use within the context of a harmonious totality. The intuitive sensitivity that accomplishes such results gains wide and instant receptivity once it is evidenced in architectural design. We all become enthusiastic beginners once again when we are exposed to harmonious totality.

Harwell Hamilton Harris in a faculty address acknowledges the quality of natural receptiveness in beginning students.

It is to be observed that the student reaches the peak of his enthusiasm in the sophomore and junior years. From then it declines until, in the fifth year, he is ready for almost any compromise in order to get out of school. His natural receptiveness is either mutilated or buried. It will take him years to reestablish it as one of his most valuable gifts. - Harwell Hamilton Harris 8

By compromise Dean Harris is undoubtedly thinking students are willing to drop their design freedom, their spontaneity, content to follow the habitual, what has gone before and re-apply the design signature of their mentors as evidenced in the published or existing built environment. He urges them to uphold their personal composure and unique creative efforts, to be receptive of what is meaningful to the self. Receptiveness becomes discovery when it has meaning to the self. This natural “receptiveness” referred to by Dean

Harris, could include openness to the external in the material sphere as well as to the internal stimuli and knowledge. The psychoanalytic community might refer to the third eye here, the eye focused on self- understanding as a means of insight and discovery leading ultimately to the act of creating. Understanding the self is a settled humble confidence. Humble because it acknowledges there is yet more to experience and learn, and confident in person and thought that with experience and learning, creativity will emanate.

Today, I am aware that my work as an architect is largely a quest for this early passion, this obsession, and an attempt to understand it better and to refine it. And when I reflect on whether I have since added new images and passions to the old ones, and whether I have learned something in my training and practice, I realize that in some way I seem always to have known the intuitive core of new discoveries. – Peter Zumthor 9

How is a beginning student to cultivate this knowing? A balance is to be struck between the role of the conscious and unconscious. There might assume to be three thinking processes and here we can follow each of the three strains. Any thinking process might begin with reason, intuition or reflection. All go through *knowledge* either theoretical, contextual or action based and finally to practice, planning or review.¹⁰ The role of the teacher is multivalent as well. To begin with, in the teaching environment, the way of knowing that is most conducive to idea generation is leisurely, poetic and unpremeditated. Intuitive perception has been shown to be most easily accessed when (1) one is relaxed; (2) able to suspend reality; (3) allowed to respond to a task based on guess, vague cues, memory impressions, subjective evaluations; and (4) stimuli are unstructured and unclear. ¹¹ Within this, the role of the teacher sits in several domains which might be used to help classify the dimensions of a teacher's activities. Interestingly, it is useful to think of them as parallel to some of the classifications given to nursing competence. They include but are not limited to: the helping role, the coaching function, the diagnostic and monitoring function and the effective management of rapidly changing situations. The teacher, through these roles must first believe and then communicate to the student, trusting the validity of ambiguity and encouraging the philosophy of more than one way of knowing. Students should be encouraged to assess the available objective data alongside the perceptual data furnished by intuition. The power of intuitive judgment as well as problems of acting on feelings alone is revealed as are the harnessing of intuition as the engine of rational thought. Lastly, the teacher can help students focus on pattern recognition through encouraging a perspective which emphasizes a holistic view, while not denying parcelization. ¹²

One role of intuition is to prepare action in its conclusive form. There are many kinds of projects and assignments given to beginning design students and in order to encourage inner orientation there are many ways of approaching any assignment. One is the partial reliance on memory. "Memory introduces us to unconscious architecture as does psychoanalysis to unconscious impulses". ¹³ For instance, by asking students to recall very specific moments of their past and to put the sensations or sensual qualities of their remembrances in a drawing or three dimensional models that are spatial, they are compelled to make physical connections to the forgotten, the obscured, the essential, and the intuitive. The memory and the object become the same by distilling, abstracting and

overlapping. This involves the moving in and out of abstraction and concretization. To give form to intuitive knowledge is to make something of it by placing it next to or inside of that knowledge which is explicitly acquired. Analyzing both sets of data simultaneously allows a natural merging and co-mingling. An example is a project given by four, second year studio instructors. The assignment involved looking at several 'fields' in downtown Houston, Texas. By wandering the site, part of a students' analysis was to yield insights and opportunities that could be tested. After analyzing the site by methods of 'drifting' *and* gathering non-empirical data, an initial mapping exercise was meant to reveal latent and emergent characteristics within a particular urban field. The assignment was meant to be both strategic and relational. Strategic because it was impossible to map *all* field conditions so a strategy for selecting combinations of information had to be implemented. It was relational because what was to be mapped was the relationship between information, not the information itself. Thus, the field composite was not to be merely the extrusion of gathered information into three- dimensional form, but the assimilation and synthesis of original data into constructions which reveal or make manifest the invisible qualities of a field. From the start, in wandering the field to making selections about what to map, what to overlap and then finally - modeling the results contained in them the seeds of both implicit and explicit understanding. From here the analysis of the models and drawings could be understood both literally, abstractly or both and imbedded in the work was both the intuitive and the non-intuitive. This straddling of both realms is exciting and motivating to the student and full of further, yet to be realized potential.

When we look at objects or buildings which seem to be at peace within them, our perception becomes calm and dulled. The objects we perceive have no message for us, they are simply there. Our perceptive faculties grow quiet, unprejudiced and unacquisitive. They reach beyond signs and symbol, they are open, empty. It is as if we could see something on which we cannot focus our consciousness. - Peter Zumthor 14

Affirming intuitive knowledge and fostering it directly as a powerful design tool allows direct and open context for the questioning of personal biases and assumptions which all students invariably possess. These can only be augmented or purged by a radical psychological displacement of the self to the extent that the familiar, seen from a new positioning, becomes subject to honest and ruthless questioning and critical reassessment. This is painful to the sincere student but this purge will cause future development and growth. The questioning and then dispelling or expanding on often unconsciously held belief systems, that have surfaced with all their glaring inconsistencies, makes way for a much broader field in which to create. A young designer's progress and work is on the path of becoming authentic, creative and grounded when she is her own greatest and most disparaging critic. The education of an architect, after all, requires a commitment to a life-long search for harmonious totality in each design challenge, through discovery, creativity, and relentless self-criticism of one's own work to reveal the intended essential core - by analysis and intuition.

Notes

1. Webster's Ninth New Collegiate Dictionary (Springfield, Massachusetts: Merriam-Webster, Inc., 1987), p.635.
2. Nel Noddings and P.J. Shore, *Awakening the Inner Eye: Intuition in Education* (New York: Teachers College Press, 1984), p.57.
3. Carl Jung, *Psychological Types* (New York: Pantheon Press, 1923), p.35.
4. Eric Berne, *Intuition and Ego States: The Origins of Transactional Analysis* (San Francisco: TA Press, 1977).
5. Peter Zumthor, *Thinking Architecture* (Baden: Lars Muller Publishers, 1998), p.20.
6. Lisa Jardine, *The Outstanding Life of Sir Christopher Wren* (New York: HarperCollins, 2002).
7. James Corner, "The Agency of Mapping: Speculation, Critique and Invention," in *Mappings*, ed. Denis Cosgrove, (London: Reaktion Books, 1999), p.229.
8. Colin Rowe, *As I was Saying: Recollections and Miscellaneous Essays*, ed. Alexander Caragone, (Cambridge Mass, London England: MIT Press, 1996) p.51.
9. Zumthor, p.35.
10. *The Intuitive Practitioner*, ed. Terry Atkinson and Guy Claxton (Buckingham: Open University Press, 2000), p.7.
11. Tony Bastick, *Intuition: How We Think and Act* (New York: John Wiley & Sons, 1982) p.351.
12. Atkinson and Claxton, p.152-162.
13. Anthony Vidler, *Warped Space* (Cambridge: MIT Press, 2001), p.168.
14. Zumthor, p.17.