



Environmental & Architectural Phenomenology

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This *EAP* completes our 19th year. We enclose a renewal form and would appreciate prompt responses so there will be fewer reminders to send in the winter 2009 issue.

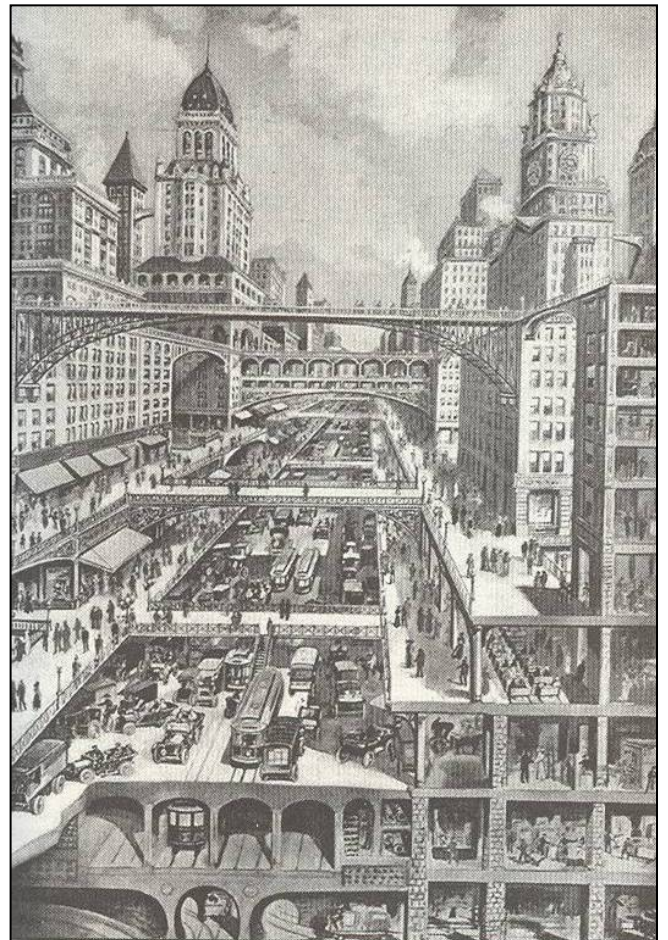
This issue includes two feature essays. Architect **Robert Walsh** provides a thoughtful commentary on the recent EDRA conference intensive on the work of architect and writer Christopher Alexander. The conference was held in Veracruz, Mexico, in May. Next, educator **John Cameron** writes his second letter from Bruny Island, just off the southeastern coast of Australia's Tasmania. One of Cameron's study interests is Goethean science as a phenomenology of nature. In this letter, he describes his efforts to use the Goethean approach to better understand the geology of the rocky shoreline fronting the 55-acre homestead property that he and his partner Vicki King are slowly restoring.

As always, we need material for future issues. Please, if you have items—citations, essays, drawings, and so forth—send them along! We particularly appreciate student work.

Architecture & Phenomenology

The 2nd **International Conference on Architecture and Phenomenology** will be held at Kyoto Seika University, Kyoto, Japan, 26-29 June 2009. From the prospectus: "Phenomenology has been one of the most productive and inspirational arenas of thinking in the discourse of contemporary architecture since the 1960s. Despite criticisms made by other schools of philosophy such as neo-Marxism, structuralism, post-structuralism, post-colonialism, and so forth, phenomenological lessons on life-world, language, perception, body, creation and ethics inspired consistently leading architects and writers in architecture." Paper abstracts are due 31 August 2008. Contact: Stanley Russell (University of South Florida) Russell@arch.usf.edu.

Below: Cover of *Scientific American*, 26 July 1913, predicting a city of the future. The illustration is reproduced in John H. Lienhard's *Inventing Modern—Growing up with X-rays, Skyscrapers, and Tailfins*—see p. 3. Lienhard explains that the drawing "shows a careful hierarchy of movement. Upper paths and bridges are meant entirely for pedestrian travel. They lie next to storefronts, far above the ground... Roadways below are for motorcars, omnibuses, and the occasional horse-drawn vehicle. Electric trolleys run in tunnels below the street, and in the layer below them are tramways for merchandise." Lienhard likens the separation of pedestrians, vehicles, and material to "the handling of fluid flows." This hierarchical urban layering is what Lienhard calls the "skycity" or "titan city"—clusters of high-rise buildings that eventually became a central feature of the "Modern" urban landscape.



More Donors, 2008

We are grateful to the following readers who, since the last issue, have contributed more than the base subscription for 2008: **Alfred Bay, Herng-Dar Bih, Roxanne Bok, Roger Hart, Patricia Locke, Matt Thompson, and Ray Weisenburger.**

Items of Interest

The inaugural symposium of the **Forum for Architecture, Culture and Spirituality** (see *EAP*, spring 2008) will be held at the Mt. Angel Abbey Retreat House near Salem, Oregon, 24-26 March 2009. The intimate size of the gathering (20-30 participants) is envisioned to facilitate “focused, engaging, and joyful discussions.” Contact: bermudez@arch.utah.edu.

The annual **International Human Science Research Conference** will be held 17-19 June 2009 at Molde University College in Molde, Norway. The theme is “The Discipline(s) of Phenomenology: Expanding the Boundaries of Practice.” www.himolde.no/conf/ihsrc/2009.

The newly founded peer-reviewed journal *Emotion, Space and Society* invites submissions of articles that “investigate the multiplicity of spaces and places that produce and are produced by emotional and affective life. We encourage a broad range of theoretical and methodological engagements with emotion as a social, cultural and spatial phenomenon, and welcome innovative presentational formats.” www.elsevier.com/wps/locate/emospa.

The international journal *Ethics & the Environment* “provides an interdisciplinary forum for theoretical and practical articles, discussions, and book reviews in the broad area encompassed by environmental philosophy. Possible topics include conceptual approaches in ecological philosophy, such as ecological feminism and deep ecology, as they apply to issues such as cloning, genetically modified organisms, new reproductive technology, war and militarism, environmental education and management, ecological economics, and ecosystem health.” <http://inscribe.iupress.org/loi/ete>.

The *Journal of Urbanism* is a multi-disciplinary journal that focuses on human settlement and its

relation to sustainability, social justice and cultural understanding. Topics covered include: urban regeneration, new urbanism, European urbanism, landscape urbanism, urban sustainability, Smart Growth, livable communities, transit-orientated development, walkable communities and other related themes. www.tandf.co.uk/journal/alphalist.asp.

The *Scandinavian Journal of Caring Sciences* is a quarterly, peer-reviewed journal emphasizing research “that has a patient, family, and community focus and which promotes an interdisciplinary approach.” Of special interest are “articles addressing theoretical, empirical, & methodological concerns.” www.blackwellpublishing.com/scs.

Citations Received

Otto Friedrich Bollnow, 2008. *Human Space*. NY: Princeton Architectural Press [originally published in German in 1963; trans. Christine Shuttleworth].

The first English translation of Bollnow’s influential work, which “conceives the human experience of space not merely as a philosophical problem but also as an extension of his research into psychology, human behavior, and the conventional domains of architecture: Living in a building, in an apartment, in a house.” One of the first explorations of the “phenomenology of lived-space.”

Alexander R. Cuthbert, 2006. *The Form of Cities: Political Economy and Urban Design*. London: Blackwell.

For good or bad, critical theory dominates much academic and professional discussion today—a fact well illustrated by this urban planner who argues that mainstream urban design theory must be redirected “towards critical theory and spatial political economy.” Cuthbert has little good to say about phenomenological and other related efforts, which he calls grounded in the “cult of the individual.” For example: “Kevin Lynch offers his own eclectic combination of aesthetic choices as to how city design should take place. Christopher Alexander’s ideas are utopian, utterly impractical and require society to be reinvented... [and Bill] Hillier’s models require doctoral-level mathematics to understand them. As a result, the major theorists in the discipline present us with concepts of urban form that are unrelated, largely devoid of any social content and alienated from any serious socio-economic and political base.” The irony, of course, is that Cuthbert’s theory is open to the same sort of critical concerns, yet Cuthbert never “critically” addresses them.

Christopher Day, 2007. *Environment and Children*. London: Architectural Press.

This architect examines how the built environment affects children's health, behavior, education, and development.

Alice T. Friedman, 2006. *Women and the Making of the Modern House: A Social and Architectural History*. New Haven: Yale University Press.

This art historian examines women as patrons of architecture, focusing on such pivotal dwellings as Frank Lloyd Wright's Hollyhock House, Gerrit Rietveld's Schröder House, Ludwig Mies van der Rohe's Edith Farnsworth House, and Robert Venturi's Vanna Venturi House. The emphasis is on "the private passions and struggles that women and men of talent and creativity brought to these projects..."

Melissa Geib, ed., 2006. *Phenomenology and Ecology*. Pittsburgh: Simon Silverman Phenomenology Center.

The four chapters of this volume are edited versions of papers presented at the 23rd annual symposium of Duquesne University's Simon Silverman Phenomenology Center. This was the first time the symposium focused on the relationship between phenomenological and environmental concerns. The four chapters are philosopher David Abram's "Between the Body and the Breathing Earth: On the Phenomenology of Depth Perception;" psychologist Andy Fisher's "To Praise Again: Phenomenology and the Project of Ecopsychology;" philosopher Don Ihde's "Postphenomenology and the Lifeworld;" and EAP editor David Seamon's "Interconnections, Relationships, and Environmental Wholes: A Phenomenological Ecology of Natural and Built Worlds."

Mark L. Hinshaw, 2007. *True Urbanism*. Washington DC: Planners Press.

Hinshaw defines true urbanism as "rich, vibrant, and unpredictable urban neighborhoods" that include mixed uses dense enough to support a variety of locally owned businesses; and range in dwellings that support people in every stage of life and at different income levels.

John H. Lienhard, 2003. *Inventing Modern: Growing up with X-rays, Skyscrapers, and Tailfins*. NY: Oxford University Press.

This historian of technology provides a popular account of "Modern," specifically, attempting "to understand a now-bygone culture by seeing it as the product of new technology." He argues that the "Modern" era ended in the 1950s, though he is uncertain about the new era ahead other than the fact that two of its indications are space exploration and "the fairly

recent unfolding of radical new physics": "Every day we read some new article about super-string theory, loop theory, dark matter, alternate universes, quantum computation, the cosmic anthropic principle, the implications of a highly articulated chaos theory upon our perception of reality, and simultaneity of communication between particles, all backed up with new evidence.... [W]e stand on the threshold of *mystery* in the same way we did in 1900. Once more, our world seems about to become unrecognizably *larger* than it has been. Once more, hope wells up from that great ocean of untapped but inchoate *possibility*. Something is about to happen.... *Modern* is gone... Now we are about to become a new people, no longer *Modern* or postmodern, but something else entirely. We need a word for it. We are about to become *Expanded*." See illustration, p. 1.

Kristine F. Miller, 2007. *Designs on the Public: The Private Lives of New York's Public Spaces*. Minneapolis: University of Minnesota Press.

This landscape architect examines how, for six major New York City public spaces, design influences "their complicated existence." The six spaces studied are: Times Square, Trump Tower, the IBM Atrium, Federal Plaza (once the site of sculptor Richard Serra's *Tilted Arc*), and the front steps of New York's City Hall. Miller concludes that "public space is not a concrete or fixed reality but rather a constantly changing situation open to the forces of law, corporations, bureaucracy, and government."

David Morley, 2000. *Home Territories: Media, Mobility and Identity*. London: Routledge.

This poststructural media and communications researcher examines "the relations between home, family, household, community and nation in the context of a postmodern culture in which domestic or national boundaries have been destabilized by exile, diaspora and migrancy, and by new global communication technologies." The need is said to be a revisionist model of home that is not "existentialist, fixed, separatist, divisive, defensive or exclusive." The standard poststructural "finding fault" commentary and critique but offering few constructive solutions or alternatives; minimal mention of the considerable phenomenological literature on the topic.

Michael E. Patterson & Daniel R. Williams, 2005. Maintaining Research Traditions on Place: Diversity of Thought and Scientific Progress. *Journal of Environmental Psychology*, 25: 361-80.

"In our view, recent critiques [of qualitative research on place] suggesting lack of conceptual clarity and lack of systematic progression results from viewing place research as if it should constitute a single research tradition. Instead, we maintain that it is more appropriate to view place as a domain of research

informed by multiple research traditions. Adopting this latter vantage point puts researchers in a position to see greater coherence and conceptual clarity across the body of place research than recent critiques suggest.” The authors highlight two contrasting “paradigms”: “phenomenological” and “psychometric” (analyses that find ways to convert intangible concepts like preference and feeling into empirical, measurable “data”). A helpful defense of phenomenological work from analytic researchers who sometimes portray the approach as subjective, arbitrary, and vague.

Jenny Quillien, 2008. *Delight’s Muse: Christopher Alexander’s The Nature of Order*. Ames, Iowa: Culicidae Architectural Press.

“My first objective is... to provide a short, accessible, and illustrated summary [of *The Nature of Order*]. Six years of collaboration on the manuscript and countless hours of discussion with Alexander give me confidence that my understanding is true to his original meaning. A second goal is to bring to the fore the basic scaffolding of what we can consider a General Theory. Thirdly, I offer my own interpretations. These are grounded in my background in cognitive science and cultural anthropology, as well as my trials and tribulations of actually trying to implement Alexander’s ideas.”

John Roderick, 2008. *Minka: My Farmhouse in Japan*. NY: Princeton Architectural Press.

This American journalist tells the remarkable story of coming to own a restored 1734 farmhouse on a hill, overlooking Kamakura, the ancient capital of Japan.

Mark S. Rosenbaum, James Ward, Beth A. Walker, and Amy L. Osstrom, 2007. A Cup of Coffee and a Dash of Love: An Investigation of Commercial Social Support and Third-Place Attachment. *Journal of Service Research*, 10 (1): 43-59.

This study “illustrates how six common events that destroy or erode a person’s social support can cause the person to obtain emotional support and companionship in a third place”—i.e., a gathering place outside home or work, in this instance, a Chicago suburban diner. “In essence, third-place patrons match their lost support to their commercial support, thus remedying negative symptoms associated with isolation.”

Julie Stewart-Pollack & Rosemary Menconi, 2005. *Designing for Privacy and Related Needs*. NY: Fairchild.

This book is said to provide “a synthesis of research, theory and practical application to explore and examine the concept of privacy as a function of interior design responsibility. Privacy needs and solutions are examined for residential, health-

care, hospitality, and work environments.” No discussion of what a phenomenological approach to the topic might involve.

Emily Talen, 2008. *Designing for Diversity*. London: Architectural Press.

This planner and geographer examines, through case studies, how “planning and design could be used to support socially diverse places. To understand the possibilities of a design response, I study places that already are socially diverse and suggest ways that the built environment could be leveraged to support their diverse social makeup.”

Kevin Thwaite (with Ian Simkins), 2006. *Experiential Landscapes*. NY: Routledge.

This book is said to examine how “design methodology can be successfully applied to map, analyze and improve the design of neighbourhoods and other community settings.” Emphasizes a “socially responsive approach.”

Michael Wheeler, 2005. *Reconstructing the Cognitive World*. Cambridge: MIT Press.

Drawing on Heidegger, this cognitive scientist develops what he calls an “embodied-embedded cognitive science.” He writes: “If my analysis here is sound, it is closing time for those Euroskeptics in mainstream philosophy of cognitive science who think that continental philosophy has nothing of interest, certainly in a positive nature, to say to cognitive science. But it is also closing time for those continental philosophers who claim that thinkers such as Heidegger have, in effect, presented arguments against the very idea of a cognitive science, concluding that any science of cognition must be in some way, radically misguided, necessarily incomplete, or even simply impossible...”

He summarizes his argument: “I explore the underlying conceptual shape of embodied-embedded cognitive science. Much of the discussion focuses on recent research in AI-oriented robotics, especially evolutionary robotics. Among other things, we will find ourselves propelled headlong into a complex debate over the nature and status of representation as an explanatory primitive in cognitive science, and forced to take a stand on the equally difficult issue of to what extent cognition really is computation. Along the way we shall find abundant evidence that the conceptual profile of embodied-embedded cognitive science is plausibly and illuminatingly understood as being Heideggerian (and thus, non-Cartesian) in form.” A key emphasis: “...how whole, physically embodied agents, including nonhuman animals, achieve successful real-time sensorimotor control in dynamic, sometimes unforgiving environments... [The aim for AI becomes] the design and construction of complete robots that, while embedded in dynamic real-world situations, are capable of integrating perception and action in real time so as to generate fast and fluid embodied adaptive behavior.”

Christopher Alexander's Theory of Wholeness

EDRA Conference Intensive, Veracruz, Mexico, 28 May 2008

Robert Walsh

Walsh is a licensed architect in California; a design instructor at Lawrence Technical University in Southfield, Michigan; and a doctoral student at the University of Michigan's Taubman College of Architecture and Urban Planning. Over 16 years beginning in 1988, he studied and worked with architect Christopher Alexander on an intermittent basis, first carpentering on an Alexander-designed house; then earning a masters degree from Berkeley in 1992; and, last, working as an architect in Alexander's office. Walsh was involved in classes at Berkeley in which the material now published as The Nature of Order was developed and taught in design studios. Walsh has run his own practice since 1994 and is presently researching successful residential high-rise strategies. Photographs courtesy of Kyriakos Pontikis; placemaking map courtesy of Karen Kho. rmwarch@umich.edu. ©2008 Robert Walsh.

The theme for this year's Environmental Design Research Association (EDRA) conference in Veracruz, Mexico, was "Linking Differences/Defining Actions." This theme was in sync with the scope and intentions of an all-day, EAP-sponsored intensive that focused on the work of architect and author Christopher Alexander.

The intensive featured four presentations that sustained a lively discussion throughout the day. As the official commentator, I read the papers before the event and sought to call attention to some of the challenging issues raised by the presentations and Alexander's work. In certain respects, my task proved easier than expected because all four presentations were effectively organized, visually well presented, and thought provoking. At the same time, the audience was attentive, engaged, and generally supportive of Alexander's work.

This is not to say there were no differences of opinion. In such a diverse group of people grappling with the complex issues that Alexander raises in his work, to encounter some disagreement is perhaps inevitable. But in the three conference days following the intensive, in discussions with various audience members, I gained the impression that this range of perspectives was generally positive and appreciated. I will try to capture some of this diversity of viewpoint in this commentary.

Presentation 1: Kyriakos Pontikis

The intensive began with architect Kyriakos Pontikis's "Designing and Making as Unfolding Processes: The Saint Andrews' Christian Church in Olathe, Kansas" (photographs below). Pontikis demonstrated how, in designing and building this church, he and associates Gary Black and Cullen Burda worked to actualize the design principles that Alexander presents in his four-volume *The Nature of Order* (2002-05). This church includes a building complex serving a community of 100 families and features a spectacular sanctuary as well as handsome auxiliary buildings linked together around a generous colonnaded courtyard [also see Pontikis's website: www.pontikisandassociates.com].

Pontikis began by describing how, at the start of the project, he and colleagues spent five days with



the clients, a process during which their desires were clarified and developed into a pattern language unique to the project.

Pontikis then presented a series of images outlining the process of developing the project, first, in terms of the site, then becoming progressively more detailed and differentiated as buildings and interiors were designed. Pontikis demonstrated how, as a connected sequence of unfolding decisions, the form of the building complex arose in response to particular characteristics of the site and to the project pattern language.

As the photograph below suggests, the church interior is a magnificent space, featuring a high, naturally illuminated nave supported by curving concrete trusses that leave the 60-foot-wide interior unobstructed. The trusses are beautiful and unusual, and the audience seemed especially interested in them. Pontikis showed images to explain how engineer Gary Black used finite-element analysis to perform the complex calculations necessary to make these unusual forms feasible. Pontikis explained

how the finished truss form was not the only concern; additional issues involved potential deflections and temporary stresses imposed during erection of the trusses.

Pontikis effectively demonstrated that this building resulted from a process in which creative design and construction were intertwined, interdependent, and continual throughout the project. He also showed how some walls were given added depth by an innovative approach to straw-bale construction combined with an exterior layer of concrete applied once the walls were erected. These innovations in truss design and straw-bale building were refined and developed through practical means that included large-scale models, computer simulations, and mock-ups. Overall, the project appears highly successful, unique, and beautiful.

Commentary

Beginning the intensive with an actual project proved to be an excellent decision because this real-world example gave the ensuing presentations a sense of tangible reality helping to focus and clarify concepts from *The Nature of Order* that might otherwise seem abstract or esoteric. For example, Alexander's concept of a "structure-enhancing transformation" is interesting in the abstract and to see it applied in a real project is quite revealing.

Pontikis showed how he employed a unique pattern language crafted for this specific project and thereby highlighted several issues relating to the use and understanding of pattern languages. Initially, some audience members seemed to restrict use of the term "patterns" to those described in Alexander's original *A Pattern Language* (1977). Although the book presents a thorough explanation of some 250 patterns, all do not apply in all circumstances, nor does the compilation represent all patterns that are possible. For each new project, there are countless possibilities for creating new, useful vital patterns that may vary according to specific environmental, behavioral, cultural, and technological factors.

The sanctuary of Saint Andrew's church is a remarkable space—colorful, well illuminated,



and uplifting with the unique trusses organizing and shaping the space. Some audience members seemed perplexed by the trusses, wondering if something more ordinary might have been more feasible or economical. In response, Pontikis explained how the entire project required careful budget management. He also emphasized that the design team could not have produced these results by first developing a form and then finding a way to pay for it. These trusses were seen as essential to the overall project, and allowances for their importance was made by controlling other project costs.

My own instinct as an architect is that there was something about this beautiful and unusual project that was a bit unnerving because it calls into question whether opportunities to create similarly positive results are missed in many projects that follow a mainstream design and construction process. It might be easier to question the results Pontikis shared than face the more challenging question that the project raises: Can architects do a better job of shaping and caring for the built environment by taking responsibility for the actual construction instead of only the initial design?

Some audience members seemed to resort to a more sophisticated version of this argument by suggesting Alexander's method should be linked to other alternative approaches—for instance, the standardization of building products advocated by architect and researcher John Habraken. In my view, Habraken pursues an agenda that, while valuable, may not be compatible with wholeness as sought by Alexander. Habraken has written of the structure of the ordinary and at first seems interested in similar issues. But his approach focuses largely on modular systems of interchangeable, standardized components, in contrast to Alexander's efforts, in which unique details are crafted in relation to the immediate context. In a sense, the two approaches are polar opposites.

Pontikis's work was encouraging because it demonstrates how Alexander's principles and methods might be successfully applied by other architects, thus demonstrating their usefulness and power independently of Alexander as a direct participant. In *the Nature of Order*, Alexander goes to great lengths to prove the objectivity of his insights.

Whether other researchers repeating an experiment produce similar results is a highly relevant question in scientific inquiry. In this sense, Pontikis's work can be seen as a noteworthy, independent confirmation of many of the principles and methods articulated in *the Nature of Order*.

Presentation 2: Jenny Quillien

In her "Myopic Algorithms," Jenny Quillien offered a valuable perspective influenced at least in part by her background in anthropology as well as her work with Alexander in editing *The Nature of Order*. Her presentation emphasized the sequential processes of unfolding wholeness, which is an important and subtle issue. Quillien recently published a book—*Delight's Muse: On Christopher Alexander's The Nature of Order* (2008)—her own effort to condense Alexander's lengthy work into a more manageable overview.

As Quillien emphasized, one of Alexander's central claims is that wholeness arises through an incremental, iterative process in which the integrity or existing life in a structure is progressively enhanced through an organized series of transformative steps. Quillien examined a number of developmental sequences from several sources, including art, biology, and architecture.

Commentary

During the discussion that followed Quillien's presentation, she and I came at the issue of process and judgment from somewhat opposing perspectives. As an architect, my central concern is guiding the process of design development and making places. Hence, I am most interested in how I make this process more effective as I apply it. For me, there are two key issues: discernment and contextual relationship. I see the design sequence as a means to organize and to focus my own judgment via an effective process, yielding an effective outcome. I view the concept of an unfolding sequence as a tool that underlies and guides judgment, which takes place in relation to a context that is also changing and developing.

Quillien's approach was oriented toward considering these questions as phenomena to be examined and evaluated, at what seemed to me a step

removed from the actual process of making. There is certainly value in this approach, though it took me some time to appreciate her emphasis. Perhaps our differences arose from the contrast between an architect's struggle to make new places and an anthropologist's interest in discerning how existing places come into being? The examples Quillien chose—for instance, the development of a fetus or origami animal—tended to be self-contained and, seemed to me to overlook the complementary concerns of conscious judgment, revision during the process, and relation to a larger context.

In essence, I called into question whether the processes described by Alexander could be accurately portrayed as “myopic,” since at least in my experience, these processes, when successful, invariably depend upon and take into account the larger context. Even in the case of a developing fetus, the womb environment and the health of the mother are important concerns that influence the pattern of the child's development long after birth.

I also questioned whether algorithms were necessarily an accurate characterization of Alexander's model of process, since judgment is a factor at every step resulting in unique and potentially unpredictable outcomes, whereas “algorithm” suggests a predetermined sequence of manipulations producing a single result. From the perspective of an outsider examining a finished artifact, the process may appear as an algorithm, but, from the builder's perspective, something more dynamic and unique appears to be at work.

This criticism, however, is not to say that I disagree with Quillien's fundamental point: That these unfolding sequences are extremely important and one of the central innovations underpinning *The Nature of Order*. My concern was that there was more to the process than sequences alone. After several lively exchanges, I believe we came to agree that these developmental sequences are indeed very important as are also awareness of context and judgment taking place at every step of the process.

Upon further reflection after the intensive, I became clearer regarding another issue that Quillien's presentation brought forward—namely, the question of why this concept of a sequence of development is

valuable in comparison with typical mainstream architectural practice.

Today, mainstream practice generally assumes that the form of the proposed building crystallizes quite early in the process: the architect supposedly has a flash of inspiration and then the design is there; all that remains is to draw and construct it. In this approach to design, architects are considered to have completed the bulk of their work prior to the onset of construction. For example, a typical AIA construction contract pays an architect 70 percent of his total fee for the work that is done prior to the start of construction. If the architect's original vision is out of line with real-life circumstances of the site, any revisions are considered to be defects requiring change orders and additional expenditure.

In contrast to this conventional approach, the sequential model of process that Quillien emphasized represents something radically different. The aspect of Alexander's work she highlighted proposes a view of process in which the final outcome is not known at the outset. Rather, the assumption is that a carefully crafted sequential process can result in a more harmonious order.

If we use Pontikis's work as an example, his church design was actualized through a sequential process in which important decisions were made as the project developed, in response both to what had gone before and also to the larger context. For example, the placement of church parking was decided early because of the large-scale impact it would have on the project and the relationship that parking would have to the larger site context and to the surrounding community. This decision was also considered in response to the question of ideal placement of the church itself, even though the church at that point had not been designed.

In the conventional architectural approach, one option would be to impose onto the landscape a generic parking template that, in the abstract, might be considered ideal in terms of efficiency. Instead, Pontikis's parking configuration reflected the lay of the land and the sequence of arrival that would most enhance the “attending-church” experience and the placement of the building complex in the landscape. Pontikis's gently curving parking area may have cost more than a strictly rectangular lot, but then

again the curved shape might require less earth moving and retention, since the design scheme relates better to the existing contours. In addition, the placement of the parking lot pointed to the placement of vegetation that further enhanced the emerging central courtyard, the sequence of arrival, and the parking lot itself.

The result of these evolving design steps is a place that is substantial and well situated—a place that belongs in its setting instead of appearing to have landed there arbitrarily.

Presentation 3: Karen Kho

In her “Deepening the Art of Placemaking,” planner Karen Kho compared Alexander’s efforts with the conceptual model of effective places used by the Project for Public Spaces (PPS), a New York City organization founded by the eminent urban researcher William Whyte.

One difference between the work of PPS and Alexander’s is that PPS has codified its approach to urban place making into a unique diagrammatic model organized around four key attributes: (1) so-

ciability; (2) uses and activities; (3) comfort and image; and (4) access and linkages. This model is a helpful conceptual tool that organizes a complex range of concerns into a format that can be easily apprehended, especially by the lay public. [the model is available at: www.pps.org/info/placemakingtools/downloads/place_diagrams].

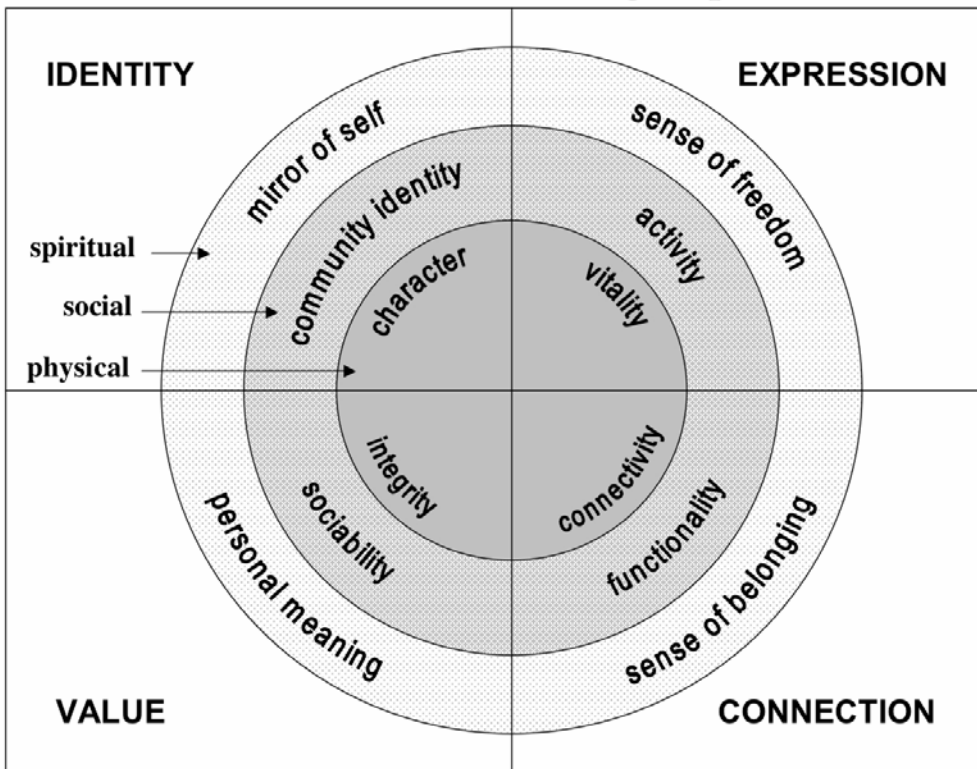
There appear to be significant parallels between the PPS model and Alexander’s conception. To facilitate the comparison of these two approaches to placemaking, Kho combined the two perspectives in a model she termed the “Holistic Placemaking Map” (see drawing below), which incorporates a diverse range of considerations and is organized around four themes: (1) identity; (2) expression; (3) value; and (4) connection. The ensuing discussion focused on better understanding the implications of this diagram.

Commentary

Kho’s diagram raised the intriguing question of whether Alexander’s work can be effectively distilled into a unified graphic model. What made an understanding of Kho’s diagram somewhat challenging for me and perhaps others was that it seemed a considerable conceptual and applied leap to transform the PPS model into a composite model addressing two potentially different points of view. Instead, it might have been easier for audience members to grasp if an intermediate model portraying only Alexander’s conception might have been presented first.

Nevertheless, Kho’s placemaking map does raise a number of insightful questions, such as how do Alexander’s 15 properties of order relate to personal and group identity? Further, when considering Alexander’s approach, questions regarding which aspects are tangible or intangible can make under-

Holistic Placemaking Map



standing potentially more difficult, and Kho's map suggests ways to organize these concepts in a way whereby they are distinct yet unified.

Although I am uncertain that I understood the detailed aspects of Kho's model, I found her work to be a worthwhile effort to organize Alexander's complex body of principles into an easily understood diagram. The ensuing discussion suggested that there might be further refinements, just as this model was a refinement of the original PPS effort. Kho's presentation, like Quillien's, represents an effort to make Alexander's work more easily approachable and hopefully will be similarly beneficial to a wider audience.

Presentation 4: David Seamon

David Seamon's "Threeness, the Triad, and Christopher Alexander" compared Alexander's work with the conceptual model of wholeness developed by the British philosopher J. G. Bennett, especially in his four-volume *The Dramatic Universe* (1956-1966). Bennett's work, like Alexander's, is concerned with recurring patterns, order, and resulting wholeness. In Bennett's efforts, however, the understanding of wholeness is organized around "the qualitative significance of number." In this sense, according to Seamon, Bennett's work can be described as a "phenomenology of wholes in which each integer—1, 2, 3, 4, and so forth up to 12—points towards a different mode of togetherness and belonging in regard to the thing studied."

Being previously unfamiliar with Bennett's work, I am not sure that I can do it justice here, even though it is highly thought-provoking and a point of view I would like to explore further. In essence, Bennett has developed sequences, systems, and attributes that are both internally consistent and related to one another in a progression that appears to have value locally as well as in terms of larger structures. For purposes of presentation, Seamon focused largely on the system associated with the number three—what Bennett terms the "triad"—which has to do with action, change, and relationship.

After providing a brief overview of Bennett's theory, Seamon proceeded through a step-by-step analysis and comparison of six different three-part

sequences proposed by Bennett and how each of these are expressed in Alexander's conceptual and design efforts. One of Bennett's conclusions is that a phenomenon exhibiting all six of these sequences may come to take on the significance of what Bennett calls an "event," which, if I understand it correctly, refers to a permanent contribution to shared human understanding—something momentous and of lasting consequence.

After examining these different aspects of Bennett's theory and associations with Alexander, Seamon raised the question as to whether Alexander's work has the makings of an "event." To clarify further, the term as used by Bennett points to a situation or process the widespread impact of which may not be perceived for some time, possibly decades or longer in becoming fully evident. Perhaps it is too early to tell if Alexander's work will come to be regarded as an event—as an important step forward in human understanding of lasting impact. If Bennett's theory is correct, however, it appears there is a very real possibility that this result will be the case.

Commentary

I hope I have made it clear that Seamon, in comparing the work of Bennett and Alexander, was not suggesting that one takes precedence over the other. My sense was that Seamon was using Bennett's ideas as a springboard for examining aspects of Alexander's work as they relate to the broader context of life, meaning, and understanding. I found this approach refreshing because it provided a context for exploring Alexander's work that did not require contrasting and comparing it against current practices in architecture, a strategy invariably resulting in conflict and dispute.

At the same time, this approach and the question of whether Alexander's body of work constitutes Bennett's event seems to suggest that Alexander's efforts do represent a new direction, and one the value of which could take time to become apparent. I also came away from Seamon's presentation with the sense that perhaps people interested in Alexander's work are participating in some way in a much larger event beyond us, arising from a shared desire to make the world somehow better.

The discussion of Bennett's work provided an interesting framework through which to examine many of the concepts discussed during the earlier presentations. Each of the three-part sequences presented by Seamon seemed somehow connected with Alexander's overall process. It appeared that these sequences might be seen as part of larger repeating cycles. Bennett's theory of wholeness through number also seemed to have the advantage of being a detailed intellectual structure that relates abstract and concrete structure, process and outcome in a unifying model. In this sense, discussing this theory seemed to have the effect of encouraging constructive critique of Alexander's work.

Concluding Remarks

As a practicing architect, educator, and researcher who has studied and worked with Christopher Alexander and run an architectural practice, I have had the opportunity to see how a wide range of people approach Alexander's work, which I have wrestled with myself as I continue to explore architecture as a discipline in which shifting practices, technologies, materials, and processes are rapidly transforming how people shape the built environment.

In my closing comments, I encouraged attendees to continue to explore Alexander's work and to grapple with it in terms that make sense for each person *in an individual way*. I noted that I had read drafts of *The Nature of Order* and the published version several times in the last 20 years and that these re-readings have yielded new insights, in conjunction with efforts to apply this understanding in teaching and making architecture.

My own perspective seems somewhat different from the way others at the intensive were approaching the work of Alexander in that I am actually not that concerned with predicting its place in history.

Unlike David Seamon, for instance, I am not comfortable speaking of *The Nature of Order* as a "masterwork" or even as a theory. Partially, this is out of respect for Alexander and the sense I have that as a former student it is not my place to be passing judgment on his work.

My hesitation also arises from a sense that focusing on questions of importance of Alexander's work is secondary to actually using and understanding it. Seamon may be entirely correct in his assessment that Alexander's efforts represent an "event," in the terminology used by Bennett. Further, I believe it was this sense of importance that stimulated so much productive discussion in the Veracruz intensive. Nevertheless, my interest is somewhat different in that I prefer to focus my energy on learning what I can from Alexander—discovering new insights and perspectives that can be applied to my own teaching and making.

To illustrate this point, I recounted the story of a man who looked up and pointed out the moon, his finger raised. A crowd of people gathered about him and marveled at the man and his finger, discussing how wonderful he was and which finger he had used and why. These things, however, hardly matter. Rather, what is important is seeing the moon.

My point is that "seeing the moon" is a matter of seeing for oneself, and I encouraged people at the Veracruz intensive to explore Alexander's work and to consider how it relates to one's own experience. In a sense, this was the basis for what we shared at the intensive: Four people approaching Alexander's work from four different perspectives, each valid and worthwhile, each grounded in individual insights and experiences. I hope this diversity of views was useful in illuminating Alexander's efforts and also in encouraging everyone to continue to explore those efforts further.

Second Letter from Far South

John Cameron

This essay is the second of a series of “occasional letters” that retired educator John Cameron will be writing from his home on Bruny Island, just off the southeastern coast of Tasmania, the island state to the south of mainland Australia (Cameron’s first letter appeared in the winter 2008 issue of EAP). Over the last two years with the help of volunteers, he and his life partner Vicki King have planted some 2,500 native tree saplings on their 55-acre property as a means to recreate wildlife corridors and habitat. One of Cameron’s research interests is Goethean science as a phenomenology of the natural world—a theme that comes through powerfully in this second letter. jcameronvking@optusnet.com.au. © 2008 John Cameron.

It was high tide when we first spied the Bruny Island waterfront house and immediately decided to buy it. When Vicki and I returned several months later to take possession, we were greatly surprised to find a broad sandstone intertidal shelf stretched before us. I had grown up in an Australian inland town, but my heart had been captured by a wooded bay with two sandy beaches my family visited regularly. Even as an adult, I less liked rocky than sandy shorelines, but in view of all the other wonderful qualities of our new home, I was prepared to overlook this stony shortcoming.

When I later explored our shoreline at low tide, I discovered a great variety of oddly shaped features and bands of color within the rock. Flattened, pock-marked spheres several feet in diameter sat up on the flat shelf like huge ancient mushrooms in a field. Further down, there were clusters of circular indentations with raised rims reminiscent of miniature impact craters. The rocks were incised with long lines and outlined with salt crystals, sometimes with rounded heads eerily reminiscent of rock engravings tens of thousands of years old that Vicki and I had encountered in Central Australia. Weaving along the edges of these formations and into the interiors of shallow caves were thin green bands some quarter of an inch thick, sometimes barely discernible, sometimes appearing as a vivid horizontal stripe that accentuated the concave form of the amber hollows.

Soon after we moved to our new home, we invited Irmgard, a redoubtable German woman in her eighties living on her own in a nearby village, to come for a visit. Among other things, she was en-

chanted by the rock structures on our shoreline, finding them unlike her stretch of sandy beach and headland only a few kilometers to the north. Intrigued, she asked questions about their origins that I could not answer. My geological training 40 years ago could not provide plausible explanations, nor was I able to find anyone who could help me. What I could do right away, though, was to pursue my investigations through the approach of Goethean science. [1]

I had previously made several forays into Goethe’s “delicate empiricism” by intuiting the qualities of rock outcrops in Cornwall, England, and in the Blue Mountains behind Sydney. [2] I was keen to continue the process now that I had been presented with such intriguing formations so close to our new home. Surprisingly, what had originally been for me one of the least attractive features of our new place was transformed into a gift!

The first feature I noticed was the “sea-green line.” I wandered the foreshore until I found a cluster of bright orange-red rocks, each bearing the line within them. I made a series of visits with sketch pad and pencil, concentrating on a rock of sinuous shape echoed by the curve of the line within it. I sat with the rock and line, settling myself by watching the cormorants dive for fish in the Channel and the salt breeze ruffling the waters. I then proceeded through the four stages of Goethean science that I have worked to master over the years. [3]

To use physicist Henri Bortoft’s phrase, Goethe’s way of science aims at “a conscious participation in nature.” [4] The aim is to develop one’s imaginative and intuitive capacities to the point where knower and known become part of the whole-

ness of nature. My previous idiosyncratic efforts had yielded a sense that the “gesture” of these rocks, to use the Goethean term for the intuited expression of a thing’s essential nature, had to do with their form of *giving* to the world. Not only do they give materially—nutrients for plants, shelter for plants and animals, structure to the land—but they also give energy to the surrounding life forms in subtle and hidden ways. Despite the considerable differences between jutting granite tors on the English Cornish coast and unassuming sandstone bones of the dry Australian woodlands, I have retained a heartfelt appreciation for the unspectacular, patient, and long-lasting participation of rocks in the world.

One evening, I was sitting quietly with one of the rocks in the midst of such still grayness that it felt as though the sky would dissolve into misty rain. The sea-green line was very much more evident in this low light, and I repeatedly sketched the form of the rock and line within it. The “gesture” that revealed itself on the page was a gentle cup-shaped form of soft receptivity.

As I sketched, exploring what was arising, I moved into a stage that Goethean scientists sometimes call “seeing with the heart”—in other words, working to be less concerned with visualizing the phenomenon than with opening my emotional sense toward it. There is a responsibility that comes from encountering another being from the inside. Sooner or later, one must ask how he or she can be of service to that being. On previous occasions, I had only a diffuse experience of this stage, but this time I “heard” the suggestion that I should become more like the rock—I should find a way to become receptive, allowing the wind and water to work on me.

A few months later, Irmgard brought me a geological field guide for southern Tasmania, which I eagerly read, then phoned author David Leaman to clarify my understanding. [5] I was surprised to learn that the sea-green line was of volcanic origin, indicating a period about 220 million years ago when this land was close to the South Pole. Volcanoes erupted and streams, carrying ash and lava, deposited their sediment in thin beds greenish in color because of high iron, magnesium, and chromium content.

This discovery ignited my imagination. Every first-year geology student learns to construct geological histories from field work, but what I was doing was different. I was much more personally engaged, making the effort for these rocks that I had sat with over the weeks, patiently drawing and redrawing, opening myself to them. I visualized this place as a cold, barren land similar to some of the sub-Antarctic islands, with distant volcanoes rumbling and rivers choked with ashen sediment. I saw how the thin beds were compacted by millions of tons of sand over millions of years, their greenish hue marking their fiery origin. After the sea exposed the rocks in cliffs, the wind set to work, blowing sand grains into crevices, hollowing out arched and vaulted chambers with delicate green stripes.

The Australian novelist Patrick White once said that the work of the writer is “to imagine the real.” [6] This aim could also be said to be the central task of the Goethean scientist. I see great potential complementarity between intellectual knowledge gained through standard scientific geology and intuitive knowledge of rocks facilitated through Goethean looking and seeing.

“Exact sensorial imagination” is the term sometimes used to describe the second stage of Goethean science—in other words, becoming intimately familiar with the real-world development of a phenomenon from inception to disintegration and then recreating that unfolding in one’s imagination. Visualizing such a process is a more straightforward matter for the life cycle of an animal or the growth sequence of a plant. Geologically, however, it is a matter of interpreting a rock’s “lifespan.” Imagining this history is greatly enriched by the sort of knowledge that the geological field guide provided me. The art is in bringing that knowledge to life so that a mere chronicle of events millions of years ago becomes imaginatively inhabited.

A second surprise emerged in my conversation with David Leaman. Unlike the sea-green line, our “mushroom rocks” were not ancient. As I had sketched these rocks, I had wondered whether, long ago, they had been created in the sea bed as organic forms, perhaps as algal or sponge mounds. In fact, they came about through the interaction of salt and iron in weathering. As the sea steadily eroded back

the rocky coastline, saline waters dissolved the iron in sediments and precipitated it out in concentric bands. The spheres cemented together by the iron-rich solution were harder than the surrounding rock and remained as remnant “mushrooms,” while the softer bed was reduced to sand by wind and waves. Eventually, the sea dislodged the spheres, leaving behind the rounded craters dotting the shore.

There was something about the alchemy of salt and iron acting together that seized my interest. I thought of the iron, born in the fire of the volcano, captured in sediments for 220 million years, working its way out of the rock under the influence of the salt, in turn working its way in from the sea. I thought of the human body—its fluids’ vital salt balances, the blood’s essential iron. I wondered how salt and iron interacted within us. What of the “iron man” in human character or the “old salt”?

As I learned more of the geology of the shoreline formations, there were lessons about inhabiting time as well as place. To grasp imaginatively the story of the sea-green line requires the combination of felt appreciation of its form and qualities along with the visualization of events over a vast expanse of time. To know more about the mushroom rocks, one must understand that major events affecting rock form can occur in a few thousand years—a mere blink of an eye in geological terms. The sea-green line and mushroom rocks are connected in the sense that the volcanic iron laid down in the former eventually became the iron contributing to making the latter. These days when I sit on the rock platform, I look at the rusty nodules and cavities, realizing they relate to two entirely different time scales.

Perhaps a similar imaginative leap is required to grasp some of the consequences of projected climate change. Estimates of species loss from global warming range from a fifth to a half by 2050, a magnitude I find staggering. Over the past two years, Vicki and I have identified 60 species of birds on our land. I visualize mounting wall photographs of each, then marking a thick red slash through 20 (a third as roughly the midpoint between a fifth and a half). These red-lined species would disappear, not just from our corner of Bruny Island but from the face of the earth.

When I make this exercise even more personal, I imagine with a heavy heart that one of the 20 species might be the White-faced Heron, the subject of my first letter from Far South concerning the depth and complexities of relationships with other species. In reality, Tasmania is projected to suffer less severe effects than other regions from climate change, and the White-faced Heron is less threatened than many other bird species. My point is that a visualization exercise like the one I lay out here gives the abstract concept of species loss some emotional weight.

We live with two radically different time scales. On one hand, the fossil record illustrates the three-billion-year history of life on earth and the gradual but eons-long process of species coming into being, adapting to change, and disappearing. On the other hand, there is the hugely accelerated rate of extinction over the past century, with worse to come. Some of the invertebrate species that may be lost in the next few decades have been in existence for hundreds of millions of years.

But the fossil record also shows that, about 30 million years before the sea-green line appeared, the planet suffered a cataclysm sometimes referred to as the “Great Dying,” when over half of all species vanished from the earth, perhaps because of an asteroid collision, massive volcanic activity, or some other cause. Life on Earth only recovered slowly over the ensuing 30 million years. The fact that relatively abundant life gradually returned does not imply that we can be complacent that our planet can cope with the havoc that humankind wreaks. We can’t stop asteroid collisions or volcanic eruptions, but we can reduce environmental degradation. My larger point is that very gradual evolutionary change has always coexisted with rapid transformation.

I muse on these matters as I sit by the rocky shore. Looking closely, I see where the green line becomes paler next to some of the mushroom rocks—an indication that the iron has leached out and reprecipitated. I ponder what it might mean to allow the wind and waves to work on me. How do I explore more deeply the relationship between “hidden giving” and “soft receptivity?” The shore’s juxtaposition of salt and iron intrigues me. I note how the sea has transformed an old iron post into the texture

of petrified wood. Now that the sea is just warm enough for a bracing swim, I feel the beneficial effect of saltwater on my skin, and think of the salt working its way into my body to meet the iron that I have taken in from the soil via the vegetables in our garden. Likewise, iron and salt combine in the seaweed we use to mulch garden beds.

My immediate challenge is bringing these ways of viewing the world more deeply into my everyday awareness and actions. Because I've been occupied with them more recently, my geological investigations have become uppermost in my mind and conversation. A few months ago, Vicki quite rightly took me to task after I had taken some friends down to the shore, pointed out the rock formations, and presented various theories to explain their origin. I didn't allow these folks time just to be with the place and appreciate its features. The fiasco of my "guided scientific tour" provides an example of the practical difficulties of bringing intellectual and intuitive knowing together. Even for someone like me—deeply interested in Goethean science—it is easy to let my mind fill with cerebral speculations about geology to the detriment of quietly allowing the rocks to speak for themselves. It is easier, too, during a social visit, to talk about geological history and engage people's curiosity rather than to allow time for more subtle qualities to emerge in silence.

These are slow processes that I have embarked upon. It takes a commitment of time to pursue them, yet there seems to be less and less time available. Trying to combat weeds and erosion on our land in years of drought has brought physical and mental stress. Living more simply here, we also feel keenly the general imperative that humanity is running out of time to avert the worst effects of climate change and that we all must do what we can, *now*. Our experience in seeking to live more sustainably will be the topic of a future letter. Suffice to say here that this effort requires the patience to embark on long-term changes, while accepting the need for rapid transformation.

The rocky shoreline has taught me much over the past two years. Just as observing the heron brought to the fore a need to develop poised attentiveness, so has closer encounter with the sea-green

line and the mushroom rocks brought forth possibilities for being more receptive and generous, not to mention some much-needed rocklike qualities—solidity, stability, and resilience. The learning potentially goes far beyond, however. The natural world provides metaphors and inspiration but not as passive, mute lessons. Heron and rocks are active, creative presences in their own right in the world.

At the moment, my reach—for a "conscious participation in nature" where the land works on me as I work on the land—exceeds my grasp. The more I open myself to the natural world on Bruny Island, the more I become aware of the habitual ways I close myself off in daily life. Fortunately, the subtle power of "delicate empiricism" and the majesty of natural place are a source of wonder and support as I struggle with human frailty and fallibility.

To inhabit this place is to inhabit the various time scales that are at work here, from hundreds of millions of years down to hours, minutes, and seconds. This manner of seeing requires imagining the real—giving more emotional attention to discovering what has already transpired and what is likely to occur. This manner of seeing means living in "deep time" as well as in "deep present" with the hope that, sooner or later, the rocks will reveal themselves to the attentive heart. This manner of seeing means seeking to be of service to this place and to its immense inner forces that are so much greater than one's own being. This manner of seeing I may not yet be capable of sustaining. But I have been given much guidance and am truly grateful.

Notes

1. On Goethean science, see Henri Bortoft, *The Wholeness of Nature: Goethe's Way toward a Science of Conscious Participation in Nature* (Lindisfarne Press, 1996); and David Seamon & Arthur Zajonc, eds., *Goethe's Way of Science: A Phenomenology of Nature* (SUNY Press, 1998).

2. See John Cameron, "Place, Goethe, and Phenomenology," *Janus Head*, 8.1 (summer 2005); available at: <http://www.janushead.org/8-1/Cameron.pdf>.

3. I draw these four stages of Goethean science from Isis Brook, "Goethean Science as a Way to Read Landscape," *Landscape Research* 23, 1 (1998).

4. Bortoft, *The Wholeness of Nature*; see note 1.

5. David Leaman, *Walk into History in Southern Tasmania* (Leaman Geophysics, 1999).

6. I am grateful to my doctoral student Bill Hartley for bringing my attention to this phrase from White.