



Environmental & Architectural Phenomenology Newsletter

Vol. 2, No. 2

Spring 1991

Interest in EAP continues to grow, and the newsletter has been featured in such diverse publications as *Humanistic Psychologist*, *Design Spirit*, *American Planning Association Newsletter*, and *International Society for Environmental Ethics Newsletter*. If you have suggestions for publications that might wish to run a description of *EAP*, please let us know. Also, if you have colleagues or friends who you think might be interested, send us their addresses and we will forward a complimentary copy.

This issue of *EAP* includes regular features as well as student work, a book review, research and design updates, and three poems. In the first issue, we suggested that poetry might be an appropriate medium for presentation in *EAP*. In this issue, we publish poems by Miles Richardson and Jill Yesko.

Most of the illustrations for this issue are drawn from *Responsive Environments*, a workbook in urban design published in England in 1985 but not well known in the United States. This book is a valuable complement to other interpretive approaches to urban design and is reviewed in this issue. The book includes many drawings that are useful in clarifying issues for beginning design students. One example is the cartoon on this page that attempts to illustrate the importance of the built world in sustaining human life.

We are also pleased to include in this issue of *EAP* several examples of student work, both written and graphic. The center pages present drawings done by Kansas State University architecture students Yuan Lin and David Ting, who use Thomas Thiis-Evensen's *Archetypes in Architecture* (see *EAP*, spring and fall 1990) to interpret buildings on the KSU campus. We conclude with a description of the world of a sailor on the Great Lakes, written by Mark Lappan, a third-year undergraduate geog-

raphy major at the University of Ottawa. Lappan wrote his essay for a spring 1990 course, "Nature, Space, and Time," taught by geographer Anne Buttmer.

Often, students bring an innovative and lively outlook to experiential interpretation, exactly because they are newcomers, and this freshness is present in Lin and Ting's conceptual graphics, as well as in Lappan's written description. Please, if you are a teacher and receive any student work that seems insightful phenomenologically, send it along so we might consider publishing it.



EVENTS, PUBLICATIONS, AND PROGRAMS

The 30th annual conference of the **Society for Phenomenology & Existential Philosophy** will be held at Memphis State University, Memphis, Tennessee, October 17-19, 1991. This conference meets in conjunction with the annual meetings of the *Society for Phenomenology & the Human Sciences*.

Dates for the submission of papers to both meetings have past but information on attending the conference can be had from: Lenore Langsdorf, Department of Speech Communication, Southern Illinois University, Carbondale, IL 62901 (618-453-2291). To become a member of SPEP, send \$25 to: Stephen H. Watson, Philosophy Department, University of Notre Dame, Notre Dame, IN 46556.

Scholars and designers involved with the past three conferences on **Built Form and Culture** are sponsoring a weekend workshop in Miami, Florida, 17-20 October 1991. The theme of the workshop is *Beliefs, Intentions and Built Forms*. For further information, contact: Graeme Hardie, Box 7701, School of Design, North Carolina State University, Raleigh, NC 27695-7701 (919-737-7114).

The **Journal of Wild Culture** is published by the Society for the Preservation of Wild Culture, a non-profit Canadian organization devoted to the "enhancement of our ecological future through imaginative and artistic means." Features include articles, reviews, photographic essays, and presentations through other artistic media. The emphasis is new ideas in ecology, including environmental politics, bioregionalism, gender issues, urban gardens, humane architecture, deep ecology, and so forth. The American subscription rate is \$19 annually. Write: SPWC, 158 Crawford Street, Toronto, Ontario M6J 2V4, Canada (416-588-8266).

Schumacher College, named after the author of *Small is Beautiful*, seeks to facilitate education in touch with the profound changes taking place in Western culture. Its residential programs are led by scholars-in-residence and typically last five weeks. Topics for the 1991 program include deep ecology, science and religion, social and rural development,

the arts, personal and societal transformation, and sustainable economics. Scheduled scholars include **James Lovelock**, **Hazel Henderson**, **Rupert Sheldrake**, and **Theodore Roszak**. Write: The Administrator, Schumacher College, The Old Postern, Dartington, Totnes, Devonshire, TQ9 6EA, England (tel. 0803-865934).

In the early 1970s, architect **Christopher Alexander** began to collect early religious Turkish rugs. He amassed one of the finest collections in the United States, and 75 of the rugs were recently on display at San Francisco's DeYoung Museum in the exhibit, "A Foreshadowing of 21st Century Art: The Color and Geometry of Very Early Turkish Rugs."

Alexander organized this exhibit himself and has also written a text to accompany the exhibit. This text, with the same title as the exhibit, will be shortly published, along with 82 color photographs and over 400 black-and-white illustrations, by Oxford University Press.

MEMBERSHIP NEWS

Miles Richardson is Fred B. Kniffen Lecturer and Professor of Geography and Anthropology at Louisiana State University. He writes: "I try in my research and writing to address the question of how culture comes to be in its places. You mentioned that your newsletter accepts poetry as a way of letting things appear. I'm trying to write what I guess to be poetry." In this issue, we publish one of his poems.

David Saile, architect and organizer of the Built Form and Culture conferences, is now Director of the Center for the Study of the Practice of Architecture at the University of Cincinnati. The Center aims to develop a deeper and richer understanding of the nature of architectural practice, particularly through historical, theoretical, and practical angles. Write: School of Architecture and Interior Design, University of Cincinnati, Cincinnati, OH 45221-0016 (513-556-3415).

Jill Yesko is a doctoral student in geography at Syracuse University. Her research interests involve travel and notions of the "remote" and the "exotic." Her dissertation, an interpretation of descriptive texts of Argentine Patagonia, will examine how people imagine landscapes and how these imagined landscapes are conveyed to the lay public through travel narratives. Yesko also writes poems, one of which is in this issue of *EAP*. Address: Geography Department, 343 H. B. Crouse Hall, Syracuse University, Syracuse, NY 13244-1160.

CITATIONS RECEIVED

Warwick, Fox, 1990. *Toward a Transpersonal Ecology*. Boston: Shambhala. ISBN 0-8773-533-6. \$ 16.95, softcover.

This Australian philosopher provides an overview and defense of "deep ecology," which, in part, is said to include "as expansive a sense of self as possible in a world in which selves and things-in-the-world are conceived as processes" (p. 197). The book includes discussion of Heideggerian approaches to environment and environmental ethics.

J. Douglas Porteous, 1989. *Planned to Death: The Annihilation of a Place Called Howdendyke*. Toronto: University of Toronto Press. ISBN 0-8020-2661-3.

This geographer explores the 20th-century demise of his native English village, irrevocably changed in character mostly because of modern economic development imposed by private, regional and national interests. The book includes an innovative chapter on "The Living Village: A Geoautobiography." Porteous explains that "in the absence of oral history...and the almost total lack of documents, my own recollections must serve as a basis for understanding the nature of village life immediately before the changes that were to come in the 1960s" (p. 90).

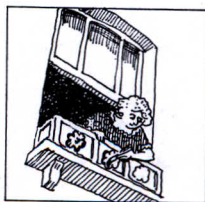
NOTEWORTHY READINGS

Theresa S. Smith, 1989. Ojibwe Persons: Toward A Phenomenology of an American Lifeworld. *Journal of Phenomenological Psychology*, 20 (2):-130-144.

This article is a phenomenological effort to become an insider to the world of the Ojibwe--the aboriginal inhabitants of northern Ontario and the modern-day natives who continue to live in a "substantially traditional manner" (142). Smith is critical of most conventional anthropological approaches to traditional peoples' worlds. These approaches, she argues, too often "objectify" the people and worlds studied. Smith writes:

...to speak of the 'object' of study is already to have begun a reduction of subjects and their meaningful lived experience into piles of data. These mounds of data--these constituting subjects and their lifeworlds--are sifted, examined, and filed according to an index which the observer, consciously or not, places between herself and the 'material' of her study. Here, Indians are theists; there, they are animists; and somewhere in between, they are totemists. Of course the problem with treating people and experiences like file folders is that the people sometimes get up and walk away from their assigned niches, and the experiences tend to become lost somewhere between the drawers" (p. 131).

...when we enter the Ojibwe lifeworld (or that of any American Indian culture/religion) we are indeed walking--literally and figuratively--on a ground that is at once familiar and uncharted. It is only when we discern the essential structure of this ground that we may begin to feel secure. And we may only see the structure through and in careful attention to the phenomena that constitute experience" (p. 141).



Johann W. von Goethe, 1990. *Goethe's Botanical Writings*. Woodbridge, CT: Ox Bow Press [reprint of first English edition, University of Hawaii Press, 1952].

The appearance of this set of writings, translated by Bertha Mueller and back in print after 40 years, is an important phenomenological event. Originally published in journal form from 1817 to 1824, these essays—though written a century before phenomenology as a way of knowing existed—present penetrating discussion on seeing and understanding, particularly in terms of phenomena in nature (see accompanying box).

In the last decade, there has been a growing awareness of the value of Goethe's way of science for existential phenomenology, especially in regard to studying natural phenomena like light, color, the movement of water, plant and animal form, and so forth. These essays, particularly those on method, give much useful guidance on doing phenomenology practically. The book is divided into three parts: "On Morphology," "On His Plant Studies," and "On General Studies."

A crucial text for all environmental and architectural phenomenologists to have in their libraries.

GOETHE ON EFFORTS TOWARD SEEING AND UNDERSTANDING

As soon as we observe a thing with reference to itself and in relation to other things, forswearing personal desire or aversion, we shall be able to regard it with calm attention and form quite a clear concept of its parts and its relationships. The further we continue these observations, the more we are able to provide links between isolated things, and the more we are able to exert our powers of observation.... [I]f the observer is to apply this... sharp power of judgment in examining the mysterious relations of Nature, if he is to heed his steps in a sphere in which he is almost alone, if he is to guard against all premature conclusions, if he is to have his goal ever in mind without allowing any circumstances along the way, be it advantageous or disadvantageous to his theory, to go unnoticed; if he is to be his own severest critic even in situations where he cannot easily be disproved by others; if he can be distrustful of himself even in his most zealous efforts: the severity of the demands made upon him are unmistakable and likewise the impossibility of their complete fulfillment, regardless of whether the demands are made by himself or others. And yet these difficulties, one may undoubtedly say this hypothetical impossibility, must not deter us from doing the utmost within our power.

from "The Objective and Subjective
Reconciled by Means of the Experiment"

Phenomenology and the Human Sciences, September, 1990, vol. 15, no. 3.

This issue is devoted to "Phenomenology of Place." Bruce Bigelow provides a review of Edward Soja's *Postmodern Geographies* (Verso, 1989) and David Harvey's *The Condition of Postmodernity* (Basil Blackwell, 1989). Jim Cheney writes an extended critique of E. V. Walters' *Placeways: A Theory of the Human Environment* (University of North Carolina Press, 1988), and David Seamon and Robert Mugerauer's *Dwelling, Place and Environment: Toward a Phenomenology of Person and World* (Columbia University Press, 1989). Cheney explains:

My particular interest in these two volumes stems from an interest in bioregionalism, the view that we should locate and understand ourselves individually, politically, and culturally by reference to the bioregions in which we live. Bioregionalism is not to be understood as precluding other forms of identification and political engagement, but it is arguably the most basic form they take since *who* we are, both individually and as a people, is most fundamentally a function of *where* we are. It is clear that questions of dwelling, place, and human dwelling in places are central to the development of bioregional theory and practice. It is a concern for the development of such theory and practice which informs the present review" (p. 6).

The journal in which these reviews appear is the publication of the Society for Phenomenology and the Human Sciences. To become a member, send \$10 to: Prof. Gisela Hinkle, Sociology Department, Bricker Hall, Ohio State University, Columbus, OH 43210.



FIGURE 24

Sketches by Goethe of various flower parts, among them nectaries of *Aconitum* and *Delphinium*.

A PLACE IN THE WILD

Noël Bennett, Jim Wakeman, & Michael McGuire

Editors' note: These three authors work through the non-profit organization Shared Horizons to develop a research and design protocol appropriate for building on fragile natural sites. Bennett is an artist and writer; Wakeman, an environmental engineer; and McGuire, an architect. The following work was funded, in part, by a grant from the National Endowment for the Arts. In 1991, Shared Horizons plans to sponsor an international design invitational for built structures on fragile natural sites.

Our research and design work seeks to forge a new protocol for integrating architecture and other built structures into fragile natural sites. At the heart of our study is a newly recognized philosophy of nature that can be called *ecocentrism*—the belief that all life forms have equal inherent worth and rights of existence.¹ Ecocentrism can be distinguished from *anthropocentrism*—a perspective in which nature is viewed as a resource for fulfilling human needs, and decisions give human needs priority over the needs of other species.

The Western world, partly because of its Judeo-Christian heritage, is predominantly anthropocentric, and American architecture reflects these values. Building design is most often driven by money, time, codes, liability of the architect, client comfort, architect and client's egos—all largely anthropocentric energies.

The first step in creating a more ecocentric architecture is to differentiate between human-occupied places and fragile, natural places and to recognize different architectural approaches as appropriate for each. From this perspective, anthropocentric architecture would be appropriate in urban or other built settings where ecosystems have already been altered or destroyed. In contrast, ecocentric architecture would be appropriate for structures built on fragile, natural lands.

Perhaps the most critical decision in designing ecocentrically is to determine whether a fragile site can sustain a permanent built structure. To answer this question, one must consider the fragility of a site in relation to the proposed use. Three considerations can help assess a site's fragility:²

- *rarity*—the site's ecological, geological and visual uniqueness;
- *vulnerability*—the site's susceptibility to human damage, including that occurring in the building

process;

- *recuperability*—the site's possibility of recovery unassisted by people.

Once the fragility of a site is determined, the purpose of the structure can be evaluated to determine the amount of damage the structure will inflict on the site. For instance, a ski cabin to entertain friends has an anthropocentric purpose. Human needs are the primary concern and the place would require parking, multiple sleeping accommodations, and a sizable common area. We can assume that the structure would not be minimal, human energies would not be directed to preserving the natural environment, and significant damage would result if built on a fragile site. On the other hand, a more resilient site might be able to handle the ski cabin.

Typically, anthropocentric considerations do not provide the means for an architect to design a structure that connects with and protects the natural order. In fact, there are very few models for ecocentric design, since so few truly integrated structures occur in our country. We conclude that an ecocentric architecture requires a major shift in design philosophy that incorporates the following beliefs:

Respect for Natural Order

The natural order, despite our high level of technology, governs human inner workings and psyche. The natural order holds important lessons for life and design, but wild places where we can learn those lessons are disappearing rapidly. In spite of what anthropocentrism might wish, the natural order cannot be recreated by humankind, and wild places require our urgent protection.

Dwelling in Nature

To learn from the wild, we need to be in its continued close proximity. By staying in one place, we can come to know the plants, animals, and geological forms of a specific ecosystem.

By staying in one place, we are confronted with the true extent of damage caused by our dwelling in nature and can change our behavior to minimize that damage. Dwelling on a fragile, natural site requires a shelter that protects nature while keeping us open to its lessons. A permanent structure, gently fitted into the land, may affect the footprint of the building but keeps all else pristine.³

Voluntary Simplicity

If we wish to dwell in nature, we do not want the built structure to destroy or obscure the natural order for which we have come. Even if we can afford more, we design a minimal structure to meet our vital needs and bring to it only basics. We leave the "developed" world behind.

Concealed Presence

The beauty of nature is endangered by our cultural propensity toward individuality. In architecture, this requirement translates into highly visible structures. An ecocentric approach encourages egolessness and urges us not to impose our idea of beautiful architecture (regardless of how magnificent we personally consider it to be) on others and on the land. Ecocentric architecture views nature's beauty as an essential part of the natural order to be preserved.

Overall, this set of beliefs, collectively applied to building in the wild, suggest a human willingness to adapt to nature rather than to force nature to adapt to human beings. There is a willingness to understand, simplify, and to do without some things that in a more "developed" context might be required. Our project sets out to create an architectural model that actualizes this set of beliefs. Toward this goal, we have identified three ecocentric principles that guide the design of a structure toward integrating with its fragile, natural site.

- The structure has minimal visual impact and blends in with nature;
- The structure has minimal physical impact and is pared down to architectural essentials that are inlaid in the natural site;
- The structure opens us to the site and facilitates a direct relationship with the natural world.

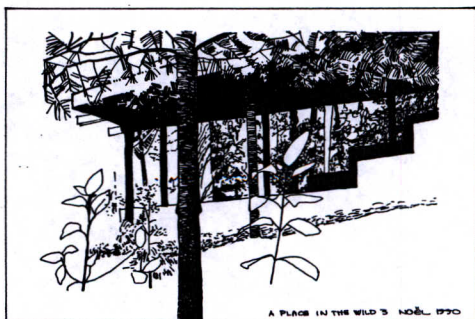
To design an integrated structure brings into focus the dynamic relationship between architectural form (minimal visual impact), process (minimal physical impact), and function (intimacy with the natural world). To integrate a structure with a fragile

natural site, these three design principles need to work together and be satisfied simultaneously. Each principle may require a different design emphasis, but no one can be given priority over the other two. The final aim is to preserve the natural order of a place, and a gentle building process must be a key component.

The importance of these three design principles can be illustrated in regard to the applicability of underground structures for low-recovery, high-elevation sites. In Colorado in 1984, for example, a professor of architecture built a solar-earth structure at an elevation of 9,200 feet. First, earth moving equipment carved out a place for the structure and piled the dirt nearby. Then, seeking to minimize construction impact, the architect allowed only one tree to be removed from the site. For the same reason, he permitted cement-delivery trucks to come only to the edge of the building from where a crane transported cement as needed. After the structure was complete, it was covered, using earth-moving equipment.

The overall result? Despite the architect's many precautions, the process of earth moving and storage damaged an area about three times the footprint of the building. Six years later, the damaged area had made little progress in returning to its original natural state.

This example raises questions as to how much damage and how much recovery time are appropriate for fragile, wild sites. How much is too much? How long is too long? Should we cause damage that will not recover within our own lifetime or use time? How much damage to the natural order around our structure negates what we come for?



For example, pointing out that recovery time for natural sites above 8,500 feet may be as long as 500 to 1,000 years, ecologist Jan van Wagtenonk concludes that no humanmade structure should be built above that elevation.⁴ And in regard to the impact of underground structures on the natural site, architect Bob Easton asks, "What do you do with the displaced earth?" Underground homes may look like a paradise once re-landscaped with vegetation, but Easton warns that "it's all an illusion." The natural order is delicate, and new plants invade bulldozed areas, preventing original vegetation from reestablishing itself. Replanting with native species can only create a human order, which is often a parody of the earlier natural pattern. "Whatever you do in your project, don't promote myth without substance," Easton concludes.⁵

In our work, therefore, a main aim is to find conceptual and practical models for an integrated architecture that incorporates process, form and function. To this end, we have built a physical structure and identified ten other structures that work to balance these three design dimensions. From these structures we have identified recurring architectural elements and building and dwelling processes that we call "Dynamics of Integrated Architecture." Written in the format of Christopher Alexander's *Pattern Language*, these dynamics include such "patterns" as *Camp First*, *Animals as Advisors*, *Single Entrance Path*, *Small Footprint*, *Perfect Fit*, *Essentials Only*, *Outdoor Room*, *Nature's Language*, and *Build Quietly*. These dynamics provide conceptual and practical guidance through the following five stages of design:

- Getting to Know and Protecting the Land
- Identifying the Building Site
- Designing a Minimal Permanent Structure
- Implementing the Design
- Sustaining the Vision

For further information on *Shared Horizons* and the dynamics of integrated architecture, write to: *Shared Horizons*, P. O. Box 1175, Corrales, NM 87048. *Shared Horizons* would especially like to hear about built structures that support and express *eccentric process, form, and function*.

Notes

¹B. Devall, *Simple in Means, Rich in Ends: Practicing Deep Ecology* (Salt Lake City: Peregrine Smith, 1988).

²J. van Wagtenonk, "The Determination of Carrying Capacities for the Yosemite Wilderness," paper presented at the National Wilderness Research Conference, Fort Collins, Colorado, July 1985.

³A portable tent could also be considered appropriate shelter for fragile sites. Though their portability means damaging multiple locations and access paths, Roderick Nash, author of *Wilderness and the American Mind*, considers the main benefit of temporary habitation to be psychological: "The nomad makes a statement: I am like the wind, I come and go. I don't make a permanent impression on the landscape. I am in the natural community, not outside or above it." Nash goes on to comment that even a temporary camp affects the site, but he feels that the impact of skilled campers is slight (R. Nash, personal correspondence, 2 October 1990).

⁴J. van Wagtenonk, personal communication, 8 June 1990.

⁵B. Easton, personal communication, 4 April 1990.

HERBERT SPIEGELBERG (1904-1990)

Philosopher Herbert Spiegelberg was perhaps best known for his masterly *The Phenomenological Movement: A Historical Introduction* (1971), the last section of which continues to be one of the best introductions to "The Essentials of the Phenomenological Method." Spiegelberg's work is particularly admirable because, unlike so many commentators, he sought to *practice* phenomenology as well as to talk about it. In his *Doing Phenomenology*, he presented methods and techniques that would allow the student to enter into human experience firsthand and discover description and generalization in a radically empirical way. Spiegelberg believed that genuine moments of phenomenological discovery involved the "pristine innocence of first seeing." He wrote:

Phenomenology begins in silence. Only he who has experienced genuine perplexity and frustration in the face of the phenomena when trying to find the proper description for them knows what phenomenological seeing really means.

READING A MAP

*Even if you had not sought out the hidden spaces
I would have guided you to them*

*We regard the body as we do a map
The fluid contours and limpid valleys
soft, yielding and ever unfolding
describe a landscape
Here is a place for resting
Over there a site of battles hard fought
But there is more to our human geographies*

*If you could gather up all your instruments
All the compasses, chronometers and rulers
You would find that the equation you set out to solve
would still elude you*

*Love, like time, does not run in a straight line
That is our great failing*

*The longing for repetition--
The need to calculate and resolve--*

*Abandon the search
Retrace the map*

--Jill Yesko



VISTAS MAKE YOU THINK

*Do you dream a landscape into a poem
and fill it with subconscious mutterings
so that what's out there loses out
to what's in here? If you do,
you may have a poem, but is that what you want?*

*Stop, Miles. Stop and look, and let it be seen,
from this hotel window, here in the Zona Rosa,
the gray strata of an industrial city
that carries the name of Monterrey.*

First,

*The street below: the ever expectant taxi stand,
the tree valiantly green in its square of earth,
OPTICO MEDICO, with credit cards on the door, and
BANCO DEL ATLANTICO, its credit more selective.*

Next,

*across the roof tops cluttered with the chaos
of alleged air-conditioners, the parallel, multi-lane Avenidas:
and buses, and trucks, and sedans, and VWs too many to
count; and
straight-jacketed between the arterial Avenidas, the Santa
Catarina, a river that never flows except to flood.*

Then,

*a stretch of stores and houses that cannot
decide if they belong to the Mexico across the Avenidas
or the struggle shaping space behind it. A futuristic church,
the A frames of its roofs meeting at odd angles,
liberates further confusion.*

And third,

*without sign, Avenidas, or church, the squatters:
Unspoken brown—but to the right a declarative blue and over
there a whisper of a green—they climb the horizon;
packed thicker up a ravine, stretched thinner on a precipice,
the steeper their mountain the less they can claim,
until they trail the ridge in search of place.*

So,

*three strata, possibly four, but really,
when you think, only two:
Here, the taxi stand, the tree,
OPTICO MEDICO, and credit;
there, across the Avenidas with
the river squeezed between, passed
the futuristic church and its uncertainty,
up the mountain side to the struggle.
Here, in name, the city, Monterrey:
there, in anonymity, you and me.*

--Miles Richardson

RESPONSIVE ENVIRONMENTS: DESIGNING FOR AN URBAN SENSE OF PLACE

Ian Bentley, Alan Alcock, Paul Murrain, Sue McGlynn, & Graham Smith. *Responsive Environments: A Manual for Designers*. London: The Architectural Press, 1985. ISBN 0-85139-967-3, \$33.95 soft cover.

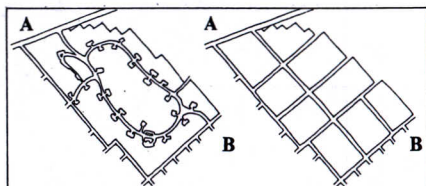
Paul Murrain, one of the authors of this innovative workbook in urban design, was a keynote speaker at the 1990 EDRA meetings at the University of Illinois, Urbana Champaign. In his talk, Murrain emphasized the need for environment-behavior researchers to incorporate social, economic, and aesthetic demands in regard to urban design. *Responsive Environments*, which he wrote with colleagues at the Joint Center for Urban Design at England's Oxford Polytechnic Institute, presents a practical effort to provide such a holistic vision for the city. The authors, all designers, seek to integrate behavioral, economic, social and aesthetic needs in regard to particular people in particular places.

To hold in sight and reconcile these many, often conflicting, dimensions of place, the authors provide a set of practical design guidelines that contribute to *responsive environments*—i.e., places that provide their users "with an essentially *democratic* setting, enriching their opportunities by maximizing the degree of *choice* available to them" (p. 9).

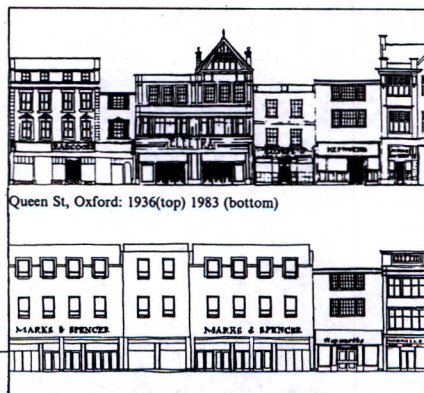
The authors argue that, design-wise, a physical environment can affect this degree of choice in terms of seven qualities of the built and human environment: (1) *permeability*, (2) *variety*, (3) *legibility*, (4) *robustness*, (5) *richness*, (6) *visual appropriateness*, and (7) *personalization*. To each of these seven qualities, the authors devote a chapter comprised of two parts: First, a discussion of how, through the physical environment, the particular quality contributes to choice; and, second, a set of field-work and design-conception sheets that describe practical ways for designers to support the quality through environmental design.

Permeability relates to the way that a design affects where people can go and cannot go within a city district. The authors insist that the urban designer must always consider permeability first because it involves pedestrian and vehicle circulation

within the city district as a whole. The greater the number of alternative routes through an environment, the greater people's freedom of movement and, therefore, the greater the responsiveness of that place. In the two layouts in the figure below, for example, the large-block pattern on the left offers only three alternative routes between A and B, while the small-block layout on the right offers nine different routes.

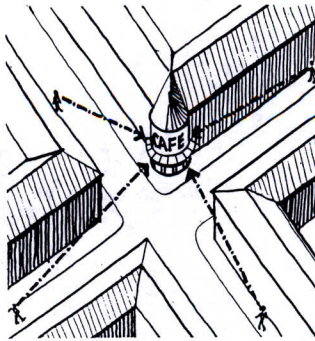


Variety, the second quality of a responsive environment, refers to the range of uses that a place provides, for example, housing, shopping, employment, recreation, and so forth. Easily accessible places are of little use if their choice of experiences is limited. The authors' aim is to maximize the variety of uses for a given project by, first, demonstrating how one can assess the level of demands for various uses and, then, determining the widest mix of uses feasible economically and functionally.



The third element of a responsive environment is *legibility*, which relates to the ease with which people can understand the spatial layout of a place. Drawing largely on Kevin Lynch's *Image of The City* (1961), the authors provide practical ways whereby the designer can determine and enhance the perceptual clarity of the paths, landmarks, boundaries, and so forth that have emerged through consideration of permeability and variety.

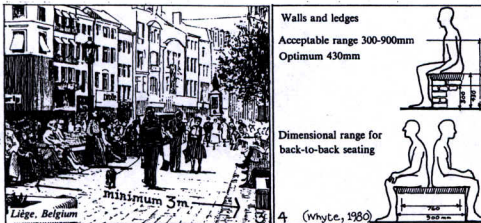
Permeability, variety, and legibility all refer to larger-scale physical elements that contribute to the urban district's overall spatial order and sense of place. The authors next move to the scale of individual buildings and groups of buildings. Important here is *robustness*, which describes buildings and outdoor spaces the design of which does not limit users to a single fixed use but, rather, supports many different purposes and activities. To design for robustness is "to make...spatial and constructional organization suitable for the widest possible range of likely activities and future uses, both in the short and long term" (p. 10).



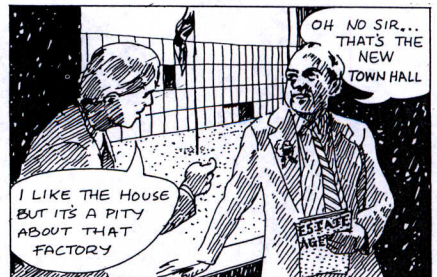
believe that a city hall *should look like* a governmental building or that a row of walk-up flats *should look like* homes.

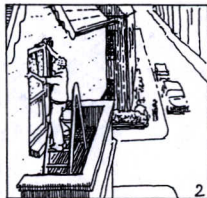
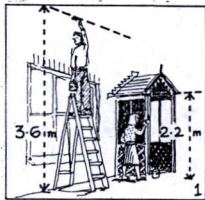
The authors' last two qualities focus on details of buildings and open spaces: *richness* involves ways to increase the choice of sense experience that users can enjoy (experiences of touch, sound, light, and so forth) while *personalization* refers to designs that encourage people to put their own mark on the places where they live and work. In the last

chapter of the book, the authors demonstrate the practical value of the seven-step approach by presenting their design for a large inner-city development in Reading, England.



Once the general appearance of individual built elements is tentatively decided, one next considers *visual appropriateness*—the way in which the design physically can make people aware of the choices the place provides. A crucial design consideration here is the development of visual cues that express directly the levels of choice already provided by the first four qualities. In other words, the authors





COMMENTARY

One way in which *Responsive Environments* contributes to a qualitative, descriptive approach to environmental experience and design is the authors' definition of environmental success on the basis of human choice. This perspective is valuable because it provides a way to speak of the physical world as an active contributor to the quality of human life. The authors suggest that modernist architects like Le Corbusier and Gropius, even though they held high social and political ideals, often failed to create vital places because they did not understand how the physical environment helped sustain human life and community:

The tragedy of modern design ...is that designers never made a concerted effort to work out the *form* implications of their social and political ideals. Indeed, the very strength of their commitment to these ideals seems to have led designers to feel that a concentration on form itself was somehow superficial. Form, they felt, ought to be the *by-product* of progressive social and political attitudes. But in adopting this stance..., designers failed to realize that the humanmade environment is a political system *in its own right*: try walking through a wall, and you'll notice that it is the physical fabric, as well as the way it is managed, that sets constraints on what you can and can't do. Multiplied to the scale of a building or—crucially—a city, this is indeed a political matter (p. 9).

The authors of *Responsive Environments* are by no means the first designers to emphasize the built environment as an integral contributor to human life. What is innovative about their work is their effort to present a conceptual framework in applied form that might actually foster this place-people intimacy. To counter the criticism that their approach is constrictive and arbitrary, the authors emphasize that they provide a creative process for place design rather than a predefined recipe: "ideas are intended as springboards for design, not as straight-jackets on the designers imagination" (p. 11).

In fact, the actual designs presented in the book, including the master plan for the Reading project, seem somewhat contrived economically and socially, and the aesthetic impact is, overall, lackluster. In spite of these shortcomings, however, the book is an important contribution to design as place making. Presently, what are needed are provocative experiments that seek reconciliation between the many difficult opposites that architects, designers, and planners face. *Responsive Environments* is one such experiment and, the authors are to be thanked for a brave effort to reconcile theory and practice.

In an urban-design studio or an environment-behavior seminar, one can imagine that the instructor might assign a design problem that students explore, first, through the approach of *Responsive Environments* and, then, through other urban-design models—for example, Christopher Alexander's *New Theory of Urban Design* (1987), Jane Jacobs' *Death and Life of Great American Cities* (1961), Oscar Newman's *Community of Interest* (1980), and so forth. Each conceptual approach would provide students with yet another vision whereby to foster urban place making. The resulting range of awareness, especially in terms of similarities and contrasts, should help students become more flexible, both in terms of programming and designing. Books like *Responsive Environments* help widen students' base of understanding and envisioning. In turn, this expanded base might move students' design work in directions that would be out of sight otherwise.

D. Seamon

A LEFOWORLD ON WATER: HOME AND JOURNEY ON THE GREAT LAKES

Mark Lappan

From the Gulf of St. Lawrence to the head of Lake Superior we find them—the beautiful, box-shaped vessels called *lakers*. These ships carry their bulk cargoes of grain, coal, and iron ore along the two-thousand-mile marine highway that runs between the Atlantic Ocean and interior North America. These *lakers* were specially developed for the sailing conditions found on these waters and are quite different from the ocean-going cargo ships that dock in salt-water ports. The *lakers* are distinguished by their flat sides, wheelhouse in the bow, long, open deck, and engine room in the stern.

The Great Lakes, in the totality of their size and history, are the most majestic lakes in the world. Separately, they are giants—vast sea-sized waters moving out to distant shores beyond the horizon. One, Lake Superior, is the largest fresh-water lake on the earth. Together, these five lakes form a chain of inland seas, the size and unity of which staggered early explorers. These men could not believe that the huge water bodies were lakes and kept testing for salt water, thinking that the whole chain must form the ocean that would guide their passage to Asia. After centuries of settlement, however, the early explorers' awe of the Great Lakes has softened into modern-day acceptance. People see these lakes, live near them, and use them. But their value is taken for granted and even neglected. They are seldom seen for what they are: one of the world's great natural wonders and a lifeworld for thousands of people, including the *laker* crews.

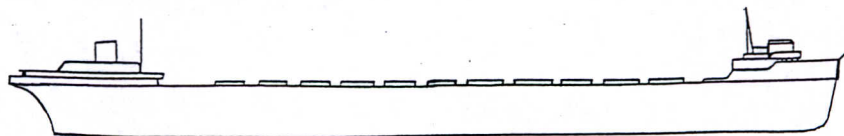
I know these lakes because I have spent many summers travelling them on the *Montrealais*, a *laker* my father captained. As the end of school approached each year, I looked forward to going aboard and traveling the lakes. This essay describes some of my experiences. In my mind, each lake, river, canal, and port has a symbolic meaning

because of physical and experienced characteristics. Starting with the St. Lawrence River—the water body closest to my home in Cornwall, Ontario—and progressing to Lake Superior—the water body farthest away—I will take you on a *laker* journey.

First, there are the St. Lawrence River, the Welland Canal, the Detroit River, the St. Clair River and the St. Mary's River. These are the places where I feel most protected and secure because the land is visible and sometimes almost touchable. If an emergency arises, you know that you can swim ashore. In some places, the water is so shallow that the ship could not submerge.

When we move through a canal or river channel, I stay up the whole time required to pass through—usually about twelve hours. My body adjusts to this rhythm because these are the hours that must be routinely kept if the ship is to sail through smoothly and safely. I usually sleep as the vessel sails on a lake, even in the day time, and this is so for two reasons: First, there is much more to see—people and settlements—while on a river or canal; and, second, there is little to see on the lake except the peaceful water, which often evokes a sense of serenity.

This sleeping pattern is part of a larger routine. For example, a complete voyage from my local port near my hometown in Cornwall, Ontario, to a destination in Lake Superior's Thunder Bay takes four days. If the *Montrealais* passes Cornwall at midnight, 00:00hrs, we reach Lake Ontario around noon the next day. At midnight, we move through the Welland Canal and by 10:00hrs the next morning enter Lake Erie. By midnight, we've reached the Detroit River and enter Lake Huron at 8:00hrs on the third morning. Next comes St. Mary's River at 23:00hrs., Lake Superior at 06:00 hrs. and our destination, Thunder Bay, at midnight, 00:00hrs on the fourth and last day.



Keep in mind that these travel times are average, and weather conditions and seaway traffic may cause delays. In addition, specific departure times are regularly different, thus, let's say, we pass Cornwall at 12:00hrs. (noon) instead of 00:00hrs. (midnight). Now, our sleeping schedules are entirely reversed. I find that it takes about one day for my biological rhythm to readjust.

The specific day of the week has little meaning aboard ship, since it operates continuously and sailors must work as their help is required. There is a rigid daily eating schedule in effect on the ship, and breakfast is served between 07:30 and 08:30hrs.; lunch, between 11:30 and 12:30hrs.; and supper, between 17:00 and 18:00hrs. During these times, a cook serves the meals. At other times, food is available on a self-serve basis.

A crucial routine for a successful voyage involves the twenty-four-hour clock, which is used to determine "estimated time of arrival" (ETA). Navigation is entirely dependent on EDT because it is used to determine the time that a vessel will arrive at locks, narrow channels, ports, and other points of heavy use. If, for example, two vessels approach the St. Lawrence River's tight Brockville Narrows from opposite directions and the ETA of one is off by twenty minutes, there is some chance of a collision and the two ships will need to be very careful. By using ETA, there is much less chance of miscommunication and accidents among vessels.

One of the most enjoyable qualities of sailing on a laker is the frequent sense of relaxation and peace. To leave home is to leave troubles far behind. The ship moves slowly—maximum speed, 15 mph. With water all around and a shoreline barely visible, there is nothing a person can do. Sometimes, this feeling of serenity transforms itself into isolation, and you feel helpless. There is a feeling of thankfulness when you reach port because you have arrived safely and can return to the more "routine world" on land.

Once in port, the ship unloads its cargo, which can take as long as two days. Off-duty sailors go into town to stock up on supplies and perhaps find their way to a drinking binge.

But this time in port is minimal in relation to the ship's overall routine. The mechanized cargo-

handling techniques used on the Lakes today greatly reduce the hours in port and allow vessels to spend more time at sea. And this is how I like to think of the lakers: snoring along in the open lake, rising a little to the long swells, with the sea gulls and clouds overhead.

There are good-weather days when the crew works on deck in the sunshine, but there are also grey days when a heavy sea pounds the ship and the sky overhead is bleak. When stormy skies develop, especially in November, the crew starts to wonder how vicious the weather might become. In 1966, the freighter *Daniel J. Morrell*, upbound in Lake Huron, was caught in a November storm. The ship snapped in two and sank before an SOS could be sent. Of a crew of thirty-three, only one man was saved. Of all the lakes, Superior is most feared because of its size and depth. Storms and bad seas are the greatest risk sailors face each time they step aboard.

In the course of a year, the Seaway vessels ply back and forth many times. Sailors learn to recognize the peculiarities of each lock and channel, even though these features may all seem much alike to the casual traveller. One tall-tale story of the Great Lakes tells of a drunk chief engineer who, bottle in hand, collapsed into his bunk as his ship reached a lock. A week later on the return voyage, the engineer came to and heard the sounds of that same lock. "What!" he exclaimed. "We haven't moved out of here yet?"

This story illustrates, albeit in exaggerated form, how the "space" of the lock has become a "place" for the engineer. Though he did not see the lock, he knew its sounds and instantaneously recognized where he was.

Most people today don't get the chance to travel long distances by water. I've been fortunate to spend a good portion of my life—about one-tenth, as I calculate it—on the water, which I love so much that sometimes I feel that I was born at sea. Thanks to the Great Lakes and the *Montrealais*, I have come to know a lifeworld on water and some of the rewards (and dangers) it has to offer.

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