



This issue includes membership news, book reviews, and essays. Books discussed are architect James Steele's *Architecture for People: The Complete Works of Hassan Fathy* and designer Stewart Brand's *How Buildings Learn*.

We are also pleased to include two essays by naturalist Paul Krapfel, whose perceptive book, *Shifting*, was featured in the spring 1992 issue of EAP. We conclude with an essay on regionalism and place by Donald Snow, Executive Director of Northern Lights Institute in Missoula, Montana.

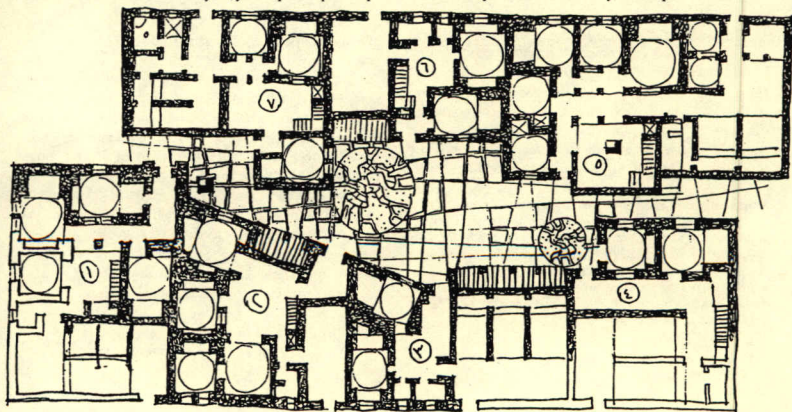
CONFERENCES

The annual conferences of the Society for Phenomenology and Existential Philosophy (SPEP) and the Society for Phenomenology and the Human Sci-

ences (SPHS) will be held conjointly at the University of Colorado at Denver, 8-10 October, 1998. SPEP Contact: M. Bower, Drawer 61, Philosophy Dept, Earlham College, 801 National Road West, Richmond, IN 47374-4095. SPHS contact: M. LaFountain, Sociology Dept., State University of West Georgia, Carrollton, GA 30118 (770-836-4589).

The 17th annual Human Science Research Conference will be held 14-16 June, 1998, at Sheldon Jackson College in Sitka, Alaska. The focus is "human dimensions impacted by the interfaces of heritages and cultures in a postmodern world." Contact: International Human Science Research Conference, Sheldon Jackson College, 801 Lincoln Street, Sitka, Alaska 99835 (907-747-5226).

Below: A sketch by the Egyptian architect Hassan Fathy of a pedestrian street for the unfinished village of New Baris (1967), which was to be built at the Kharga Oasis in the Egyptian desert. The plan illustrates how brilliantly Fathy was able to create interconnected houses, each with its own individual courtyard, yet still provide private space. See the review of Steele's book on Fathy's work—p. 4.



MORE DONORS TO EAP, 1998

As we did in our last issue, we would like to thank the following persons who have contributed more than the base subscription rate for 1998. Without your support, we could not continue. Thank you!

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STEFANOVIC RESPONSE TO DRN

Design Research News, the newsletter of the Environmental Design Research Association (EDRA), recently published a commentary by architect Thor Mann on the 1997 annual EDRA meeting held in Montreal. Mann was strongly critical of past "phenomenological" sessions at EDRA and lauded the fact that there were fewer such sessions at the Montreal meeting.

Ingrid Leman Stefanovic, frequent EAP contributor and professor of philosophy at the University of Toronto, wrote the following response to DRN editor Jon Sanford.

Dear Mr. Sanford:

In your latest issue of *Design Research News*, Thor Mann writes a "Travel Report" presenting impressions of the EDRA 28 conference in Montreal. He invites comments, and I would like to respond specifically to his evaluation of the "tide of contributions of 'phenomenological' investigations" that he suggests "seems to have abated somewhat."

I remind you of Mr. Mann's comments:

Two years ago, it [phenomenology? phenomenologists?] struck me as being at the same time severely political correct, critical of anything remotely resembling "positivist" research standards and uncritical of their own criteria for significance, relevance, acceptability of findings let alone claims of interpersonal validity. This time, it was actually possible for people like [environmental aestheticist] Art Stamps to unabashedly confess to strictly positivist stances without being booed out.

At the Montreal meeting, I organized a workshop on "Rethinking place and placelessness: phenomenological reflections" (1998) also, organized similar sessions on phenomenological themes in past years.

As far as I am aware, at none of these meetings was positivist research "booed out" by phenomenologists. For many phenomenologists, positivism is necessary but not sufficient for research of human behavior. If they have been "critical of anything remotely resembling 'positivist' research," that criticism, typically, has meant to suggest that perhaps quantitative methods can be usefully *supplemented* by qualitative, phenomenological research.

All sessions I have organized have been well attended by audiences I have judged to be enthusiastic and intrigued by phenomenology, not simply because it was "politically correct." (I would like to think that EDRA members are, in any event, more than mere sheep, following any lines of political correctness, no matter where they might lead.)

I believe that our sessions were so successful because participants appreciated having the opportunity to discuss *rigorous*, qualitative research methods that could add to the findings of standard quantitative, positivist studies. I use the word "rigorous" intentionally. Despite Mr. Mann's condemnation of phenomenologists as "uncritical of their own criteria for significance," the philosophical foundations of phenomenology demand a rigor of which many are unaware. For those who are sceptical of this last statement, I invite them to read Edmund Husserl's *Ideas or Logical Investigations*, in order to get a taste of the genuine challenges of originaive thinking that phenomenology offers.

Finally, let me say that I am particularly sorry to read Mr. Mann's statements about phenomenology within the context of the EDRA meetings. I know that he is not alone in his views. That phenomenology was ever "politically correct" at EDRA meetings is certainly a surprise to me.

Nevertheless, one of the reasons that I have enjoyed organizing phenomenological sessions at EDRA is that it has seemed to me that such an open, interdisciplinary setting offered a genuine opportunity for participants to dialogue beyond the narrow parameters of their own methods and areas of specialization. Through genuine listening to one another, we learn. I would hope that EDRA members would follow no tides of political correctness but that they

would continue to be fully and rigorously over the years.

Your sincerely,

Ingrid Leman Stefanovic
Stefanov@chass.utoronto.ca

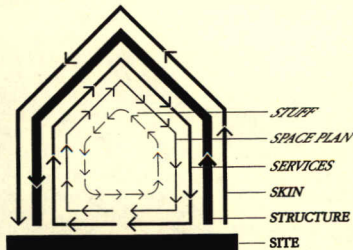
ITEMS OF INTEREST

The **International Human Science Research Newsletter**, published by the Psychology Department at Seattle University, is now on the World Wide Web: www.seattleu.edu/artsci/departments/psy/ihsr.htm.

The **Environmental Writing Institute** will take place 20-25 May, 1998, at the Montana's Teller Wildlife Refuge, 45 miles south of Missoula. The program is sponsored by the Refuge and the University of Montana and will be led by naturalist/author Rick Bass and 14 other nature writers. Contact: Environmental Studies Program, Rankin Hall, Univ. of Montana, Missoula, MT 49812 (406-243-2904).

Stonecrop is a regularly published catalogue of books about natural history. Each catalogue lists over 200 books arranged by such topics as "home and community," "gardening," "trees," "land notes," and "poetry of the earth." The catalogue also includes interviews and a "news forum." 2785 N. Speer Blvd., #148, Denver, CO 80211 (303-964-0966).

Below: Stewart Brand's "Six S's." "Because of the different rates of change of its components, a building is always tearing itself apart." See the review of Brand's *How Buildings Learn* on p. 6.



MEMBERSHIP NEWS

Ryan Drum is an herbalist and biologist who lives on Waldron Island off the coast of Washington. He writes: "Thank you for composing a very interesting fall 1997 newsletter. The content is a delight and positive provocation. The project pieces [on furniture making] touched my own recent reworking of my cabin roof lines—edges, fascia, and erratic projections/whimsies. Our 42 inches of surprise snow last December damaged the composition roll-roofing surface. That provided me with impetus to make some complicated structural improvements. I had been considering these changes for twenty years, reluctant to fault or fix my original work in spite of obvious design failures.

"My oldest son (19 years old) had to come back home (he was born in the house) and help me both with the woodwork and the emotional chore [of change]. Doing the work together was a great joy, so this little 900-square-foot, five-room (all different levels) cabin is still an organic work in progress.

"We roughly word-designed a fourth-story observation booth/crow's nest construction in the proximate future..., even though we are already built almost on the highest point of the island.

"Matthew Day's article on home and well-being [in the same issue] certainly agrees with my own belief and apparent observations on my patients' presenting respective sickness(es) and their respective homes. I believe most illness is substantially contextual; my patients are not always pleased to hear this, often preferring continued pathological self-abuse to health-directed behavioral and situational change. Frustrating." Address: Waldron Island, WA 98297.

Judyth Hill and **John Townley** live in Sapello, New Mexico. Hill is a writer, performer, and teacher of poetry. She is the director of Tumblewords and literary projects for the New Mexico Arts Division. Her books include *A Presence of Angels* and *Men Need Space*, both published by Sherman Asher. Her most recent work is the *Chocolate Maven* (10 Speed Press), a cookbook with poems and essays.

John Townley is a furniture designer and builder as well as an accomplished sculptor. He is currently working on a series of 3-dimensional *shojis*. He also designs and builds post-and-beam houses. Address: Rockmirth, Sapello, NM 87745.

Beverly Bruehl, *Environmental & Architectural Phenomenology*, Vol. 9 (1998). Not that there is, in fact, a strong physiological basis to spirituality. Highly symbolic architecture, such as the Ka'bah serves as a vital and centering sacred link in the process of maintaining a relationship grounded in neurophysiology between human beings and the cosmos as in Eliade's homology of Body:House:Cosmos." Address: 4705 Eilers Avenue, Austin, TX 78751.

BOOK REVIEW

Steele, James, 1997. *Architecture for People: The Complete Works of Hassan Fathy*. New York: Whitney Library of Design.

This book reviews the ideas and designs of Egyptian architect Hassan Fathy (1900-1989), best known for his striking *Architecture for the Poor* (University of Chicago, 1973), which described his efforts to create the village of New Gourni for 7,000 displaced Egyptian peasants known as the Gourni. Fathy sought to empathize with their lifeworld and to find architectural means whereby the new village would sustain their traditional way of life yet at the same time make life better by drawing on sustainable technology.

Steele, an architect himself, presents Fathy's built projects and discusses the design philosophy underlying his work. Steele's book is a tribute to Fathy as a compassionate designer and as a master craftsman who held strongly to traditional values and beliefs at a time when the historical amnesia and standardization of Modernist architecture dominated.

In his first chapter, Steele identifies six major principles that form the crux of Fathy's work (p.16):

- The belief in the primacy of human values in architecture;
- The importance of a universal rather than a limited approach;
- The use of appropriate technology;
- The need for socially oriented, cooperative construction techniques;
- The essential role of tradition;
- The re-establishment of cultural pride through the art of building.

Drawing on these principles throughout, Steele organizes his discussion chronologically into four chapters: *Fathy's Early Career: 1928-45*, *New Gourni: 1945-47*, *Further Testing of New Ideas: 1948-67* and *Late Career: 1967-89*. The book includes 213

drawings, plans, and photographs of Fathy's built projects, 100 of which are in color. These images are of great value in bringing out the architectural qualities of Fathy's works. In addition, Steele provides, as appendices, a chronology of Fathy's major works and a bibliography of writings, films, and audiotapes by or about Fathy.

Steele's chapter on Fathy's early career demonstrates the crucial importance of Fathy's study of traditional Egyptian architecture—for example, the Fatimid Tombs, the Deir al-Samaan monastery, the Christian Cemetery of Bagawat, and the vaults behind the Temple of Ramses II. These constructions stimulated Fathy's interest in traditional building materials like mud brick and traditional construction techniques like brick vaulting. This historical aspect and the obvious analogic connection between the earth and the nation it represented were strong factors behind his search for a new Egyptian architecture, both equal to his desire to be free of costly foreign materials like concrete, steel and glass. From Steele's examples, it becomes clear that Fathy's choice of building materials and techniques was not based on impressionistic whims and fancies (as some critics have charged) but, rather, arose from firsthand knowledge of an architectural tradition that had sustained itself for thousands of years.

Steele devotes a full chapter to Fathy's New Gourni project, which undoubtedly, could be called the most important professional effort of his career. Though the project faced much opposition and finally stalled, it was instrumental in making explicit the values and benefits of a cooperative way of

construction and rehabilitation. In 1969, Steele and Steele, in the adoption of traditional materials and techniques of construction. Steele also gives a picture of the village in its current state and discusses the condition of the mosque (regularly used for worship and, as a result, well cared for) and the buildings in the public square (still largely unused, though the theatre has been recently restored).

The reader also learns that New Gourna was located on the main tourist road from the west bank of the Nile to the Valley of Kings. At one point, Fathy included a tourist hotel in the plan for New Gourna, imagining that the busy tourist traffic would be drawn into the main square of New Gourna to buy the crafts that the Gournis would learn to make. According to Steele, Fathy felt a certain ambivalence about the hotel (p.79) and, in fact, in *Architecture for the Poor*, he mentioned neither the building nor potential economic value of tourism.

In his third chapter, Steele explains that, after New Gourna, Fathy faced powerful adversaries, particularly the owner of one of the largest construction conglomerates in Egypt. This man believed that, "if left unchecked, Fathy's reliance on natural materials rather than steel and concrete would lead to lower building costs and lower profits for construction companies" (p. 91). This man lobbied government officials to block Fathy from government commissions and to prevent him from teaching in Egyptian universities.

As a result, much of Fathy's work from 1948—1967 was private commissions that he acquired through social connections and private recommendations. We also learn that, in 1956 after the military coup that put Gamal Abd al-Nasser in power, Fathy fled Egypt and moved to Athens, where he took a position with Constantinos A. Doxiades at his Athens Centre of Ekistics. During his five years with Doxiades, Fathy participated in many projects, including a weavers' village near Cairo (1957) and an Iraqi housing project (1958). Fathy was also heavily involved in Doxiades' City of the Future Project, which sought to go beyond architecture and to invigorate the physical form of cities using methods derived from the biological, ecological and anthropological sciences.

In the fourth chapter dealing with Fathy's late career (1967-89), Steele discusses how Fathy was commissioned by the United Nations Organization for Rural Development to design a prototypical house

(1970) that could be used in the village of Darya, Saudi Arabia. As in New Gourna, his design (see plan and elevation, right) centered on the preservation of the Darya's distinct architectural style and drew on a reverence for regional traditions and customs. At this time, Fathy was also commissioned to design the village of New Baris (1967) for the Kharga Oasis in the Egyptian desert. Never completed because of the Israeli-Egyptian war, the design was to be an agricultural community of some 250 families, half of which were to be farmers and the remainder service personnel.

Steele also describes Fathy's last community project—the Dar al-Islam village, an American Muslim community in Abiquiu, New Mexico, fifty miles north of Santa Fe. During construction, Fathy came to New Mexico along with two Nubian masons, who demonstrated Egyptian mud-brick construction to the local people. Although the community was intended to be a religious, educational and residential center for 100 families, only the 220-square-meter mosque was constructed. The themes of climate, cultural differences and finances determined the course of the project—for example, American social habits did not encourage cooperative building, and strict state building codes required elaborate foundations and mud brick sufficed in concrete. Difficulties like these, according to Steele, caused costs to escalate, forcing the Saudi businessmen backing the project financially to reconsider their support and withdraw (p.142).

In the conclusion of his book, Steele discusses how Fathy's philosophy of architecture might well be categorized as an effort to defy what writer Edward W. Said calls *Orientalism*—"a system of representation framed by a whole set of forces that brought the Orient into Western training, western consciousness and later, western empire" (p. 180). According to Steele, Fathy was a victim of cultural "marginality"—in other words, a personal struggle to integrate his experience with both Arab and Western cultures. He was proud of his Arab heritage and wanted to preserve and defend it against further foreign intrusion, yet he also admired the alien Western culture he blamed for this corruption.

Steele ends his book by highlighting two successors of Fathy who ground their work in Fathy's legacy—Saudi Arabia's Abdel Wahed el-Wakil and Jordan's Rasem Badran. Steele claims that, like Fathy's, the work of these two architects emphasizes

the importance of Environmental & Architectural Phenomenology, Vol. 9 (1998). No answer has yet been expressed through its architecture. Egypt, a nation so proud of its ancient architectural heritage, has just a handful of people whose works are directed toward continuing their country's long lasting and vital tradition. In this regard, Steele emphasizes that it is solely because of Fathy and his few successors that this important issue of regional identity has gained renewed attention. Fathy's efforts were unique in the sense that, when considered sincerely, they get people thinking about the gravity of the situation.

The question of how these Third-World countries and belief systems will eventually address the issue of

answered; in fact, what the answer should be is a hotly debated theoretical issue today. But the fact that this question is being asked at all is directly attributable to Hassan Fathy. This, according to Steele, is his most important and enduring legacy. Whether or not this legacy will continue, only time will decide. Whatever the answer, this book is a tribute to Fathy's architectural works and ideas.

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BOOK REVIEW

How Buildings Learn, by Stewart Brand. 1994. New York: Viking Penguin.

All buildings are predictions. All predictions are wrong. There's no escape from this grim syllogism, but it can be softened.

From these words, Stewart Brand, of *Whole Earth Catalog* fame, has crafted a book that calls forth memories of several other writers (e.g., J. B. Jackson's *Discovering the Vernacular Landscape* and Tom Wolfe's *From Bauhaus to Our House*), while still being an important new addition to architectural theory. Writing in a hip, management-theory style filled with acronyms and alliteration, Brand banters his way into real insights about the nature of change in buildings that so often seem permanent.

Brand presents his basic argument in an early chapter, "Shearing Layers," which argues that any building is actually a hierarchy of pieces, each of which inherently changes at different rates. In his business-consulting manner, he calls these the "Six S's" (borrowed in part from British architect and historian F. Duffy's "Four S's" of capital investment in buildings).

The *Site* is eternal; the *Structure* is good for 30 to 300 years ("but few buildings make it past 60, for other reasons"); the *Skin* now changes every 15 to 20 years due to both weathering and fashion; the *Services* (wiring, plumbing, kitchen appliances, heating and cooling) change every seven to 15 years, perhaps faster in more technological settings; *Space Planning*, the interior partitioning and pedestrian flow, changes every two or three years in offices and lasts perhaps 30 years in the most stable homes; and the innermost layers of *Stuff* (furnishings) change continually.

Brand is still an ecologist at heart, and he draws on what is called an hierarchical concept of ecosystems to surmise that the slow-to-change elements of the building drive the quick-to-change—the site is a determinant of structure, the structure drives the skin, and so on down to the level of furniture:

A design imperative emerges: An adaptive building has to allow slippage between the differently-paced systems of Site, Structure, Skin, Services, Space Plan, and Stuff. Otherwise the slow systems block the flow of the quick ones, and the quick ones tear up the slow ones with their constant change. Embedding the systems together may look efficient at first, but over time it is the opposite, and destructive as well. Thus, pouring concrete on the ground for an instant foundation ("slab-on-grade") is maladaptive—pipes are foolishly buried, and there's no basement space for storage, expansion, maintenance, and Services access. Timber-frame buildings, on the other hand, conveniently separate Structure, Skin, and Services, while balloon-frame (standard stud construction) over-connects them (p. 20).

Over-connection is only one flaw Brand notes in the difficulty of modifying modern (and particularly Modern) buildings. In a central series of chapters, Brand takes great glee in blasting 20th-century architects from Wright to Pei for their pictorial over-emphasis on the central layers of the model—Structure, Skin and Services, and primarily the central of these three—and a willingness to divorce these from the layers before and after.

These buildings have been designed as sculptural (and eminently photographable) objects, unable to move or adapt, perfect in their moment of prehabitation. In criticizing this practice, Brand uses the very tool that the "magazine architects" have used for justification: the still photograph. But Brand subverts the formal purity of the designs by photographing these buildings with people using them, by stacking up photos taken over time, and by comparing these photos with similar images of other buildings less hindered by the immaculate moment of their creation.

In short, Brand replaces the narrative of created form with a more humane narrative of habitation. This is the central and existential theme of the book—that we have narrative rather than static connections with places, and that habitation is always active and purposeful. "Age plus adaptivity," says Brand (p. 23), "is what makes a building come to be loved. The building learns from its occupants, and they learn from it."

The final chapters offers Brand's way out of this mess, which is to offer a more fluid version of what architects have conventionally called programming. Brand calls his approach "scenario planning":

The product of skilled scenario work is not a plan but a strategy. Where a plan is based on prediction, a strategy is designed to encompass unforeseeably changing conditions. A good strategy ensures that, no matter what happens, you always have maneuvering room (p. 178).

The way to soften the inevitable need for building revision, Brand argues, is to fully understand that revisions *are* inevitable in buildings from highest Monticello to the lowest gas station, that our relationships with places are as inherently fluid as our relationships with people.

Brand's book playfully humanizes the shifting landscape through photos and captions that offer the reader a temporal, narrative connection with these altered places. In this way, Brand offers the environmental design professions a vital glimpse of what the past hundred years of magazine architecture has almost taken away—an understanding of habitation.

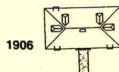
Overall, *How Buildings Learn* is an "almost-great" book. Certainly, it does what Brand set out to do: to humanize and temporalize the world of buildings and help remove them from the limbo of the perfect object. But what he misses, somehow, is a sense of affection for the places he shows us. He writes, glibly and with detachment, about a phenomenon that obviously has

human—and not simply functional—origins. He helps us see, but not feel, these places. Lacking other photographs give us more than Brand himself intends they should, and they save him.

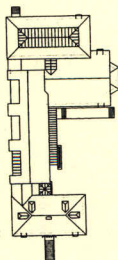
Herb Childress
862 13th Street
Arcata, CA 95521

The three drawings below are selected from Brand's five-part sequence of drawings (1906, 1908, 1912, 1935, and 1979) that illustrates the development of "the Ark," a building that housed the Architecture Department at the University of California, Berkeley for 58 years. Over time, the building grew around a south-facing courtyard, incorporating additions that included studios, an exhibit hall, lecture hall, and library. The Ark has been called "one of the most revered buildings on the campus." When the School of Journalism took over the building in 1981, they reported that "As soon as we moved in, we felt cohesion."

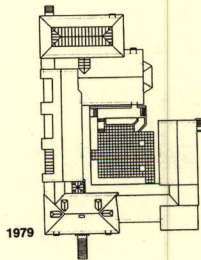
Meanwhile, the Architecture Department left the Ark and moved into a Modernist ten-story concrete structure that has very much failed in maintaining a departmental sense of community. Brand reports one professor as explaining that the new structure "is a real brute of a building. I prefer a one-story responsive wood building to a ten-story extremely inflexible concrete one. When you go from a horizontal plan to a vertical one, immediately you develop a kind of hierarchy, and there's less communication. Sometimes I teach a whole semester now and people say, 'I thought you were on leave'" (p. 69). Drawings used with the permission of Stewart Brand.



1906



1912



1979

THINKING AGAIN ABOUT GOPHERS

Paul Krapfel

Krapfel is a naturalist, teacher, and author of Shifting (see EAP, 3, 2), which tells the story of how, through first-hand observation and experience, he became aware of the ethical implications of the laws of thermodynamics. The two essays we present here were first published in his newsletter, Cairns of Hope, which seeks to present a "hands-on phenomenological ecology" (h.o.p.e.). Krapfel's aim in his nature studies is to see the natural world and ecological principles in new ways by shifting taken-for-granted assumptions and perspectives. Readers can order Krapfel's book or his newsletter by contacting him at: 18080 Brincat Manor, Cottonwood, CA 96022.

In *Shifting*, I write about the invisible power that rain contains and how, thermodynamically, its power can nourish a landscape's evolution in two potential directions. On one hand, the rain can sink in and nourish plant growth that absorbs solar energy into the ecosystem. On the other hand, the rain can run off and erode the soil so much that fewer plants grow and less solar energy is absorbed. The following essay is a musing on a small piece of this larger picture.

Winter rains lead me out to do my water-diverging work, which awakens thoughts that have lain dormant through the summer drought. I come to think once again about gophers.

In summer, I can gloss over gophers as wonderful soil agents who mix the subsoil and topsoil and whose burrows help rain penetrate more deeply. When I am out in the winter rain, however, their activities become more complex.

For one thing, I constantly encounter lots of runoff flowing through gopher burrows. For example, I might be walking along when suddenly, spluugh, my foot sinks deep into the ground and suddenly water is welling up and flowing out of the hole. In this case, I make a series of divergences and spread the water out over the slope.

At other times, I am leading runoff away from a gully, when suddenly my divergence hits a gopher tunnel. The diverging water drops out of sight, usually resurfacing back in the gully through another gopher hole. Unfortunately, this resurfacing water usually emerges muddy, and a pile of eroding sediment forms at the exit. In this case, gopher tunnels act like underground culverts shooting water straight down the slopes and eroding into gullies. Such erosion is "invisible" until the tunnel top collapses, revealing the now-established gully.

So, when I am out in the rain, I often find myself engaged (in a gently cursing way) with the particulars of specific gopher burrows. In *Shifting*, I wrote about how enemies become allies as balances shift toward a positive direction. Unfortunately, it can also happen in the other direction in that allies become enemies. I find myself wondering if, when a terrain becomes dissected with gullies, the ecological effect of gophers shifts from helping water penetrate deep into the soil to helping gullies expand. Gopher effects are definitely complex and have different impacts in different areas.

There is the effect of gophers on level land, for example. We have a drainage problem around our home and, over the years, I have dug two five-inch-deep drainage ditches to help lead the surface water off our yard faster.

Digging ditches to speed up the flow of water off the land goes against my sense of environmental responsibility. But guess what happens to my ditches? Each year gophers fill much of them in with their mounds. At first, I thought this was just random luck. If there are gopher mounds randomly distributed, then a random few will happen to fall on portions of my ditches.

In fact, however, there are places where a series of mounds run the length of my ditch. I think what's happening is that my ditches, projecting down into the ground a few inches, are experienced by gophers in the way drivers experience speed bumps. A gopher burrowing along several inches below the surface suddenly hits a "thin" place and the ceiling caves in. So the gopher reinforces the tunnel in this thin-roofed place by dumping excavated dirt on this area. If this is so, gophers would, over time, tend to level the land by

building up any low spots until water flows off very slowly.

There is also the trickier question of gophers' effects on sloping terrain. I'm not sure but I'm beginning to think that one consequence of gophers is a plastic flowing of the soil that gently eliminates gullies. I used to think of soil erosion in terms of whether the land was moving or not moving—that is, if the soil was moving, then it was eroding. But trying to make sense of what is slowly changing in gopher country has started me thinking that erosion (or its reverse) is not so simple.

Ground that is becoming saturated (thanks to divergences or gopher tunnels) can "flow." There is a plastic deformation like silly putty that gradually bulges downslope and displaces small rills. This deformation is accelerated by the gophers churning up the land. As they burrow through it, they create zones for further "flowing," both by helping that area become saturated and by creating several inches of air space into which the soil upslope can slump.

The soil excavated from the tunnels moves onto the surface, creating a tunnel into which the upslope soil gradually slumps. In other words, there is a small-scale cycling of soil throughout the slope. Little soil might actually flow away from the slope and yet all of the soil "flows" enough to allow the shape of the land to move into more gentle contours. Ultimately, the steep sides of the channel slowly flow towards one another and squeeze away the incised channel.

Trying to judge each gopher tunnel for its effect on soil erosion is difficult. The same is true for trying to decide whether a particular stream is in an upward or downward spiral. One might be able to document deposition building up a rich floodplain over 50 years, and then along comes a 100-year flood that scours the channel deeper than before. Zones of erosion and deposition keep shifting within the channel. I can get so caught up in the daily specifics of particular sites that it all begins to feel relativistic. Maybe it doesn't make much difference to know which way things twitch back and forth. Both directions occur naturally so why be concerned?

It is then I need to go to one of two places. A walk to the head of the watershed reveals whether erosion is creeping headward or healing is moving downstream.

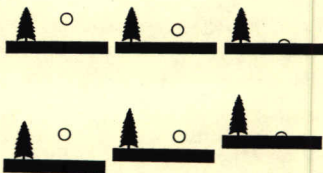
It is much easier to get a feel for the watershed's direction at the head than it is farther down along the main stream corridor. The other place to go is the wilderness to be surrounded by drainages full of upward spirals. Their beauty is testament to why it makes a difference in which direction a drainage is developing. And food for thought lies in why the vast majority of undisturbed drainages develop in the upward direction.

Finally I See

Sixty miles we have travelled over aspen passes
burning into winter.
Light flickers a jittery return
to the bones of the planet.
From within the white bark glows.
Finally I see,
not the sun setting,
but the earth turning.

—Judyth Hill

This poem was recently sent by writer and new *EAP* subscriber Judyth Hill (see p. 3). The poem came about as Hill was reading the spring 1992 issue of *EAP*, which featured the drawing below from Paul Krapfel's *Shifting*.



One of Krapfel's aims in his book is to see the natural world in new ways by *shifting* perspectives—in the case of the drawing, our perception of the earth-sun relationship. He writes:

One evening I saw the earth turning. Before that night, I had always seen the Sun setting toward a stationary horizon. But when I saw the Sun, instead, as stationary then I saw my horizon rising toward the Sun. In the first view, the Sun moves. In the second view, my world moves. My eyes see the same thing... [b]ut what is moving? My brain must make an assumption. Shifting that assumption changes the world I see (Shifting, p. 12).

Paul Krapfel

The current trend in ecology to downplay the "balance of nature" has created a certain dissonance within me. I like to think I am part of the vanguard of ecology to which the main body of science (with a growing interest in "ecological service") is beginning to accept. But last week I realized that the dissonance lies in two distinct images of "balance" that I had not before teased apart.

My favorite image for the classical sense of "balance of nature" is holding in place a yard stick on the tip of my finger. The end of the stick never stands still. There is always a slight circulating dance. And the tip of my finger never stands still, either. Always it, too, does a compensating dance to bring the stick back to plumb.

The relationship between stick and fingertip is a classic example of a stabilizing feedback loop. There is always movement, yes, but there is also a dynamic stability, a compensation to every perturbation, a preservation of a certain arrangement. In short, there is a point of balance that the system as a whole tries to maintain.

If I understand the current trend in ecology correctly, ecologists are saying that, on the one hand, there are these stabilizing patterns in nature. On the other hand, these ecologists are also saying that there is nothing inherently "sacred" in any particular arrangement currently maintained through stabilizing feedback loops. There is said to be nothing fundamental that the system as a whole is trying to maintain. If certain occasional forces become strong enough, they can knock the entire system into a completely new configuration with new balancing points.

This situation certainly is the case when one contemplates the geological history of long-term changes such as vast Ice Age lakes in the West drying to flat playas. And though I delight in every discovered example of a stabilizing feedback, the heart of my awe lies in another kind of "relative balance"—the kind underlying the phrase "turning the prow of our entropy ship back upstream."

"balance" is so fundamental to my way of thinking that I wonder if I am not actually a member of a discredited old school mumbling against heliocentrism, evolution, and plate tectonics.

Perhaps the best image I have to contrast this kind of balance with the kind expressed by the balanced meter stick is a turkey vulture spiraling within a thermal. The bird is always gliding "downhill" through the air. If, however, the air rises faster than the vulture descends, then the bird rises relative to the ground. Unlike the meter stick, there is no point of balance trying to be maintained but, instead, a relative balance between descent and ascent. If it glides downward faster than the air rises, the vulture loses altitude. If the air rises faster than the vulture descends, it rises with the result that, from that higher altitude, the bird has more possibilities, more options, more freedom as to where it might move.

Life evolves within a universe shaped by the second law of thermodynamics (the downward gliding of the vulture) and upon a planet orbiting within a solar flow of energy that makes possible the thermal and ten billion other similar "upward" expressions.

The tension between these two realities can lead the surface of the earth to evolve along a variety of paths. What I find so sacred is the way life collectively has evolved structures that shift this relative balance so that more of the sun's energy is diverted into life, so that flows of nutrients are slowed and recycled, so that forces that previously blasted life are moderated.

In other words, the two balances are created by two different kinds of feedback. "Balance of nature" uses stabilizing feedback loops to keep things oscillating within a narrow range. The "relative balance," however, does not remain within this narrow range. Instead, snowballing feedback loops keep things moving into new ranges of possibilities. In other words, changes in the "balance of nature" lead to a change in position. Changes in the "relative balance" lead to a change in direction.

If I look at Sand Canyon, the existing landscape described in *Shifting*, I can see several stabilizing feedback loops that help stabilize eroding streams. As the erosion cuts deeper, the stream bed draws closer to the water table, allowing the plants that can reverse the spiral to grow more luxuriantly. The nascent thickets of willows and cottonwoods that spring up each spring trap stream-transported soil and help reconstruct the stream bed until it becomes again almost level with the terraces.

But this pattern doesn't always happen in Sand Canyon because there are too many cattle and sheep in the stream bed for too long each growing season with the result that most seedlings get eaten. Again, there could have been a balancing feedback loop to the livestock's causing the erosion: So many grazers should have attracted enough predators so that the grazers never reached such numbers. But the people have hunted out all the wolves and cougars.

In terms of "balance of nature," traditional-thinking ecologists like myself would say that Sand Canyon is out of balance. On the other hand, the newer ecological voices would say, "No, the forces acting on the system have changed, and so the canyon system as a whole has evolved to a new position of stability."

And that is the statement I am making. But looking at the situation in this way misses what the people are doing to the canyon in terms of snowballing feedback loops. Each year the canyon loses more of its life-supporting potential.

We are the inheritors of a multi-billion-year upward spiral. The evolution of our intelligence is like the expanded view a vulture has near the top of the thermal. One could, perhaps, argue that there is nothing sacred about whether the ecosystem as a whole rises towards lesser entropy or falls towards greater entropy.

But the discussion would be irrelevant to our present situation in which this shift in relative balance is due to one species that has yet to comprehend the cause-and-effect relationships between its efforts to decrease entropy for the human subsystem and the consequent increase in entropy this causes in the greater biosphere.

In short, our human species has yet to understand the long-term implications that running down the greater system will sooner or later have on the human sub-system.

A RADICALLY PROTECTIVE POLITICS OF PLACE

Donald Snow

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In 1930, 12 Southern writers gathered at Vanderbilt University in Nashville, Tennessee, to read a series of essays they had prepared in defense of the Old South. They named a common enemy, which they identified as "industrialism," imported from the North and shepherded along by Southern boosters who, in the view of these 12 writers, ought to have known better.

The industrialism they decried was essentially the replacement of an agricultural and barter economy with a manufacturing and monetary economy. And it implied a correspondingly massive shift in social arrangements. In the view of those self-named "Southern

Agrarians," that swift and irrevocable transition was going to kill the most important cultural traditions of the South—traditions that rested on subsistence farming, the virtue of small freeholdings in land, and the true "arts of leisure" that came of the rural life.

The work resulting from the conference, an anthology of 12 essays entitled *I'll Take My Stand*, has become a landmark in American literary regionalism. A provocative and passionate collection of writings in defense of the human spirit against the onslaught of the machine and the culture of mass consumerism, this collection stands as one of the most forcefully articu-

The 12 contributors—including novelists and poets Robert Penn Warren, John Crowe Ransom, Andrew Lytle, and Allen Tate, and historian Donald Davidson—wrote a multi-sided manifesto touching on themes they thought critical to the defense of a region and its people: religion, cultural and artistic values, economy, history, race relations, morals.

This anthology is deeply flawed, to be sure (Warren later recanted his blatantly racist chapter, "The Briar Patch"); it has been both praised and vilified by scholars of many stripes; it remains controversial. But the spirit that brought it forth is as valid today as it was more than 60 years ago.

A DEFENSE OF PLACE TOO LATE

The book's most striking relevance to me as a Westerner lies in what it has to say to the contemporary American West, for this region today is in the grip of a transformation no less formidable than the one the South faced in 1930. Now, perhaps more than ever, we Westerners search for articulate defenders of place for the benefit of places still worth defending. And perhaps we are searching for the kinds of defenders that the Southern Agrarians did not prove to be: those who could somehow help move society from passionate discourse to effective action.

The Agrarians themselves eventually acknowledged their failure to produce any measurable resistance to the industrial juggernaut; theirs was, indeed, as Davidson put it, "a fierce devotion to a lost cause." By the time Andrew Lytle exhorted his countrymen to "Throw out the radio and take down the fiddle from the wall," he knew it was already too late.

I wonder if there are as many as a dozen writers of the West who might be prepared to take a stand, and if those writers might be willing to do what the Agrarians failed to do: to see the project through the harder stages of recommending a politics appropriate to the West. For it is clear that our politics today fail us, and ultimately will fail the ends of both humanism and the land.

The West, like the South before, has adequately identified the culprits, and in both regions in both eras, they seem to be the same: fundamentally, habits of mind that lead unwittingly to destructive behavior. Yet the harder task remains ahead: changing our minds;

providing our subjects with a new narrative. We are in the throes of a revolution we neither fomented nor asked for, and the Western lands, rivers, wildlife, backcountry, and human communities will probably suffer more than they gain from the rapid changes ahead.

A CUISAINART CULTURE

The problems, by now, are relatively easy to elucidate, and many writers have done so in myriad ways. In my most simplistic rendition of the dilemma, I settle on this: America is a cuisainart culture that homogenizes as it goes, reducing life in every region ultimately to the same flavor. We are a nervous, acquisitive, hyperactive society in which capital and citizens act alike. Both are infinitely mobile, willing and able to pick up and transport themselves in a wink. One by one, the regions that have always given our culture and polity their distinctive flavors are blended down into a pabulum of commercial culture and a manner of daily living in which place is mostly irrelevant, and, increasingly, so is community.

In the midst of our frenetic homogenization, wilderness and meaningful contact with nature are lost, except in the pathetic tatters and shreds that can be preserved at some great and grudging cost as parks, monuments, natural areas, wilderness areas. Even in the 'wild' West, our daily contact with living nature is more likely to come through television or the internet than through the flesh of our hands.

Several economists I know often join voices with corporate apologists in extolling the constant virtue of the new. Our ceaseless motion, expressed partly in migration to 'better places', heavier purchasing habits, and the accelerating pace of technological change, they see not as something to be decried or feared or denigrated, but rather celebrated.

People like me are merely 'whiners' or even 'reactionaries' who somehow cannot learn that change is inevitable, bountiful and good. Rather than complaining about the revolution-in-progress, we Westerners should all count our blessings or at least those blessings that count most: cheap gasoline, fast cars, faster snowmobiles, even faster computers, better football and basketball teams, boundless opportunities for selecting the life we desire (as if we were all so able financially), and of course the ever-happy shift from jobs manipulating hardware to jobs manipulating symbols.

ONLY PROGRESS IS IMPORTANT

In the midst of all this restless change, we don't know where we are headed, but we don't need to. For that is the essential beauty of the American experiment: it is thoroughly open-ended. The 'ends of man' are not relevant; only progress is relevant, and our rising standard of living is all the evidence we need of ceaseless progress.

Even some environmentalists, ever wary of the Luddite label, have gotten in on the act. I have recently read spirited defenses of the suburbanization of agricultural lands. While I view it as a holocaust perpetrated against the soil, some of my colleagues seem to believe that suburbanizing irrigated croplands represents a triumph of the innocent over the guilty.

The merchants and teachers and health care workers and manipulators of symbols who rush to fill the new formaldehyde and particle board boxes of the Colorado suburbs aren't there to rape the riparian, as the ranchers surely did. They don't come to gobble up the grain of subsidies set out by the federal landlord, nor steal all the water from the fish; they come, apparently, to take nothing but pictures, leave nothing but footprints.

But here is the question to be answered by the optimists of materialism: If our supposed rising standard of living should indeed be the measure of our happiness, why does unhappiness seem to be exploding much faster than the rise in the gross national product? From where emanates the spiritual yearning we hear our countrymen expressing from sea to shining sea—and the corresponding complaint over the feeling of emptiness?

Data on migration into the Rocky Mountain West tell us that a large proportion of new migrants arrive, in essence, to reacquaint themselves with a life that recalls better times. They seek community, and think they see it, ready-made, in a town like Bozeman, Montana, or Lander, Wyoming. There may or may not be an economic explanation for their desire to migrate into simpler times, but there is surely a spiritual explanation: people want to feel whole, and they sense that they will if they can somehow slow down, dig in, and live closer to nature.

A POLITICS OF CHANGE

As I sit in my Missoula office and watch the gigabytes of revolutionary change flow past, I begin to

understand the angst of the West's writers stand. Much of the excellent nature writing now emanating from the West is more elegiac than ever, which tells me that writers who feel deeply about wilderness and wild species and the life lived among them are more touched than ever by the massive changes sweeping through the region. Just say these words, and the sense of elegy mounts: *black-footed ferret, westslope cutthroat, bull trout, chum salmon, razorback sucker, bonytail chub, grizzly bear*. Nearly every writer I know talks off the record about population growth and the accelerating pace of destructive change where they live—indeed, a few seem obsessed by it all. But where can we go to go on the record, and what would we say if we did? Would some '12 Westerners' ever manage to unite voices in a chorus resembling that of the Agrarians, and be able to move from elegy and lamentation to cogent and meaningful suggestions for a politics appropriate to place?

It is clear that a new politics is needed to face up to and accommodate the revolutionary growth and change in the West, and that new politics cannot be merely local. As Daniel Kemmis has argued in *The Good City and the Good Life*, the changes overtopping the West represent not just isolated examples of growth, but probably a major, national demographic shift that occurs within the region and comes from outside simultaneously.

Given the West's peculiar land- and water-use institutions—federal ownership and control of half the region's land base being the most emblematic—it is clear that a politics crafted to meet the times must be a regional politics with local, regional and, national effects. In a short time, the right wing now dominating every state government in the region will have spent its silly charges, and the field will be open again. We must be ready and more creative than to offer mere retrenchment to a new era of suicidal liberalism.

OBSTACLES

Perhaps two factors, more than any others, militate against the construction of a useful work in which Western writers take their stand. First, we live in a time when many writers and artists seem to equate politics with polemics, as if one cannot create 'political art' without it devolving into, or being regarded as, an ideological mural. The stench emanating from the word 'politics' wafts in all directions, and writers are

the ones. *Environmental & Architectural Phenomenology*, Vol. 9 (1998), Nov. in literature and elsewhere. Our civic life, our inheritance of biodiversity, our very character as diverse Americans depend utterly upon the renaissance of place. In the case of the West—or what's left of it—I am not suggesting that writers engage in a shallow polemics of place, but rather that we bear nothing less than the time-honored responsibilities of all artists. Those include responsibilities to society and soil as well as self.

Second, perhaps any suggestion toward a regional manifesto only hastens the fleeing from the task, for Western writers perhaps more than writers of any other section feel the nasty bite of the word 'regional.' Many hear 'damnation to obscurity' when they hear that word, and it's no wonder. The establishment press long ignored the West and its writers, then when it began paying attention, it wanted only those Western themes, ideas, and ideals that would appeal to urban, coastal sensibilities.

The result, at its worst, has been the creation of a Western literature of nature narcissism and poseurs: the West as funhog epicenter for the world; the West as final bastion of the landed nobility; the West as the last, best place where anyone can 'go native' or 'come into the country,' and anyone with much literary skill can land a book contract to talk about it.

A GENUINE REGIONALISM

But regionalism does not need to be either a charade or a damnation to H.L. Mencken's 'Sahara of the Bozart,' his savage characterization of the South. Here, again, the Agrarians may help us.

"Regionalism," wrote Donald Davidson in 1938, "is the name for a condition under which the national American literature exists as a literature....[It] describes the conditions and attitudes under which it is possible for literature to be a normal artistic outgrowth of the life of a region."

Davidson pointed out that in the United States, the relationship between the national and the regional carries "an importance peculiar among the literatures of Western peoples." Our national literature, he exclaimed, is virtually the amalgam of the literature of our regions, and there is nothing "mere" about it. He suggested that regionalism alone carries the tendency "to correct overcentralization by conscious decentralization."

If Davidson is right, then perhaps we may say that in our country, strong regional literatures may be the only fortresses left against the holocaust of homogenization. We have never needed the distinctiveness of

How might we live up to those responsibilities in a way that connects with the West's burgeoning polity and begins to reconstruct our politics? We must face the truth that political maturity has been long suppressed in the West; that in our complicity with the federal landlord and the corporate colonists who have offered us the stinking bait of jobs (and just as often grabbed it away in fits of bribery over taxes or regulation), we have long subverted the painful growth in political ability that would come of taking full responsibility for our own communities.

Even in the West's most 'enlightened' places—its centers of university intelligentsia, for example—we still cower before commerce. We perform land-use planning either not at all or through the happy instrument of the exemption. We allow right-wing screamers their sacred property rights, but insist on few or no property responsibilities. Garrett Hardin's 'mutual coercion mutually agreed upon' fades farther and farther from our grasp, as we embrace Leslie Ryan's 'calculus of infinite permission'.

Yet ironically, it may be the very growth of the West that can save the region's distinctiveness, for the growth is not colonial, not dependent upon the federal landlord for subsidies and political shelter. The growth contains all the chaos and protean energy of the open marketplace, is not centrally planned, guided or determined, and cannot be readily manipulated by ambitious politicians.

A NEW POLITICS

I say 'growth' may save us, but that is not, strictly speaking, what I mean. It will have to be the people bringing the growth who may help calculate a new politics to preserve the values of the traditional West while gradually learning how to preserve the remaining land base. The West may never again be what it was before the Great Cuisinart arrived, but that does not mean that its wild distinctiveness must now be ruined.

The enemy named by the Agrarians was 'industrialism', and the societal ideal to pursue in resistance was 'agrarianism', but as many commentators have pointed out, those terms should not be taken too literally. As Louis Rubin said in his introduction to the most recent edition, the Agrarians were not so naive as to have proposed a "return to moonlight and magnolias," nor did they stand fully against the creation of new livelihood and economic growth.

What they feared was the excess of materialism carried into the South by the new manufacturing; the seduction of poor, rural southerners by the Siren promises of employment; and the gross destruction of nature by industrial and governmental forces. The Tennessee Valley Authority perhaps embodied all of their nightmares at once.

Yet the Southern who would resist industrialism would be a modern person, indeed; he or she would need to be nearly as erudite as the Agrarians themselves, for that person would need to understand history, enough about market economics to repel the filthy sperm of unlimited commerce, and perhaps the intention of the phrase 'religious humanism', meaning, in Allen Tate's terms, the proclivity of human beings toward an unarticulated religion founded upon nature.

The proper agrarian may have nothing to do with farming, but would inevitably have both an active and a philosophical relationship to the land of his or her birth—a relationship based upon the principles of husbandry. That agrarian would need to possess a poet's soul, a modest appetite for materiale, and a determinedly conservative, even a preservative, point of view. He or she would need to know what it was about southern life that needed preserving, and would have to pass that knowledge to the next generation in terms that fostered the acceptance of responsibility.

A RADICALLY PROTECTIVE POLITICS

Framed in those terms, perhaps the mission of a Western manifesto becomes more clear. If writers are, as Colorado's Ed Quillen has said, "the arbiters of what's cool," then maybe the task of inventing a radi-

cally protective politics is to make it cool for people to appreciate the elder values that have always undergirded the good life in the West and the full participation in its community life.

Economist John Baden has begun to frame those values in a manner that artists and writers may appreciate: "The West's traditional, defining values," he writes, "include respect for individual liberty, courage, and autonomy; a living sense of community and interdependence; personal integrity that fosters handshake deals; a respect for competence in dealing with the physical world; and a recognition of the importance of family continuity to the social order."

Do these five themes compose a foundation on which to take a stand? Could we trust a manifesto that offered little more than an illumination of human values attached to place and nature, and a thoughtful extension of those values into the arena of politics?

What if those values were given an authentic Western setting, but spoken of as reverently as we speak of universals, which these surely are, so that in the end, readers everywhere would understand that it is not merely the West being spoken for, but every place—everywhere people encounter the forced abandonment of home and rural dignity, the painful extinction of wild species and natural places, the irrevocable losses that mount as the cuisinart runs on turbo?

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