HAUNTED SPACES FOR LESSER GODS

exploring the lower road to Christopher Alexander's findings in Book Four of *The Nature of Order*

by
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ABSTRACT: The final volume of Christopher Alexander's *The Nature of Order*, entitled *The Luminous Ground,* proposes a cosmology where the universe is composed of matter-space imbued with spirit, the sentient "I." Alexander offers two hypotheses: one, quickly dismissed as 'merely' psychological, the other, more seriously explored, invokes the presence of God. This essay turns the table around, eschews Alexander's chosen explanation and takes the dismissed hypothesis to heart. The exercise, calling upon the work of Maurice Merleau-Ponty, Charles Sanders Peirce, Bill Hillier, Jacob Bronowski, Gerald Holton, Robert Plant Armstrong, and Robert Pirsig, suggests that the dismissed hypothesis need not be an ugly duckling but, rather, prods us to consider the link between mysticism and proto-science, a link worthy of attention both for theory and practice. [Some familiarity with Alexandrian literature is assumed.]

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a more modest interpretation of Christopher Alexander's findings in Book Four of *The Nature of Order*

The big disappointment back in the late 70's and 80's was that *A Pattern Language* (1977) and *The Timeless Way of Building* (1979) did not spawn built spaces infused with QWAN—the Quality Without a Name—that ineffable moving beauty found in both simple and grand traditional buildings. For sure, lots of enthusiasts, books in hand, remodeled and built, but the results were rather mundane and often a bit 'funky.' Where had the Alexander team missed the mark? What had they left out?

Alexander returned to the drawing board, so to speak, looking for deeper water in deeper wells. Patterns, successfully executed, he thought, could perhaps act as 'clues' to the mystery of *QWAN* not yet understood. He began to notice that successful patterns seem to regroup themselves into a small number of spatial categories, i.e., they exist at different levels of scale, engage centrality, multiple sub-symmetries at different levels of scale, stillness at focal points with surrounding activity or detail, a sense of each 'center' being one with its surrounds, and so on. Was it simply that the presence of these underlying spatial arrangements ('geometric properties' as he calls them) provided psychological comfort, 'zapped' our central nervous system so to speak, or were these spatial categories the key to the elusive profundity he was looking for? Through intuition—or perhaps just wishful thinking—Alexander never followed up on the first line of inquiry, but opted to gamble on the second—maybe he was on to something really BIG. After thirty years of relentless study he published 2000 pages of findings, grandly titled *The Nature of Order*.

The first volume describes the fifteen geometric properties which emerged from his three decades of observing successful and unsuccessful artifacts and buildings. The second volume adds the dimension of time and unfolding wholeness, completing the reader's understanding of 'living structure.' The third offers detailed case studies and the fourth, our main concern here, a general cosmology. The principal subject matter of the final book is the "I," defined on page 2 as *"that interior element in a work of art, or in a work of nature, which makes one feel related to it. . . It is the spirit which animates each living center." He continues on page 3: "This thing, this something, is not God, it is not nature, it is not feeling. It is some ultimate, beyond experience. When I reach for it, I try to find–I can partly feel–the illumination of existence, a glimpse of that ultimate. It is always the same thing at root."* As he explores his topic, his definitions evolve and God enters more and more firmly; by page 146 we have passages such as this:

"In my later years, as I have encountered this sensation more and more concretely, and with more and more certainty, it seems to me that I am seeing God, the glowing of all things, shining out from that old brick wall, or from that bush, or from that face, or from the flowers in a vase."

Alexander's theistic hypothesis is that matter-space is a literally living kind of stuff (using the etymology of the German root *Stoff* or woven material) where life, spirit, and the connection to the human Self heightens as centers become more intensely 'woven.' As part of this hypothesis, Alexander posits, that the "I" which shows through 'living structures' exists physically, lying behind and inside matter-space and <u>is</u> the Divine Ground. Readers who come to the fourth volume already believing in God will find themselves at home. Non-believers or agnostics—it is my guess, anyway—will not find the arguments compelling and perhaps off-putting. The objective in this essay is not to 'take on' Alexander's theism but, rather, take on the limited objective of exploring the non-theistic hypothesis that Alexander dismissed as uninteresting, which he presents on page 148:

"One rational explanation for the existence of this "I" – one which would have been consistent with 20th century modes of thought – is a psychological explanation. Let us suppose that all living structure happens to be a structure which is related to certain (presently unknown) deep structures in human cognition. These cognitive structures, when they occur in the outer world, might easily somehow convey the sense of 'self.' In this interpretation, the structure of all living matter would be related to a fundamental part of human cognition. Living structure therefore seems 'self-life' when it appears in things. . . . What I have been calling "I" would then be no more than a name for the structural universal, common to the cognitive self, and common to all living centers. . . .The fact that living centers appear self-like or being-like would then merely be a coincidence—but a very useful one which gives us a natural way to judge the depth of living structures in the world around us."

The passage continues with two assertions/criticisms which short shrift the hypothesis and are then dropped from the discussion entirely.

"It is quite possible that this is true. But, even if it is true, this explanation does not correspond to <u>all</u> that we feel when experiencing the "I," when experiencing the relationship the old wall at Ryoan-ji and ourselves, when visiting the Baptistery in Florence and looking at the black and white marble floor and on the wall under the golden ceiling-dome of the mosaics.

More vital than that, it does not explain how, or why, we have the sense that this "I" is beckoning us, leading us on, pulling us towards it, trying to help us reach it, trying to help us infuse the lesser works of our own hands, with this same living substance."

The essay addresses Alexander's four points in order:
1. (presently unknown) deep structures in human cognition as they relate to 'living structure,'
2. the self-likeness of these structures when they occur in the outer world,
3. explaining <u>all</u> that is experienced when confronted with the "I,"
4. how, or why, we sense the "I' leading us on.

Let us begin exploration of the first point with this question: What if such deep structures in human cognition were not so unknown?

1. COGNITIVE STRUCTURES AND THE PHENOMENOLOGY OF *LIVED SPACE*

"The World is Flesh."
Maurice Merleau-Ponty

Our cognitive structures in *lived space*–that obvious and easily recognizable day-to-day space we experience through our bodies—tell us about where we are and how to get around. Our sensate experiences of being-in-space, oriented and centered, are so germane to our existence that we would be hard pressed to get through a day without reference to the schemata of *lived space*. Basic orientations such as up/down, front/back, left/right, near/far, not only direct physical activity (*Please, get the coffee cups from the back of the nearest cupboard to your left.*) but metaphorically inform all aspects of our lives (*Stocks went down today. That's a farfetched idea. You're not talking to me; you're talking at me.*) *Lived space* is intimate, 'haunted,' as it were, by our own body, without which it would not exist.

Phenomenologists and linguists have labeled this taken-for-granted world the *lifeworld* and use the term *the natural attitude* for our unquestioned acceptance of the things and experiences in the *lifeworld.* Our body is the place (the void or 'the hollow' as Merleau-Ponty calls it) from which space is sensed and from which objects arrange themselves in an orderly fashion. Now, if we had different bodies we would construct our *lifeworld* differently. Our experience of three-dimensional space is a consequence of our ear structure with its three semi-circular canals in the vestibular balance system. Other species with only two canals experience a two-dimensional world. With bilateral symmetry and a big enough body come paired sense organs that can triangulate on the location of a target (sound, sight, or smell) and, with experience of space, time, and process, humans are soon accurately catching fly balls and parallel parking their cars. Human vision has evolved to see stable shapes through edges of contrast; frogs, on the other hand, live in a universe of moving blips and blobs. Our eye movements and what we notice as salient reflect the purpose of our looking. [(1)]

I am making the obvious point that we know a fair amount about deep structures in human cognition. Hard-wired into our survival mechanisms are Gestalt categories, natural contents and lines of cleavage of experience: categories of shape, number, size, movement, constancy, continuity, and succession. At the conscious level we work with verbalizable perceptions of change and events organized into discontinuous chunks—like the ticks on a clock. At this conscious level our field of attention is constructed. Underneath is an unverbalized flow of sensing and hunches in a diffused field of attention. As 'embodied' living organisms with a sensorimotor system operating in a 'space-time-energy manifold,' motility, intention, direction, kinetic centering and balance are key to our making judgments through time and in a *lifeworld* of emergent meaning.

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1. *"The mechanism by which pairs of sensors can produce useful orienting behaviors can be exceedingly simple. A basement hobbyist can easily construct a small machine capable of such seeing behaviors using nothing more than a pair of sensors (for example, simple light detectors that can be purchased for a few pennies at an electronics shop), a pair of wheels, and a powered motor. By wiring the machine together in such a way that each sensor is attached to a wheel on the opposite side of the body, the machine can be made to roll rapidly toward sources of light. Alternatively, reversing the wiring will produce a timid machine that seeks out dark corners."*

Colin Ellard, *You Are Here: Why We Can Find Our Way to the Moon, but Get Lost in the Mall.*

IMAGE-SCHEMATA OF *LIVED SPACE*

"What we observe is not nature itself, but nature exposed to our method of questioning."
Werner Heisenberg

The Nature of Order, introduces the fifteen properties as alinguisitic, real, and 'out there'—always present in the natural God-made world but only sometimes present in man-made artifacts—the good ones, of course. At many points in the four volumes, Alexander points hopefully to confirmation of the fifteen properties through further research in mathematics. Given Alexander's first-class training in mathematics, a reader might have expected a fuller development but as Alexander comments in Note 25 on page 336, *"Although the fifteen properties seem straightforward, I have found that attempts to formulate them exactly by giving necessary and sufficient conditions for their occurrence in a particular case, are surprisingly elusive. It is possible that this hides a greater difficulty than mere precision of mathematical draftsmanship."*

Working from much more modest observations about the biological evolution of mankind's sensori-motor systems, I'd like to consider the possibility that Alexander's fifteen properties are less 'out there' (and ultimately susceptible to mathematical description), than 'in here' image-schemata of *lived space*, that is to say, perceptual patterns resulting from human evolution and from our experience of ease when navigating environments that follow natural body mapping and discomfort in environments that do not accommodate our physical and psychological makeup. From a 'lesser gods'—i.e., just human—phenomenological point of view, Alexander's properties, can be seen as 'rhemic iconic qualifiers'—a term from Charles Sanders Peirce. In Peirce's epistemology we grasp the meaning of such qualifiers only through our experience in 'lived space,' so if Alexander is on the wrong foot when he talks about 'properties' or 'attributes' of the world 'out there,' and that sensate based 'image-schemata' is more accurate, Peirce's epistemology is relevant. Peirce's idea of 'rheme' or 'unsaturated predicate' refers to our attention being on only one aspect of our experience. When, for example, we chip off a piece of old painted plaster or brush some red paint on a piece of wood or cardboard to take to the hardware store in order to purchase a matching color, we aren't concerned with the size, shape, or cost of the plaster, wood or cardboard, but only the 'redness' or 'blueness' of the color. 'Rhemic iconic qualifiers' are useful shorthand expressions for talking about a variety of related experiences. Think of 'elasticity' as a rheme, i.e. a way of talking about how different materials act when we work with them or 'gravity' as our experience of various falling objects or, for that matter, our own bodies as we slip on ice or climb stairs. Alexander's 'echoes,' for example, allow us to speak about an experience of unification across a range of natural and man-made objects, city skylines, bluegrass music, sibling resemblances, or Shaker furniture. Alexander's properties offer ways of observing, knowing, communicating, and inventing. The risk, ever-present and ever so easy, is to reify these 'rhemes' into reductionist or operational recipes—a job they are ill suited to do.

By bringing *lived space, lifeworld, the natural attitude, image schemata* and *rhemic iconic qualifiers* into the discussion, I am simply making the well-known and well-accepted phenomenological (and psychological) claim that people and their world are intimately relating, each making the other. In other words, we do not act on the world as subjects in relation to objects but, rather, as experiencing beings whose understandings unfold in a world that narrates those understandings.

LIVED SPACE VERSUS SCHOOL-LEARNED SPACE

The truth knocks on the door and you say, "Go away, I'm looking for the truth, " and so it goes away.
Zen Buddhist proverb

In 1987, the linguist, M.L. Johnson, published *The Body in the Mind: The bodily basis of meaning, imagination and reason* attempts the first master-list of *lived space* image-schemata: *Up/Down, Cycle, Container, Centre-Periphery, Diversion, Blockage, Enablement, Path, Part-Whole, Full-Empty, Iteration, Surface, Balance, Counterforce, Attraction, Link, Near-Far, Merging, Matching, Contact, Object, Compulsion, Restraint Removal, Mass-Count, Scale, Splitting, Superimposition, Process, Collection.*

Each schema, or recurring pattern *in* or *of* ordering activity, constitutes a physical understanding. For example, *Compulsion* and *Restraint Removal* are built around our kinetic understanding of force or pressure. *Path, Blockage,* and *Enablement* relate to our knowledge of movement and impediment. *Splitting, Superimposition*, and *Mass Count* are based on imaging. It doesn't take long to see just how closely Alexander's fifteen properties (rhemic iconic qualifiers) overlap in interesting ways with Johnson's list. [(2)] Alexander's writings also put into perspective our lopsided education which exalts formal idealized forms and relegates to the broom closet all talk of *lived space* and *self-like* structures.

Alexander (page 343) admits that he is a child of the 20th century and prone to frequent 'slippages' back into the default reductionist mechanical worldview of matter and space, which he fights, then doubts his new thoughts, slipping back again into old habits. Well, we are all children of the 20th century, Western civilization, science, rationality, with an acquired proclivity to think of matter as inert and space as empty, transparent, unstructured, isotropic. This remains the case even when we know better—we know that science has moved on to thinking about matter-space as a continuum with passing strange behaviors of waves acting as particles and particles as waves. We just seem stuck with the idea that space is *dis*-stance and to bring this vast emptiness to heel, we study a discipline revolving around idealized forms—geometry.

Architects are among those of us who receive an extra large dose of this intellectual heritage and we can trace how Alexander's earlier work, *Notes on the Synthesis of Form* (1964), a rather Janus-headed text, was written with one line of thought—the mathematical treatment of decomposition—reflecting Alexander's own upbringing in the disciplines of math and logic; shadowed by another contrasting line of thought—with a more philosophical view of the act of design—reflecting Alexander's discomfort with his own attempted formality. Then, later, with more experience, *A Pattern Language* and *The Timeless Way of Building* signaled Alexander's initial exploratory moves away from Euclidean thinking. *The Nature of Order* moves steadily toward *lived space*, but still with that old undercurrent—the hankerings of a reformed 'alcoholic' forever addicted to scientific proofs and the 'Cartesian dream.'
The 'Cartesian dream' is of the grand narrative in which we can fit the entire world. *Lived space*, on the other hand, accepts multiples of inter-reflecting rich and intricate local mappings, local

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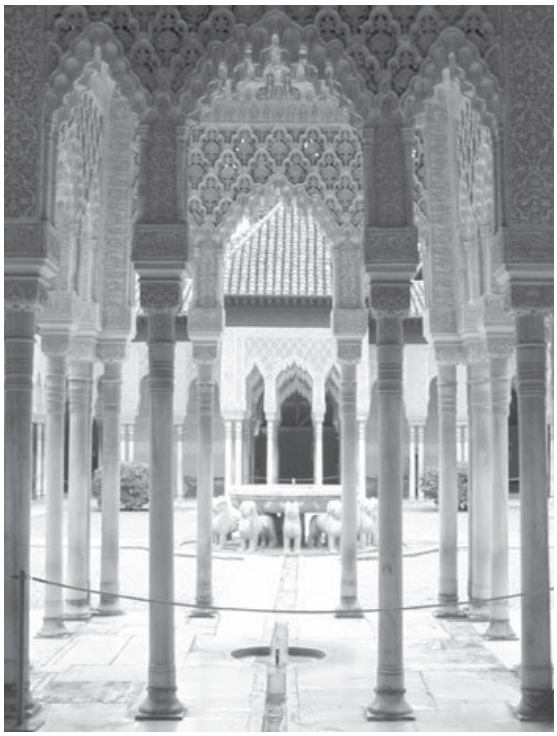
2. Credit for the idea of re-interpreting Alexander's properties in the light of Johnson's work and as a counterweight to learned space, belongs entirely to David Week, this essay merely elaborates an approach sketched out in Week's Ph.D. thesis.



"Things are stories."
Maurice Merleau Ponty

One of many courtyards in the Alhambra: a multitude of local symmetries at all levels of scale telling local stories in *lived space*.

metaphors and local stories that inform, orient, and house the infinite and contradictory variations in human activities. An eye practiced in the study of Alexandrian *local symmetries* and *levels of scale* ,which guide our perceptions of Gestalts and both surface and deep coherence (Johnson's *container, part-whole, balance, link, scale, iteration*), soon finds the built world based on abstract forms a lethally boring one. In David Week's terms, *lived spaces* 'hang together' through *echoes* (Johnson's *iteration, link, matching*), loose similarities, some tenuous, some firm, and family resemblances of form and material, a natural complexity which gets suppressed by the frozen geometry and logic of school-learned habits. If clean sharp-edged objects form the prototypes of modern space, *deep interlock and ambiguity* (Johnson's *link, merging, contact, superimposition, collection*) is prototypical in *lived space*. Although our visual experience of edges gives us the axis of lines and our motility and haptic system allow us to understand movement and resistance, these structures of experience in *lived space* are not closed or stiff, but *rough,* allowing the relaxation and disclosure of the full range of bodily sense and posture—not completely open, but not that narrow. This relaxed aspect of *lived space* is germane to Alexander's work and antithetical to the pervasive aesthetic. *Lived spaces* are in perpetual beta, accommodating life's *alternating repetitions* (Johnson's *cycle, iteration, splitting, process*) of activity/ rest, solitary/collective, public/private, through overlapping *centers* and coherent patterns.

Consider how an Alexandrian *center* (Johnson's *objects)* is not a point-center of a geometric circle but created by the field around it—in keeping with *lived space* where the body is the structuring *void.* The image-schemata of the Alexandrian field-like structure, *good shape, positive space, contrast, boundaries, gradients,* make more *lifeworld* sense than razor thin A/not A categories. Alexander's work allows us to question and deconstruct our academic space by revealing its shadow 'other.' We set new sights on *simplicity and inner calm* and *not separateness* as useful rhemes which help us undermine a worldview composed of isolated objects in empty space in favor of a humanized universe where each object is necessary, melting and joining with the others in a complex yet coherent field.

A USEFUL SUPPLEMENT FROM BILL HILLIER

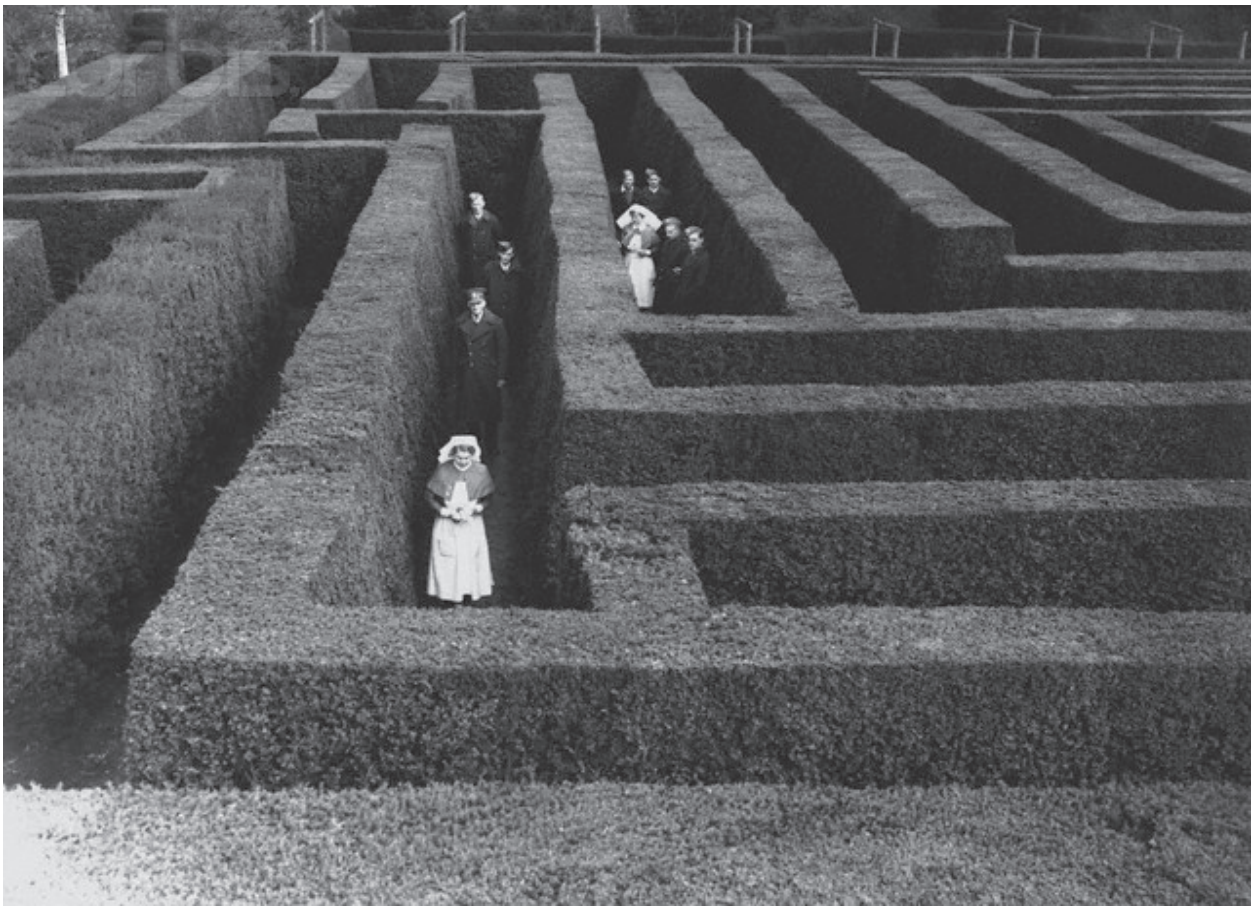
Although Alexander's list of properties strongly reflects some of Johnson's image-schemata, it does not reflect them all, but when we supplement Alexander's work with that of Bill Hillier we complete the picture. Hillier's concerns with habitability in urban spaces is tangential to our main topic of the "I" in 'living structures' since Alexander's examples tend toward small scale—although we could conceivably talk about the "I" or conduct mirror-of-the-self tests using neighborhoods or towns. However, the cognitive and psychological aspects of urban habitability are certainly related to Alexander's 'living structures;' and Hillier's work fills out our understanding of *lived space*, cognitive structures, and image-schemata in such a useful way that I've opted for a two paragraph detour.

Specifically, as David Seamon [3] points out, Alexander ignores the integrative power of pathways so that the whole, reduced to its local parts, fails to thrive, whereas Hillier's work is all about how *"urban areas are successful when pathways (axial spaces), large and small, hold together the whole fabric, allowing resources and inhabitants to flow like blood in the large and smaller vessels of the body. In other words, axial space relates to the one-dimensional, "moving" quality of open space and to a wider-scaled, global relationship—the way the particular spatial configuration of the pathway fabric lays out a potential movement field—drawing people together or keeping them apart and assisting or hindering newcomers as they attempt to get around an unfamiliar place. Axial space is necessary to the life of convex spaces, those 'fat' nodes (markets, squares, soccer fields, public buildings, 'third places') of rest and encounter."* From Hillier's work we see that the experience of ease and integration in a physical space (large or small) is actually more a function of the number of changes in direction than anything else. Walkers and drivers do not correctly evaluate distance or time but, rather, experience 'straight' as nearby and easy. It's true that Hillier's space syntax analysis tends to collapse much of the metric size and shape of space to a series of nodes and lines, however, so do the cognitive structures of our minds as we put mental maps of space together as a series of simple viewpoints (the nodes) and the connections between them (the lines or paths). We complete our overlap with Johnson's list by being able to deal more fully with: *Centre-Periphery, Diversion, Blockage, Enablement, Path, Attraction, Link, Merging, Restraint Removal, Process* and *Collection.*

Hillier also helps us think clearly about 'intelligibility,' which is key to habitability in built environments and to 'living structures' in general. His concepts complement Alexandrian *levels of scale* and, at the same time, illustrate how deep structures of human cognition have everything to do with how we relate to artifacts and spaces around us. We can think of 'intelligibility' as a kind of correlation between the spatial characteristics of the whole (building or town) and the characteristics of any small part. An intelligible building, for example, is one in which the hallways that one needs to use most often to get from one place to another are also the ones that intersect with many other hallways. It isn't hard to imagine an unintelligible building: it could be one in which a hallway intersecting may other hallways leads nowhere, or one in which a small area with very few connections must be navigated to get almost anywhere else in the building. A building that contained a regular grid of hallways would also be considered unintelligible because all hallways would appear to be more or less equivalent. They would all present a similar appearance and would all be equally connected to one another. Wayfinding is also difficult in buildings where wings or hallways intersect at oblique

3. Phenomenologist, David Seamon, has done the most to point out the relevance of Hillier's work to the Alexandrian audience, the bibliography lists relevant essays.

angles. Because our minds are always looking for ways to simplify mental models of space, we have a tendency to align different regions, straighten curves and smooth out jagged edges. Certain types of spatial puzzles, such as hedgerow mazes, are often designed explicitly to have very low intelligibility. 'Intelligibility' correlates very well with behavior: people get lost in spatially unintelligible spaces.



A hedgerow maze

IMAGE-SCHEMATA AS PROTO-SCIENCE

"It has been one of the most destructive modern prejudices that art and science are different and somehow incompatible interests."
Jacob Bronowski, *The Commonsense of Science*

Johnson's interest, as a linguist, was in how we use image-schemata in speech and thought, while Alexander's schemata and those of Hillier are tools for observation and design in architecture and urban planning. A third relevant and overlapping source of image-schemata is offered to us through the history and philosophy of science.

Two well-known historians of science (and scientists in their own right) who explore image-schemata as proto-science are Jacob Bronowski (mathematician) and Gerald Holton (physicist). Both have come to emphasize the lack of polarization between subjective and objective work. In other words, as

they (each in his own way), reconstructed actual scientific work-in-progress, they came to see as naive and wrong-headed the popular dicotomy between the 'rule of reason' and 'mystical conviction.'

For Bronowski, imagination is the province of both science and art and is essentially about the manipulation of mental images—and therefore we can expect to find in scientific work that, for example,it is a dream of a snake biting its tail that leads Kekulé to unraveling the mysteries of the circular benzene structure. For Bronowski, the act of human imagination is not passive. To fully appreciate the *work* of art [or science] the 'on-lookers' must recreate for themselves the endeavors of the artist or scientist in the construction of meaning. *"No work of art has been created with such finality that you need contribute nothing to it . . . it cannot be presented to you ready-made."* [Bronowski, *The Visionary Eye*.] But how do we activate our imagination to 're-create' the artistic or scientific work other than through our body schemata of *lived space*—those very schemata which guide our physical actions, metaphoric thoughts, and dream-states in sleep?

Gerald Holton's work focuses on that phase of nascent reflection which guides scientific work but remains relatively private and fails to make it to the finished public report on findings. Holton's fine grain study of unpublished notes, letters, and reminiscences about conversations, leads us to a list (actually quite short), of 'themata' which drive exploratory quests without necessarily being explicitly at issue in the research. Included in his list are atomicity/continuum, evolution/devolution, simplicity/complexity, constancy/evolution/catastrophic change, hierarchy/unity, and the explanatory efficacy of mathematics/mechanical models. There is an obvious overlapping between some of Holton's themata and some of Alexander's; other themata in Holton's list are closer to Alexander's more general and abstract discussions on unfolding of wholeness, structure-preservation and increasing density of centers.

2. MIRRORS-OF-THE-SELF

To summarize the first point: (a) the phenomenological/psychological view is that there are known deep structures in human cognition (we need not just suppose them) and those structures are at the base of our *lifeworld* and imaginative thought, (b) the significance of both Alexander and Hiller's work is that, more than other architectural theorists, they address human *lived space,* c) formal science dismisses at its own peril the creative role of bodily image-schemata in proto-science.

Let us now return to Alexander's dismissed hypothesis and investigate the second point: . . ." *These cognitive structures, when they occur in the outer world, might easily somehow convey the sense of 'self.'*

Well, for sure, living structure seems 'self-like.' Readers are likely to know about the mirror-of-the-self test. Personally I'm a fan of the method and have been since the evening I (admittedly reluctantly) first gave it a serious try. At the time, I frequently opted for supper at a small Moroccan restaurant near my apartment and the owner had on display his personal collection of pottery from his home country. I had already picked out the one I 'liked' best and would gladly take home with me. This pot had a lovely round sensual shape and a deep yellow-gold glaze and would have sung a joyful song sitting on my kitchen windowsill. However, when I seriously entertained the thought of being reincarnated as a Moroccan pot and had to chose the one most like myself, my soul, I found—to my

own astonishment—the choice had to be another piece, this one muddy-brown, sober, even sad, with a band of intricate black lines around the neck. It had a quiet elegance but it was *very* quiet. I then asked the owner to tell me about his collection. The yellow pot was, he said, a 'nice' piece, but the brown one was, as any serious collector would know, 'the significant piece.'

The test of self-likeness does work. It works initially to acquaint us with the properties as properties in things 'out there,' as if subject and object were divorced. Then it helps us use them as rhemes or schemata within ourselves as we engage in design work. It works as a learning and teaching device, along the lines of the suggestion that *'if you want to cultivate a better ear for music, then listen to more music,'* so that with exposure we move from a preference for 'easy listening' to scores of greater complexity. The self-likeness test also acts as a short-cut to deeper appreciation. Below is a series of three doors which an instructor might use to discuss both the experience of self-likeness and the property *deep interlock and ambiguity.* A slower study of three vases from Rio Grande pueblos follows in which the third vase (far right) is the best one, the 'tighter' weaving of the centers most quickly discernible by comparing the quality of the *positive spaces* of the figure/ground relationships.

For this part of Alexander's presentation there is no contradiction with the psychological hypothesis, we need only to note that Alexander's quest (and claim) is for more than 'mere coincidence.'

3. CO-DEPENDENT ARISING: THE SUBJECT/OBJECT DIVIDE

"In order to free ourselves of the Platonic idealism and Cartesian schism implicit in our Western metaphors for knowledge, we need to reframe knowledge. Knowledge is not a picture of an external reality, but a biological response to a new situation. As such, it always arises from both organism and environment: from knower and known. Knowledge is the result of 'codependent arising.'"

David Week, *A hermeneutic approach to the practice of architecture in a foreign culture*

And now on to the third point where Alexander brings up what he feels is a failing of the psychological hypothesis, even if the hypothesis turns out to be true:. . . *", even if it is true, this explanation does not correspond to <u>all</u> that we feel when experiencing the "I."*

Alexander (page 13) reminds us of—and emphatically buys into—Alfred North Whitehead's bifurcation of nature which states that we can really have a complete understanding of the universe and our place in it, only when our experience of our own selves (subject) and the mechanical character of matter external to ourselves (object) are joined in a single view. Alexander's personal resolution of the bifurcation involves a Divine Ground of which we are a part and can become aware of—through direct revelation and certain works of art that act as a window, as it were, onto the Ground. The psychological/phenomenological approach also addresses the questions of subject and object—but leads to a different conclusion than Alexander's theism.

I'd like to bring into this section of the discussion insights from Robert Plant Armstrong, an anthropologist with a phenomenological bent. Armstrong took on the protean question of how to understand those artifacts (from around the world) that had a sort of sentience, a sort of energy—a power of presence, a power to affect. As an anthropologist, he was interested in cultural patterning and this is a topic different from Alexander's, but there is a narrow fringe of fertile overlap.

Armstrong proceeds phenomenologically, viewing the artifact as a thing in itself, with its own significance, incarnated within its own existence and not external to itself. Art, argues Armstrong, is man living and if one studies art one studies the externalization of man's interiority—an actuality of human experience: *"The artifact's affecting presence is at least a direct presentation of the 'feelingful' dimension of the artist's experience. It proceeds at its root not through mediation, as a symbol does–though it may do this as well–but through what we may only call immediation. The affecting presence is directly and presently what it is, and precisely is in those physically significant terms in which it is presented for our witnessing. . .What we behold in the affecting presence is less of the world of object than a phenomenon of the personal world of man–not a utensil but an act ever in the process of enacting itself–an instance of incarnated experience and the sole instance of a man's and a culture's interiority available to the outsider."* (from *Wellspring: On the Myth and Source of Culture*, page 19).

"The affecting presence acts as subject, asserting its own being, inviting the perceptor's recognition and, in culturally permitted ways, structuring that subsequent relationship, which someone has called transaction, in recognition of the fact that while the presence informs the man, the man, in his unique way, to some extent and in some fashion, informs the presence. But although the presence is subject it is a limited subject restricted by

the extent to which it is at the same time an object. It obviously cannot perceive the preceptor it can only be perceived, owned, created. . ." (from *The Affecting Presence: An Essay in Humanistic Anthropology,* page 25):

Armstrong looks at how works of affecting presence around the world are accorded special treatment. They are respected, revered, accrue power to their owner, are housed in the finest buildings, and sometimes bathed, fed, clothed, and paraded around town. He muses that if the presence of the work is such that the work is treated after the fashion of a human person then we can reason that such powers as the artifact owns must be very like those owned by human persons. "*The problem of defining the powers of the work thus becomes one of finding those respects in which process of work and person are the same. Insofar as it is clear that these identities are neither physiological nor anatomical, then–given but the three simple choices–they are to be seen as psychological. . .*

Greek Orthodox procession in Bachkovo, Romania

"*The work of affecting presence–sharing psychological processes with persons–sometimes seems as much to apprehend its witness as its witness apprehends it. This phenomenon is especially apparent in the instance of a danced mask. I myself have felt scrutinized to my essence, turned nearly into an object before insistent confrontation of a mask danced. It is much the same with a portrait–this is easy enough to see. But the case becomes more difficult when we consider a landscape. And, indeed, does it not appear to be of a completely different order when we leave depiction to enter into the world of abstract expressionism, or depart the visual entirely, journeying instead into the intergalactic spaces of Cage's sound or of Pound's recondite lexical images? Still we know that something is abrood there, something akin to but yet not ourselves–something existent there, <u>something being</u>.*" (from *The Power of Presence*, page 16)

To summarize this point, the psychological hypothesis has room for Alexander to say that merely experiencing a self-like "I" does not account for *all* we feel when experiencing the "I." In fact, a mirror, as implied in the mirror-of-the-self test is, by definition, 'empty' and, in that sense, misleads us into thinking that we are simply subject, narcissistically seeing nothing but our own reflection. What is suggested here is those artifacts of intense 'living structure'—those with the power to move us—those with "I"—exist in a state of tension between being subject and being object. It is in the energy of such interplay—and our own interplay as subject and object in the 'transaction' (a double embedded duality)—that their power and our experience reside.

4. THE CRAFTSMAN

"The real cycle you're working on is a cycle called yourself.
The machine that appears to be 'out there' and the person that appears to be 'in here' are not two separate things.
They grow toward Quality or fall away from Quality together."

Robert Pirsig, *Zen and the Art of Motorcycle Maintenance*

And, finally, the fourth point, Alexander's perception that the psychological hypothesis, even if it proves to be true. . .*"does not explain how, or why, we have the sense that this "I" is beckoning us, leading us on. . .*

In the 'transaction' described above, the witness of a 'living structure' imbued with "I," will be affected, moved, shaken, brought to new insights about himself. This new knowledge, as David Week's quote from the previous section points out is not about a picture of an external reality, but a biological response to a new situation. . .arising from both organism and environment: from knower and known. Few writers have more sagaciously delved into this than Robert Pirsig who convinces us that Quality—(and note that by page 302 *The Quality Without a Name* has becomes spirit, has become God)—isn't a thing or an illusive spirituality. It is an event. It is the event at which the subject becomes aware of the object—and without objects there can be no subject because the objects create the subject's awareness of himself. *"Quality is not just the result of a collision between subject and object. The very existence of subject and object themselves is deduced from the Quality event. The Quality event is the cause of the subjects and objects, which are then mistakenly presumed to be the cause of the Quality."* (from *Zen and the Art of Motorcycle Maintenance*) The craftsman, Pirsig tells us, determines his thoughts and motions while he has the materials of his work at hand: *"The material and his thoughts are changing together in a progression of changes until his mind's at rest at the same time the material's right."*

Let's return to Armstrong who develops two basic categories of artifacts with affecting presence. The first, works of invocation, are created to move the God(s) and are generally performed—Native American rain rattles and carefully executed dances and chanting for an easy example. The second, works of virtuosity, spin their energies between themselves and their witness and are deliberately crafted to do so. Alexander's examples in *The Luminous Ground* are of this second category and, interestingly, Alexander himself is very clear on this point, constantly exhorting the craftsman to concentrate, concentrate, until his work incarnates that power to evoke deep personal feelings. The Alexandrian craftsman must reach a point of kinship with the African performer who says not *I sing* but *I am sung*.

"We know, of course, at least since the time of the Stoics, that signs are multiple double-faced entities, but the particular bifaciality I am aiming at now is the double face of self and world, or organism and environment, subject and object, which in all signs is both held open as a difference and yet undermined at the same time. This Grund Differenz or differentia prima, the primal difference between self and world, is only possible and maintained as difference within very complex semiotic confines. And yet it is precisely the same sign structure which also conflates the primal difference by disclosing in the world the story of the self and in the self the story of the world."

Eugen Baer, *Medical Semiotics*, page 109

Madonna 12th century Spain. A work of virtuosity.

The psychological hypothesis would posit that an external reality of God or Ultimate Ground, a subject/object divide to be bridged through divine knowledge, is not required for the experience of being moved to 'infuse the lesser works of our own hands with this living substance.' That experience, according to the psychological hypothesis, would come from within the man himself as he encounters himself encountering the work of art. The making of wholeness which heals the maker (to paraphrase the name of one of the sections in Book Four) would be like exploratory play: it would be its own reward.

The self-rewarding exploratory nature of making wholeness (as described in Gregory Bateson's *Steps to an Ecology of the Mind* and Johan Huizinga's *Homo Ludens*) can be further understood in two ways. First, by recognizing that metaphor is the ultimate principle in a work of virtuosity. Metaphor, both in the usual sense of digging into the knowledge of something known to discover clues about something less known, and as diaphor (Philip Wheelwright's term) where meaning is engendered by the juxtaposition of previously unjoined elements (words in poetry for example or images in the visual arts). The second self-rewarding exploration resides in what Merleau Ponty calls the system of equivalences where we experiment with how to transfer experiences from one media to another: *"Anyone who thinks about the matter finds it astonishing that very often a good painter can also make good drawings or good sculpture. Since neither the means of expression nor the creative gestures are comparable, this fact [of competence in several media] is proof that there is a system of equivalences, a Logos of lines, of lighting, of colors, of reliefs, of masses—a conceptless presentation of universal Being. The effort of modern painting has been directed not so much toward choosing between line and color, even between the figuration of things and the creation of signs, as it has been toward multiplying the systems of equivalences, toward severing their adherence to the envelope of things." (The Primacy of Perception and Other Essays,* page 182)

A PSYCHOLOGICAL STRONG SUIT?

La nuit porte conseil. (The night brings good advice.) A French saying

To conclude this essay, we recall that Alexander rejected the psychological hypothesis as uninteresting but did not deny its possible truthfulness. In turn, this essay does not attempt to systematically refute Alexander's preferred theistic hypothesis. Personally, I read Book Four as a 'feelingful' discussion of the awe and mystery we experience when we encounter great beauty and vitality, be it natural or man-made and a reiteration of the Perennial Philosophy [4]—but not (as the chosen quote for the Book Flap promises) a credible scientific proof of the existence of God. Alexander may identify himself as a scientist, but as Philip Ball, consultant editor of *Nature*, remarked in an interview in KATARXIS, *"Frankly, I don't think Alexander's book will get a lot of attention in the scientific community, because there doesn't seem to be any real science in it."*

And yet. . . should we antagonistically underscore the scientific shortfall of Book Four, toss out the whole thing, and thereby run the risk of throwing out the proverbial baby with the bath water? Would we be wise to smugly summarize that the psychological hypothesis with grounding in cognitive structures is largely sufficient to adequately account for all phenomena we've discussed and that we don't need God? Probably not. Believer and nonbeliever alike—if we are not to shrivel and dry out—need the night, dream-states, the unknown, the mysticism of life, be it pagan, Christian, or personal. We can all find sustenance in Rumi's love affair with the Divine. We can all find inspiration in the alinguisitc primal messages of image-schemata—letting our proto-scientific kinetic knowledge of our own pulse generate thoughts about pendulums and clocks or the 'hollow' of our own bodies guide the creation of still places in our gardens. Also, let us not forget how utterly unusual (and refreshingly politically incorrect) is Alexander's proposal that God, higher order, consciousness, magic (the reader's choice of word) is to be found in ordered materiality.

For non-believers, Alexander's strong suit may be the 'mystical enrichment' of the psychological realm that he dismisses. His early work in *Notes* on the unself-conscious designer obviously calls upon man's *natural attitude. A Pattern Language* and *The Timeless Way* are seminal works about *lived space* and *lifeworlds*. The fifteen properties (and other concepts) from *The Nature of Order* may prove most useful as rhemes or cultural and intellectual constructs, for designing, teaching, learning, and exploring. *QWAN* may not be God shining through an object 'out there' but the eventful melting together of subject and object, artist and material, a rendezvous that we all so often miss. For believers, the exploration of the psychological hypothesis offers an articulation of *lived space* and subject-object interactions missing in *The Nature of Order*. The psychological hypothesis confronts Whitehead's bifurcation of nature with the *tat tvam asi* truth of the Upanisads, "*At the moment of pure quality, subject and object are identical.*"

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4. "At the core of the Perennial Philosophy we find four fundamental doctrines. First: the phenomenal world of matter and of individualized consciousness–the world of things and animals and men and even gods–is the manifestation of a Divine Ground within which all partial realities have their being, and apart from which they would be non-existent. Second: human beings are capable not merely of knowing about the Divine Ground by inference, they can also realize its existence by a direct intuition, superior to discursive reasoning. This immediate knowledge unites the knower with that which is known. Third: man possesses a double nature, a phenomenal ego and an eternal Self, which is the inner man,

the spirit, the spark of divinity within the soul. It is possible for a man, if he so desires, to identify himself with the spirit and therefore with the Divine Ground, which is of the same or like nature with the spirit. Fourth: man's life on earth has only one end and purpose to identify himself with his eternal Self and so to come to intuitive knowledge of the Divine Ground. Aldous Huxley, 1945. (I am indebted to Daniel Schwab for reminding me of this succinct and relevant passage.)

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APPENDIX

This series of six pavements runs the spectrum from dead to 'living structure.' The reader is invited to engage with each photograph paying attention to the subject/object divide, the encounter with self or, perhaps, the Divine Ground. Photos courtesy of Daniel Schwab.