

Intuition Stands To Reason¹

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"Man's agreement with architecture is an example of something that stems from intuition..."²

Louis Kahn's theory of *Silence & Light* posits an architecture of intuition. At its essence architecture has a universal or absolute expressive realm founded in the commonality of the human experience. Kahn calls this realm *Silence*, otherwise known as the unconscious. All creative inspiration exists in *Silence* and is brought into *Light* by an intuitive act of the artist. It is this second notion that belongs to the architects' craft and the story of this paper.

Kahn describes the process of realizing a building, which is the craft of architecture, by asserting: "A great building, in my opinion, must begin with the unmeasurable, must go through measurable means when it is being designed, and in the end must be unmeasurable".³ I deduce two things from this statement. First, if architecture is perceived intuitively, then it must begin in intuition. This makes sense considering the physics of a Newtonian universe and the laws of energy conservation. Second, Kahn appreciates that in architectural design "true intuition ultimately stands to reason".⁴ A building on its way from intuition to construction reveals itself as a work of art. *Art* is the transitional step. Rational-

izing the art into material is design. Design is art coming to reason.

The pursuit of design is the lesson from Kahn I tender in studio. The design studio is where critics have the responsibility to teach the design portion of our craft. I define craft in its fullest poetic sense of art, trade, skill, cunning and profession. It is from this point of view that I speak of Kahn's unusual distinction of intuition as craft. Intuition can be regarded as a craft insofar as it identifies the essence of architecture and the necessary giving over of oneself to a transcendental source. It is, then, sensible to formulate a studio that includes this venture.

Dealing in the unconscious is the acceptance of a particular architectural and life philosophy. Kahn articulates a world view in which there is no distinction between life (as it might be lived) and architecture (as it should be practiced). In summary, one can say that:

*By lifting his architecture into the realm of the absolute, Kahn hoped to make a meaningful architecture expressive of the requirements of the human soul (psyche) as well as of human physical necessities. Kahn's aesthetic interest in a language of universal creative power apparently stems in part from a contact early in life, through his mother, with German Romantic thought. The Romantics viewed the poet or the creative artist as the priest like mouthpiece of deity, a doctrine formulated in the late eighteenth and nineteenth centuries from a synthesis of mystical traditions, largely derived from the European Renaissance.*⁵

These romantic foundations are the underpinnings of Kahn's *Silence and Light*. He believed that architecture is responsible to both the conscious (physical necessities) and to the unconscious (the soul). The measurable is fused to the immeasurable to create a world view. Subsequently this role of the artist implies intuition is the action or verb of the creative act. A theory of *Silence and Light* employs the intuition, the artistry, in the architect.

What is the logic of an architecture which presumes *the*

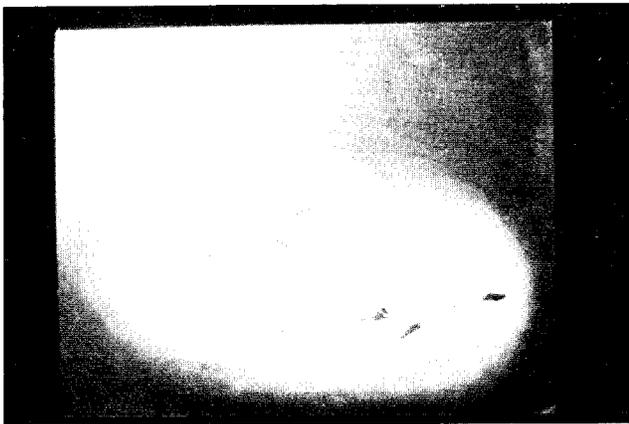


Fig. 1 "To The Fourth Dimension", Doug Stockman's original interpretive drawing (charcoal on illustration board) for a project based on Mussorsky's *Pictures at an Exhibition*.

immeasurable? What is the meaning of implying that the architect practice as an artist? These are not theological questions. The immeasurable, Kahn's *Silence*, exists as the unconscious in the fullest psychological perception. Kahn asserts that the architect is essentially an artist in the service of the human psyche. It is this notion harnested and operating in reverse which defines the architect's craft.

The placement of the unconscious in architectural design is not an assumption. It is a fundamental critique to work inclusive of the human spirit. C.G. Jung argues Man is to be understood as both his conscious and unconscious self. He maintains: "Notwithstanding the fact that I have often been called a philosopher, I am an empiricist and adhere to the phenomenological standpoint."⁶ Jung argues that the unconscious is revealed conscious evidence from which we can deduce dreams. "In other words, there is an unavoidably illimitable and indefinable addition to every personality, because the latter consists of a conscious, observable part which does not contain certain factors whose existence, however, we are forced to assume in order to explain certain observable facts. The unknown factors form what we call the unconscious."⁷ In fact, "...the totality of man [is] the sum total of conscious and unconscious existence".⁸ Hence one can say humans are both physical and psychic existence.

Kahn practically agrees. It is significant that he, as an architect, articulates this psychological view of intuition as the door to the unconscious. His life's inquiry discovers humanities alliance with nature and the source of all creative inspiration. Kahn contends:

Life to me is existence with apsyche; death is existence without the psyche; but both are existence. I think of the psyche as being a kind of prevalence – not a single soul in each of us – but rather a prevalence from which each one of us always borrows apart. This applies to every living thing, be it flower, be it microbe, or be it a man or animal. Every living thing. And I feel that this psyche is made of immeasurable aura, and that physical nature is made of that which lends itself to the measurement. I think the psyche prevails over the entire universe. It demands an instrument of expression which it cannot hope to have in some other area of the universe. I am sure that this very psyche hammers at the door of the sun and says, "Give me an instrument here upon which I can express love, hate, nobility" – all the qualities which are, in my opinion immeasurable."⁹

In other words, our place in nature is in *Light and Silence*. Our life's purpose is to give expression to the *Silence* of the human psyche. The mission of life is to express. To express is to give presence to the *Silence* within oneself. The architect (as an artist) is a particular instrument of the collective psyche coming to presence, that is art. A notion which distinguishes the architect in the artist's role.

The architect as artist is a rational point of view. It is consistent with both psychology's suppositions and the

means of creative insight. Kahn's struggle for a universal language brings to architecture a primary typology: Man exists as both forms of consciousness. An architectural theory which embraces this typology designs for a balanced human experience. Albeit Kahn originates poetry for his own plan, the *Silence and Light* opposition as an arrangement of the world is a sensible basis for architectural design. Precisely because design (the bringing of intuition to reason) is the architect's craft.

The philosophy of *Silence and Light* can be delineated in pairs (fig. 1). The illustration (below) represents my synthesis, but is consistent with the diagrams in Kahn's sketch books. These pairs are not terms in conflict or opposites. Instead these expressions balance across a subconscious connection. This outline can be partitioned into three categories: one, *Silence*, the unconscious, the immeasurable psychic source of all creation; two, *Light*, the measurable, the conscious world where things have presence; and three, "the threshold" where the two forms of consciousness intersect. The third category is key, since this is the place of intuition.

In this context intuition should be understood as being both a noun and a verb. As a noun intuition means a perception, or cognition, of truth or fact, independent of any conscious reasoning. This is the common definition of seeing things in chunks or patterns, which through experience can grow in size and complexity. For the student and ultimately for the architect, this manner of seeing manifests itself as

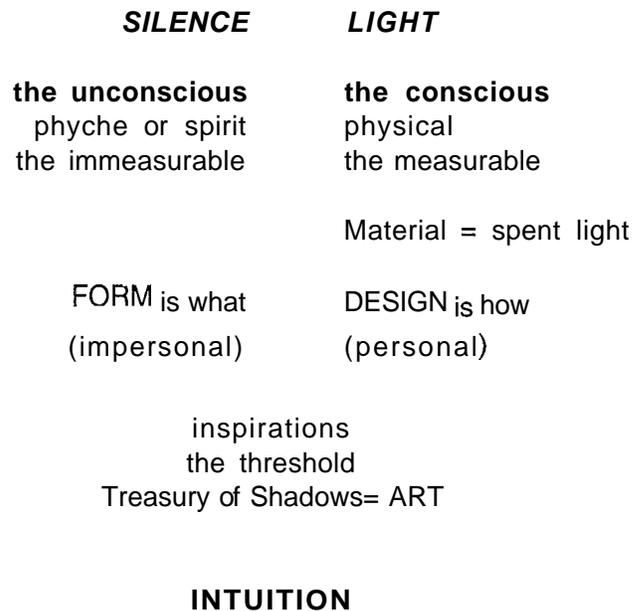


Figure 2: "Silence and Light. Architecture has no presence, music has no presence, I mean, of course, the spirit of architecture and the spirit of music. Music, this sense as in Architecture, favors no style, no method, no technology: this spirit is recognized as Truth. What does exist is a work of architecture or a work of music which the artist offers to his art in the sanctuary of all expression, which I like to call the Treasury of Shadows, lying in ambience, light to silence, silence to light. Light, the giver of presence, casts its shadow which belongs to light. What is made belongs to light and to desire..."¹⁰

form. Intuition is a verb in the axioms of *Silence and Light* as the endeavor which connects the two forms of consciousness. Accordingly originality can only be discovered in the psyche and then only through intuition. This is the art in architectural design. Or categorically:

Between Silence and Light is a threshold over which movement takes place from one to another. The language of this threshold, which Kahn called the Treasury of Shadows, is art. Art is the means whereby something moves from Silence to Light. Thus, if we were to ask where a building or a work of art is before it is brought into existence by the architect or the artist, the answer is that it is in the realm of Silence. The task of the architect is to first bring it from Silence to Light, that is, bring it into Realization, and then bring it from Light into material, that is from Realization into actual building."

The point is that for Kahn it is necessary for the architect to use intuition. Visualize the architect stationed in consciousness (i.e. *Light*) where he is obliged to reach across the threshold to create anew. Anything without presence (the not yet measurable) awaits the architect in *Silence*. This paradigm for the act of creation is not unique. For instance Author Koestler insists: "On the question how the new synthesis comes into being, the evidence indicates that verbal thinking, and conscious thinking in general, plays only a subordinate part in the decisive phase of the creative act..."¹² Though Koestler is ostensibly referring to scientific discovery he supports a belief of intuition as a function. On this message art and science agree.

Intuition functions as a craft in architecture as the aggregate of three abilities: First, the ability to enter the creative state of mind; Second, as truth setting itself free through skilled hands; Third, the careful bringing of intuitive acts to reason. Our design studios are the initiation into this specialized training which ultimately becomes mature with an architect's philosophy and practice.

The ability to enter a creative state of mind means to exploit intuition. Such development begins with an initiation into the ways of design. In this instance the craft of intuition is two fold, the skills of the hands (physical) and skills of insight (psyche). An architecture of infinite intent incorporates architecture's history as a guild. Therefore, the studio critic is responsible for bringing students into a fold of specialized skills and the ways of seeing utilized in designing. Drawing and modeling have within them certain intuitive ingredients so intuition as an independent skill is a small step. Employing intuition is to obtain the mental condition, or time shift, of the right brain experience. In this the critic can assist the initiate. Indeed, intuition is not so much learned as nurtured by confidence.

This practice of initiation recognizes the design studio as a cult experience. The depth of feeling required for truth setting itself free is emotionally challenging. Subsequently

the studio professor, as initiator, is responsible for making a guarded (if not sacred) environment in which the student may explore new feelings. It is my experience that such a safe haven can be achieved through: emphasis on positive criticism; the postponement of critical judgment; the celebration of creativity for its own sake; public debate of individual protests; and at times, defending the studio's work from outside criticism. Generally, the teacher can be persuasive — through prior intuitive experience — in assisting the apprentice to overcome the cultural resistance to create intuitively.¹³ By suspending the student's disbelief the critic can build their confidence. Ultimately, conviction in their own insight is what the initiate must retain. In these situations leadership becomes synonymous with teaching.

In terms of bringing the fruits of intuition, that is art, into reason Kahn declares structure as an ordering principle. Precisely, "Structure is the giver of Light."¹⁴ Here, structure connotes principles of order and logic as well as engineering. The inherent psychic principles in the strength of materials and the static repetition of structural systems is rarely forwarded as a critique of art or intuition. Seen this way structure can be part of the art evolving into reason. Instead of the laws of construction imposing themselves onto the art, art imposes its presence through engineering. Kahn's Kimbell Art Museum is an example. If art is the presence of intuition in *Light*, then structure is the intermediary between art and dimensional form. *The craft of architecture, the pedagogy for the studio, in sequence are intuition: art: structure: presence.*

Considering this sequence, studio projects can offer a process of making which brings the novice consistently in touch with their intuition. Engaging the unconscious is making in the manner of the artist. I mean this precisely in the practice advanced by Kahn. The difficulty is our students have been taught to hold the rational above the intuitive. To the contrary Kahn believes that, "Your intuition is your most exacting sense, it is your most reliable sense"¹⁵ But, reveal-



Fig. 3 "Rimbaud's Bungalow", Sean Zaudke. The original interpretive drawing (charcoal on illustration board) for a project based on Mussorsky's *Pictures at an Exhibition*. Ultimately his program was for a mythic chamber, for a mythic poet, captured somewhere on the ice in the North Sea.

ing intuition comes primarily from the mastery of basic skills, or so it is perceived. This is similar to what my basketball coach meant, when he said that we would never play ball until we were able to dribble with our heads up. Intuition can never come to the fore until the skills of the hands are relegated to the subconscious as habits. Therefore in studio drawings and models are often produced with great care and craft as ends in themselves. High quality work breeds confidence and virtuosity.

Studio projects which follow the manner of the creative act (i.e. a synthesis of previously unrelated issues, forms or concepts) practices intuition. Such an exercise needs to establish an original quandary. In other words, establish a set of circumstances outside conscious associations. This beginning, or point of origin is the professor's prerogative. There is a certain arbitrariness to this approach, but given the breadth of personalities involved in a studio, any assigned beginning is arbitrary. In this light, one proposes projects which emphasize individual resolution within a general topic. For instance, a project might propose the architectural exploration of a piece of music or an insects skeleton. These were two projects conducted during a Fall 1991 studio. For the *Pictures at an Exhibition: a study in light and formal translation* the students were asked to select one of the many renditions of Mussorsky's piece to serve as a program (see figures 1, 3 and 4). This was the complete program and dilemma for architectural interpretation. Based on the idea that art brings intuition to presence work began with a series of interpretive drawings and constructions. A series of art works (at least three) is an important part of the process. Firstly, it demonstrates that multiple insights are possible for a single proposition. Secondly, a series is consistent, in terms of many variations on a theme, with how artists work. Thirdly, the structured practicing of skills is obvious. In this particular case, the success of the studios art was confirmed when nine of the ten interpretive pieces submitted for jury in



Fig. 4 "Immortality Realized", Don Keenan's project inspired by *Pictures at an Exhibition* (charcoal on illustration board). This was a solar powered crematorium in the Arizona desert. Importantly the author developed (with the assistance of our Physics Department) all the necessary calculations and panel sizes of the energy requirements.



Fig. 5 Ken Gregg, "for Dwelling". A project evolved from the shell of a crayfish for *Exoskeleton: Variations on A Theme of form Generation*. A structure which attempts to house Heidegger's "Four Fold" of dwelling (in final form).

the universities student art show were selected. After the interpretive series of works a critical analysis was imposed by the authors to develop a use. The use became an inspired architectural program. The novices then structured their research and the analogy of their individual brief and site selection. Criticism was held to articulating the form with intentions, while creativity and craft were publicly celebrated.

The second project for the semester was *Exoskeleton: Variations on the theme of form generation* (see figures 5, 6, and 7). This project asked the student to select a representative anthropoid as the point of departure. Similar to the first project the student's were asked to develop, in series, interpretive sculptures. Each act in the series was critiqued as art, no more, no less. The students were then asked to select one of their sculptures for elaboration into a structural system. Again, several models representing structural systems were constructed and critiqued leading to a use reading. In this case we defined *use* (after Kahn) as an "Institution of Man". In other words, the individuals read their forms as something architectural. Afterwards they invented the program or brief. As in the first problem, craft and art are highly valued as integral to the process. Admittedly, there is nothing unique in such problem statements and that is not the issue. Studio teaching which privileges intuition and craft will develop the craft of intuition.

Any student work will of course, carry the stylistic imprints of their critic and the times. However, these notions of studio play to a paradigm of sanctioning intuition and craft. The craft trilogy of intuition, skilled hands and rational articulation betrays a design process inclusive of an immeasurable. The craft of intuition would ultimately be manifest in the architect by: the mastery of the architect's handicrafts including all those associated with construction; the courage to enter into the realm of art regardless of the pressures of practice or deadlines; and, the development of a personal philosophy where architecture and life are coincident. As studio teachers we give the means to begin the journey.

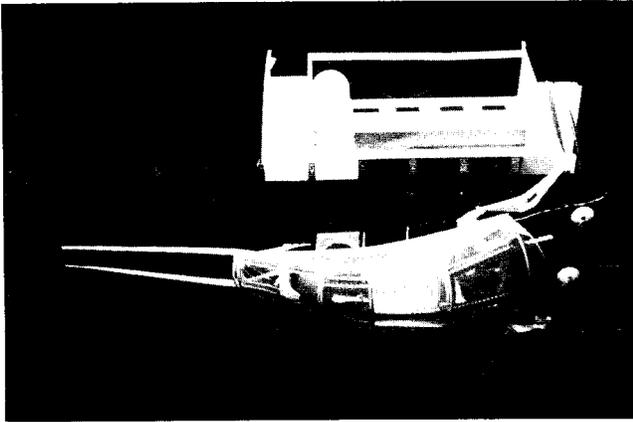


Fig. 6 Romulus Gatapia, "Reaganville: Raiders of the Office Lost". A project evolved for *Exoskeleton*. This is a prototypical portable office for corporate raiders. The office arrives fully intact, by helicopter, under the cover of darkness and invades the bought out workers with umbilical hallways.

The realization of a building is the practice of architecture. The skills of intuition connect the practice, designing a building, to the physics of human experience. But this is true only to an architect who knows existence as both forms of consciousness. In his hands humanity is revealed by art, given dimension through design, and built to again be perceived intuitively.

Conclusively, "Man's agreement [with architecture] is in a real sense the gift of his intuition."¹⁶

NOTES

¹ This paper appears substantially in its the same form as "Kahn's Unusual Distinction of Intuition as Craft", *Architecture : The Act/Art of Building*. Proceedings ACSA Southwest Regional Conference, Oct., 1993. North Carolina State University, 1993: 100.

² *Louis I. Kahn: Writings, Lectures, Interviews*. Introduced and edited by Alessandra Latour. New York: Rizzoli, 1991: 335. Kahn continuing "Our intuition is always ready to spring into action, to grasp information because it bears the imprint of millions of years of experience, ever since the world began..."

³ John Lobell. *Between Silence and Light*. Boulder: Shambala Publications, Inc, 1979: 48. Lobell quoting Kahn, "The only way you can build, the only way you can get the building into being, is through the measurable. you must follow the laws of nature and use quantities of brick, methods of construction, and engineering. But in the end, when the building becomes part of the living, it evokes unmeasurable qualities, and the spirit of its existence takes over."

⁴ Joseph Burton, phone interview, September 23, 1993.

⁵ Joseph Burton. "Notes From Volume Zero: Louis Kahn and the Language of God", *Perspecta* 20. Cambridge: The MIT Press, 1983: 69.

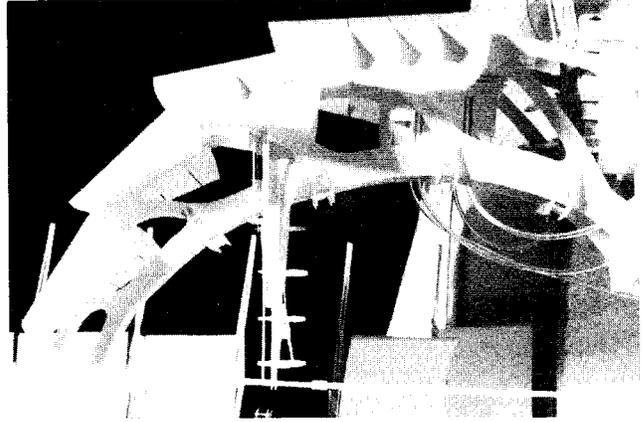


Fig. 7 Doug Stockman, "Project Mohole II". Built to house machine and scientist on the Siberian Plains while an exploratory hole is drilled to below the earth's thinnest crust. A project for *Exoskeleton*.

⁶ C.G. Jung: *Psychology & Religion*. New Haven: Yale University Press, Inc., 1938: 1.

⁷ C.G. Jung: 47.

⁸ C.G. Jung: 100.

⁹ Latour: 145.

¹⁰ Latour: 313.

¹¹ Lobell: 64.

¹² Koestler, Arthur. *The Act of Creation*. New York: The Macmillan Company, 1964: 207. He goes on by saying: "On the testimony of those original thinkers who have taken the trouble to record their method of work, this seems to be the rule ... Their virtually unanimous emphasis on spontaneous intuition, unconscious guidance, and sudden leaps of imagination which they are at a loss to explain, suggests that the role of strictly rational thought—processes in scientific discovery has been vastly overstated since the Age of Enlightenment, and that, contrary to the Cartesian bias in our beliefs, 'full consciousness', in the words of Einstein, 'is a limit case.'"

¹³ Our students come to us having been trained for at least 12 years in an educational system which privileges empiricism, memorization and conformity to the group over speculation, analysis and individuality. I wanted a convincing empirical tool to show my students that they were of an intuitive temperament. I began using the *Keirsey Temperament Sorter* to allow them to determine their own sensory or intuitive biased personalities. To my surprise between 13 to 15 of every 16 person studio are of an intuitive temperament. I make no statistical claims, I only report that these have been the numbers for my own upper level studios for the last four years. These numbers are recurrent and they support emphasizing intuition, at least from a democratic point of view. More importantly however, the test helps build confidence in the student by empirically demonstrating what they actually always knew.

¹⁴ Lobell: 34.

¹⁵ Lobell: 12.

¹⁶ Latour: 333.