

## Natural Considerations: The Human Ecology of Place-Making<sup>1</sup>

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Let me make it clear from the outset: my vision for Earth is a planet populated sparsely by humans, where alienation between humans and nature is absent, and where nonhuman processes prevail.

But I am not a misanthrope.

Human capacities for caring, for hope and curiosity, for compassion, and ultimately for culture are contingent on our affiliation with nature. My proposition is quite simple; natural landscapes are compelling for humans, and exert significant influence on intellect, intuition, and action. Industrial peoples, though, seem intent on trivializing or annulling our relationship with nature, inasmuch as it is perceived to be a restriction on human possibilities.

The central question guiding my seminar is "What does it mean to be human *in place*?" In answer, I offer the concept of geophilia, and assert that humans have an organic propensity to find wildlands emotionally compelling. Extrapolating from E.O. Wilson's concept of biophilia, I ponder whether geophilia might exist as a human tendency to emotionally connect with particular types of landscape. This inherent inclination to affiliate with landscape is, perhaps, part of our evolutionary heritage, associated with genetic fitness, and related to the human propensity for symbolic reasoning.

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<sup>1</sup> This is an unreferenced paper. A published but substantially different version can be viewed at <http://bernard.pitzer.edu/%7Epfaulsti/Publications/Geophilia/Geophilia.htm>

While the biophilia hypothesis proposes that humans have a proclivity to focus on life and lifelike processes, geophilia addresses our underlying tendency to find compelling the landscape and its component features, both biotic and abiotic.

Whereas topophilia—a term coined by the geographer Yi-Fu Tuan--relates to our affective and *acquired* ties with our *material surroundings*, geophilia can be described as our *innate* affiliation with *natural environments*. Topophilia is a learned response while geophilia is an inherent, direct response.

Bioregionalism is another framework for understanding human relationships with landscapes. It is the purposeful and conscious movement to inhabit specific places in sustainable ways; to learn the geology, climate, flora and fauna of particular biotic communities and to live with sensitivity to a place. Bioregionalism is a conscious, ethical, and active expression driven by geophilia. Geophilia is more fundamental than bioregionalism; it encompasses tens of thousands of years of evolutionary encounters with landscape. While it is related to bioregionalism, geophilia departs from it in that it just might be inscribed in our DNA.

We need natural landscapes; not only as terrain, territory, and resource, but also as cognitive sustenance. If geophilia exists as part of our species' biological heritage, then it is probable that there is evolutionary advantage to emotional and intellectual affiliation with land. Just as we need love of one another to enhance commitment to our partners and children, we need love of land to enhance commitment to sustainability and conservation.

Research in this area is young, and findings have yet to appear that irrefutably support the proposition that positive response to nature has a partly genetic basis. The most convincing findings are the decisive patterns

across diverse cultures, revealing a preference for natural scenes over urban scenes, as well as the remarkable predilection for natural settings that presumably offered survival-related advantages for humans.

Geophobia, the corollary of geophilia, is the fearful response to landscapes. Such response, one could argue, sharpens perceptions and makes us physically and emotionally more agile. Fear of heights, for example, has some adaptive value. Geophobia has a purpose, but only to a point. Essentially, in our contemporary world, geophobia competes with geophilia, and finds its prolific expression in modern resource extraction and development projects. Suburban landscapes, golf courses, and even Las Vegas are examples of geophilia gone awry.

Las Vegas tugs at us because it represents the oasis (albeit utterly denaturalized); or to put it in terms apropos to human evolution, Las Vegas is the metaphorical waterhole in the parched savanna. But even in this dysfunctional and ecologically degrading expression we see some measure of philia among the phobia. The point being that, whatever may motivate us to affiliate with land, its cultural manifestations are complex and often elusive.

## GEOPHILIA AND CONSERVATION

As a universal quality, geophilia provides a potent argument for conservation and signifies the importance of a land ethic. Geophilia suggests that humans are *of* the landscape, and that as a species *Homo sapiens* belongs to the land in ways profound. It reminds us that it is our nature to be resourceful and attentive to the world in which we live.

Our current environmental crisis is symptomatic of our fractured relationship with the natural world; not only with living nature, but with all nature, including the topographical ground of existence. On some level--perhaps deeply subconscious--geophilia may be the motivating force behind the establishment of wildlife refuges, national parks, and other conservation lands.

Wilderness is important for satisfying our physical and emotional needs for uncompromised, revered space. All cultures of which I am aware have separate, dedicated, hallowed spaces. In contemporary industrial cultures, wilderness as sacred space is partly an expression of a land ethic informed by a geophilic response to nature.

According to environmental philosopher J. Baird Callicott, we are moral beings, and a land ethic is a *natural* phenomenon. Argues Callicott; "To the extent that nature has produced at least one ethical species, *Homo sapiens*, nature is not amoral." In a contrasting argument, Eugene Hargrove takes an ethological position, arguing that our interest in landscape comes out of landscape painting, poetry, gardening, and natural history. The basis, he argues, is *cultural*.

But neither of these positions is complete; culture and biology are not mutually exclusive. Geophilia, if it indeed exists as a biological component of our species, is certainly not free from sentiment and reason. We need not shy away from conjoining the cultural and ecological foundations of a land ethic.

Geophilia may provide the basis for the ethics of both radical ecology and mainstream environmentalism. Radical ecology purports to be largely altruistic, concerned with preserving the *intrinsic integrity* of nature. Mainstream environmentalism, on the other hand, is most concerned with

preserving the *utilitarian value* of nature. Combining the strands of these two perspectives, an ethic based on our affinity for landscape can be understood partly as an ethic of altruistic selfishness.

Aldo Leopold maintains that we can be ethical only in relation to something we can see, feel, understand, love, or otherwise have faith in. "It is inconceivable to me," he states, "that an ethical relation to land can exist without love, respect, and admiration for land, and a high regard for its value." By value, Leopold means, I'm pretty sure, not merely economic worth, but also emotional and philosophic sustenance. A land ethic, in the Leopold sense, is infused with emotion and is an intellectual expression of our geophilic constitution.

Leopold understands land to be a stream of energy flowing through a circuit of soils, plants, and animals. A landscape, then, is comprised not only of components, but also of an organizational pattern linking those components. Just as land is more than mere dirt, geophilia is more than a response to landscape; it is a response to the *systems that sustain* landscapes. Whereas we can observe specific landscape features--flora and fauna, geological patterns, streams and lakes--the land is none of these things, yet all of them. Land, in its most ecological sense, is not about topography or terrain. It is about relationships. This raises one of the problems with Darwinian evolution as it has been popularized; it emphasizes rivalry rather than relationships; competition rather than cooperation. Natural selection is not so much about survival of the fittest, as about survival of the fitness. How things fit together.

## INTUITING THE LAND

Various research projects have documented humankind's strong preference for natural settings, and the literature in environmental perception is rich with examples. People give aesthetic preference to landscapes in which they can function effectively. We tend to prefer, for example, landscapes with water features, trees with a broad canopy, and both panoramic views and sheltered refuges. Aesthetic reactions, then, are not trivial, for they are a template for human behavior that is both ancient and far-reaching.

While our regard for wilderness may be predicated on aesthetics, our need for wilderness is biological. If there is an inherent inclination for certain types of landscapes, then the basis would be a common human ecology. People in both Western and Eastern societies consistently dislike spatially restricted environments but respond positively to landscapes with visual depth. This preference can perhaps be related to our common evolutionary heritage in which our hominid ancestors found abundant plant and animal resources on the savanna, as well as lower risk because of visual openness, escape opportunities, and surveillance. Modern humans prefer landscapes with savanna-like properties such as openness, scattered trees, and grassy ground cover, and this *may* be a partly genetic predisposition. I'm suggesting that we realize our human potential less in concocted landscapes than we do in those places that are formed more directly by the terms of our evolutionary heritage.

We do, however, respond positively to landscapes in which there are suggestions of human influence, such as paths, hamlets, or picnic tables. Such scenes bespeak socialization, companionship, and an integration of

human and natural systems. However, where human influence is perceived to be intrusive or dominant, a less favorable response is elicited.

Cultural and biological advantage is conferred on those who experience a sense of identity, reliance, and knowledge produced by the security of living in community and in place. Extrapolating from Claude Levi-Strauss, places are good to think.

Perhaps industrial peoples are suffering from a kind of collective amnesia, wherein we have forgotten, or are repressing, certain attitudes, perceptions, and ways of knowing.

## SYMBOLIZING GEOPHILIA

The extreme relativism of our paradigm *du jour* disfavors any notion of limits on human potentials. Revolts against these abstractions, from Romanticism to early environmentalism, have been attempts to reassert the experience of the earth as a mosaic of places, and of people as place-dependent participants in the planet.

Culture *is* real phenomena, and adds dimensions of variability to human expressions of how, biologically, we fit into ecosystems. But the world is not constructed solely within our imaginations. In acknowledging the mediating role of culture, we need not abandon our belief that scribbly gums, bilbies, and Precambrian sandstones are *real*.

But symbolism, too, is real, and offers rich examples of how human intellect and intuition work in relation to the land. Diverse cultures have diverse perceptions of the lands they inhabit. Understanding the core of at least some of these varying perspectives is crucial to our understanding of the human condition. Geographical places become sacred or symbolic when

they conjoin human social facts with those of nature. Landscape, then, is a biocultural artifact, and in this sense geophilia is a practical venture.

Some social critics have set about to deconstruct nature, to question the essential reality of the natural world. No mind-is-all solipsism has convinced me that humans, through our social world, have a monopoly on the natural world. The argument that cutting down forests, for example, is somehow natural merely masks the fact that it's a political choice. And choices have histories. Calling a particular history 'inevitable' or 'natural' denies the power of choice. Our environmental problems are a result of a series of choices; religious, political, economic, etc. Some choices have been stupid. For example, deforesting the world.

People, of course, differ from each other. We see the world through conceptually different eyes and bring diverse perspectives to our experiences of nature. We certainly vary in what we like and dislike; but given this wondrous diversity, is it not just as wondrous to find some strong and pervasive consistencies in our environmental preferences?

Part of our cultural diversity and, indeed, our very humanity, derives from the unique ways we affiliate with the land. Let me show some slides of different peoples with whom I've worked, and offer them as an interlude and as a way of demonstrating various cultural expressions of affiliation with landscape:



1) Aboriginal peoples express geophilia (or something close to it) through myths and rituals, through totemism, and in elaborate systems of land tenure.

- Among Warlpiri Aborigines, the landscape is conceived of as an extension of the self. This shared identity is sagaciously articulated in the concept of *Jukurrpa*--the Dreaming.

- Mythological Ancestors inhabit the featureless country. They travel about, and as they do so they perform acts of creation that form the land as we know it. The rocks and hills, waterholes & trees are created during this mythological time, as are fire and tribal laws.

- When the Ancestors complete their wanderings, they enter the earth, where their essence remains.



2) Anthropologists have long struggled to temporally place the Aboriginal conception of the Dreaming. They have discussed 'Dreamtime' as a time-out-of-time; an era when past, present, and future fold together. But from my experience, what matters most to Aboriginals is *where* Dreaming events

occur, not when, and what they reveal about Aboriginal socio-political life. In this way, culture is spatially anchored and places are indispensable resources for cultural identity.



3) Banjo Jungarrayi nostalgically recalled to me his adolescence: “We ran around naked,” he said, “like wild men.” Walking across parched red sand amid flies and dogs, Jungarrayi recalled with sadness his forced assimilation into a society where wildness is distinctly other than humanness. Despite fervent attempts by our dominant culture to discredit traditional Aboriginal life, Jungarrayi held no shame for his youth. With pensiveness, he told me how his youth came to an abrupt end when he was chased down by men in a ute, lassoed, caged, and removed from his homeland. In his old age, Jungarrayi wanted nothing more than to return to Kunajarrayi, his ‘country’, to be a wild man in his final days. Jungarrayi’s wildness did not require nakedness; what he desired was to dwell in his totemic country, where he could live according to Dreaming Law.



4) This is a site in Warlpiri country known as Puwarri Puwarri.

- Warrpalypardu, the Giant Cannibal Woman, used to crush and kill people, and bring them back here for roasting in these pits. The scattered boulders are the discarded body parts of the people she ate.

- Warlpiri maintain that the land both creates and is created by people. This notion has penetrating ramifications; person and place share an identity.



5) Blood is a powerful component of ceremonies.

- Men face their father's country as they pierce their arm veins to draw blood for ritual decoration.

- The Warlpiri way of positioning oneself in the world indicates the significance of mythological geography.



6) Body features replicate features of the terrain; many field researchers can tell you how Aboriginals relate their physical features to the landscape features of their totemic countries.

- Landscape & anatomy are reflections of each other.



7) The power of this cultured landscape is felt vicariously through the people; in how men and women ceremoniously recite the names of sites

within their countries, or in the way an elder may weep upon visiting a sacred place.

- Overlooking this Emu Dreaming country, Charlie Jampijinpa said to me "This one my daddy."



8) An individual exists not only in relation to other individuals, but also in concert with a landscape.

- By learning about the country through myths, and through the direct experiences of touching and seeing, people become, Warlpiri say, 'stronger'.

- Warlpiri identity is not only internal and subjective, but also external and objective.



9) While Warlpiri understand physiological principles of reproduction, they also believe that spiritual animation is an essential aspect of conception.

- Every Warlpiri fetus is animated by entry of Ancestral potency into the mother's womb. The place of this occurrence defines people as possessing a special relationship with a particular track of land.

- These bonds of geographical totemism are intense and permanent; people only exist in relation to places.



10) Virtually nothing is meaningful or beautiful outside of the context of the Dreaming.

- Returning from gathering ochre at the quarry known as Karrku, some Warlpiri companions and I were descending the slopes of the mesa when we took a break. The sun was melting into the earth, and the sky was aglow with the saturated hues of red and orange. I was captivated by the sunset, but my Warlpiri friends showed no interest in it.

- Initially perplexed by what seemed to be a dismissal of something beautiful, I soon realized that when we looked out over the land, we saw very different things. As I was a novice in Warlpiri country, the land did not grab my gaze at this moment. The brilliance of the setting sun was more gripping. But for my Warlpiri companions, the transience of the setting sun was inconsequential. What held meaning for them was the Dreaming landscape stretching out in front of them. This land displays distinct elements of Warlpiri identity, and that is what they were concentrating on.



11) Aboriginal art expresses connections with the land, not only in its context and mediums, but in its symbolism.



12) U-shaped motifs represent people or mythological ancestors. While this shape does not look like a human, it iconically signifies a person because it resembles the imprint of a person sitting cross-legged on sand. Hence, people are depicted by the mark left where the human body intersects the earth. This is not inconsequential, for it demonstrates the ecological--that is relational--thinking that connects people with the land. Through symbolism, Aboriginals have asserted that there is no clear separation between who we are and where we are.



13) Many indigenous peoples engage in participation and reciprocity with the land. Their ethics, generally, are based on cosmologies of shared identity between humans and landscape, and facilitate the maintenance of diverse resource bases.



14) Warlpiri Aborigines, for example, employ sophisticated use of fire in keeping their country rich and productive. During the winter, when the land is cool and fire is more readily controlled and utilized, Warlpiri light fire to selected grassland areas. Such burning is one strategy that enables Warlpiri to maintain a greater variety of habitats and corresponding stages of production than occur under unaltered conditions.

Thus, Warlpiri manage a greater diversity and productivity of preferred plants and animals. At the same time, controlled burns reduce the frequency

and intensity of summer bushfires that are characteristic of overprotected areas. Warlpiri consider it their obligation to "clean up the country," as they say, by lighting fires; overgrown habitats are considered to be "dirty" and neglected.



15) Aboriginal peoples have sophisticated systems of ecological knowledge, and store this information in elaborate structures of myth and ritual.

While burning the country is an adaptive strategy of environmental management, Warlpiri articulate that they do it as part of their obligation in the maintenance of the Dreaming. Theirs is a moral ecology, then, predicated on the shared responsibility between people and the land.



16) All societies manage resources over time, partly through the use of cultural symbols--such as worldviews, sacred sites, and graphic designs--which reinforce particular resource management strategies and environmental ethics. These beliefs, while they may seem unscientific, if not irrational, are often based on long and careful observation of nature. Hence, cultural symbols are critical components of the pedagogy of place.



17) While doing research in the tropical rainforest of Malaysia, I went hunting with a Batek Negrito man named Kumbang. After walking for a time through the steamy jungle on narrow Batek trails, we heard a rustle in the canopy that signalled what we were after; gibbon. Kumbang slipped a

poisoned dart into his blowpipe and fired into the canopy, piercing the gibbon's flesh. Branches exploded as the injured animal fled. Kumbang slipped off his Nikes and took off through the understory on an hour-long chase that ultimately afforded nothing.

Despite the Nikes, this was, for me, an experience more wild, more organic, than most backpacking immersions I have had in unpeopled wilderness. This is not an attempt at romancing the Stone Age; indeed, Batek are opportunists and have incorporated aspects of the industrial world into their culture, as is evidenced by the Nikes.



18) But the relationship Batek have with this landscape is intimate. For example, Batek advertently and inadvertently distribute seeds of rainforest fruits throughout their territory. This, in turn, influences the demographics of animal species and, in conjunction with traditional hunting practices, helps maintain faunal population balances. Current government practices of denying Batek full access to the land, therefore, may preclude the continuation of cultural practices that are consequential to rainforest ecology.



19) Nepal's Annapurna Conservation Area is among the most ethnically diverse and heavily populated of the world's inhabited protected areas. The Nepali approach to tourism and resource use in the Annapurna region is unique in placing the management of protected areas to a nongovernmental organization and local villages. Now that conservation authority has largely been restored to the communities, Indigenous forest management practices have been adapted and revived.



20) The Annapurna Conservation Area Project approaches environmental protection and cultural survival as interlinked objectives. Activities are based on cultural traditions and principles of local empowerment and community participation.

Conservation efforts--in Nepal and elsewhere--become fully affective only when coercion gives way to cooperation.



21) In Bali, geographical orientation begins with the sacred mountain, Gunung Agung, which stands in the eastern central part of the island. As with numerous other cultures, Balinese locate the dwelling place of the gods on the mountain. Toward the mountain is called *kaja*. It is the central cardinal direction, like our north. But because Gunung Agung is in a fairly central location, *kaja* is a variable direction. It is north from South Bali, and south from the north. Whether south or north, east or west, *kaja* is always ‘up’, the sacred direction toward God, toward the elation of the summit. It is on the slopes of Gunung Agung where Besaki—the Mother Temple—is located. It is the most sacred of places.



22) Ritual and myth—in Bali and elsewhere—serve as repositories of geo-mythical information. Contained within their movements and rhythms,

their words and vocalizations, are meanings that help participants learn about the land. Landscape is fluid--it flows around us and encompasses us.

As a matrix of meaning, a landscape comes to embody the sensibilities of those who inhabit it. The social significance of landscape can only be discovered through consideration of the cultural processes to which it is linked; the songs, stories, and dances. These intertwine to create an ecology of expressive culture.



23) Hula gestures among Native Hawaiians are imitative, and relate to specific landscapes.

- Touching fingers and thumb pointed upwards means a flower. Flickering fingers mark rain. Palms held flat, vertical, and high signifies a cliff.
- By combining these and other gestures, Hawaiians dance a portrait of place.
- Hawaiians have the word *kama'aina*, which means "child of the land," Warlpiri say *ngura*, which translates as "countrymen," and Malays say, *bumiputra*, literally "sons of the soil."



24) Native Hawaiians protest the drilling of geothermal wells on sacred lands of Wao Kele O Puna. (Pele, the volcano goddess, will retaliate.)



25) This pictograph from Kakadu is of Algaigho, the Fire Woman. Algaigho has four arms, and banksias flowers attached to her head. She planted banksias in the woodlands, and used their smoldering flowers to carry fire. People are cautious of Algaigho, because she burns people, and they avoid her Dreaming site on the Arnhem Land Plateau. Like other

Dreaming phenomena, nature can be good *and* bad, beneficial and destructive. Among Warlpiri, sacred places are always dangerous places.



- 26) This is an image of Wolof speaking peoples in Senegal
- Spirit of the Village Festival in Yoff (they call her a genie)
  - A weeklong event (daily animal sacrifices)

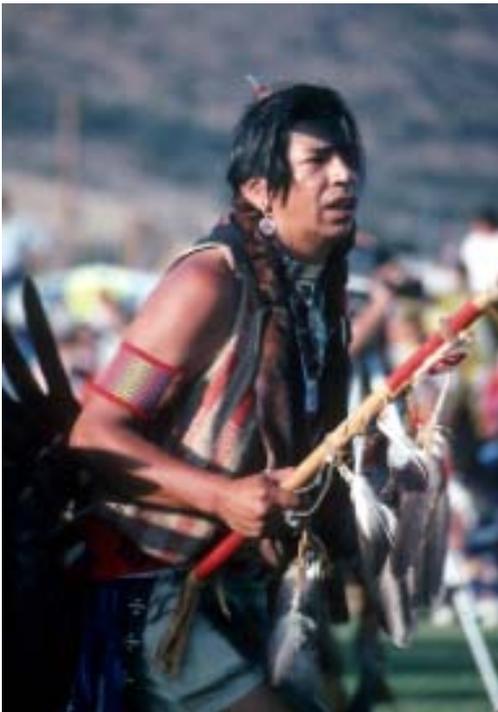


27) The festival and rituals honor the spirit of the land that sustains the people. (Lion Dancers)



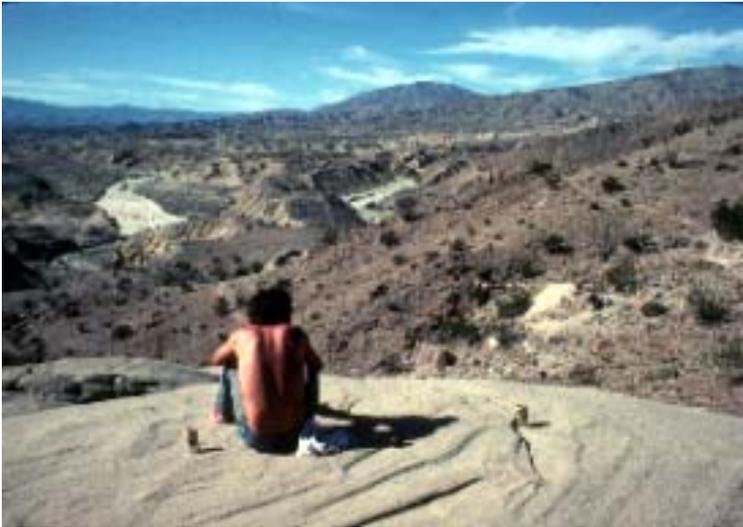
28) The tablita on this young Laguna Pueblo dancer's head represents the Emergence Place, a spring near the pueblo in New Mexico.

- Laguna people emerged from the underworld here, but not until after their encounters with various phenomena taught them that they could become a people, a culture, only through their viable relationship with the land. (In mythic times, people existed in the underworld....)



29) Traditional Lakota Sioux religion of the North American Plains is intensely personal, guided by voices heard, powers felt, and visions seen.

- Power manifests itself in the rays of the sun as well as in the crawling ant and the stinging mosquito.
- Realizing that the dominant American worldview is not working for them, many Lakota are seeking meaning from their cultural roots.
- There is a revitalization of aspects of traditional culture, including vision quests, animal spirit-guides, and sacred sites.



30) Annually, millions of people make pilgrimages to the world's national parks.

- Nature tourism has evolved as a means to enable us to reconnect with the sacred landscapes of our heritages.
- While we might dismiss the tourist experience of national parks as trivial, even destructive, it nonetheless reveals the power of native landscapes to reflect our myths of who we are, and where we belong.

## DISJOINED VALUES

People construct mythologies to fit the land; to affirm and express their place in the world. In the industrialized world, the substitution of these earth based mythologies for materialism parallels the loss of fundamental contact with the land, and relates to a host of problems that are becoming increasingly apparent. Often, our solutions are inadequate to solve the

ecological problems facing us--the very direction of our thoughts and policies repeatedly lead us deeper into trouble. Any solution derived from the same paradigm as the problem seems only to worsen things. Moreover, our emotions no longer seem oriented to make us *want* to deal adequately with those problems. We cannot seem to help desiring the very things that are destroying the world we long to treat with respect.

To understand contemporary thoughts and values (many of them ecologically dysfunctional), we have to recognize their roots--roots that inevitably have earth clinging to them. We have much to gain from understanding the thoughts and values of others who live in very different relationship with the land. Such recognition enables us to both appreciate and critique our views, and to comprehend more fully our own relationship with nature.

## REDISCOVERING GEOPHILIA

At the heart of my geophilia supposition lays a troubling paradox: most of us accept the significance of the crisis we call environmental, yet are participants in trajectories that bode enormous ill. We have become, for example, obsessed with information technology at the expense of more subtle and sensual relationships with Earth, and with each other.

Technophilia, unlike geophilia, is not dependent upon a structure of caring relationships but on a structure of control. Many of the megatechnologies we have developed function antithetically to recovering a meaningful relationship with the land. Technology can seem to justify the fallacy countless people are so eager to believe; that nature is irrelevant to us.

Many of us celebrate the benefits of modern technologies; an improved standard of living, greater speed, increased choice, greater leisure, and more

luxury. These "improvements" are, of course, arguable; but even if they are true, we must ask ourselves at what expense they come. None of these benefits, for instance, informs us about social justice, or the ability to sustain life on Earth.

Cyberspace, the hyperreal, and even Disney's antiquated autoanimatronics are simulacra, a term used by Jean Baudrillard in discussing our inclination to believe that the abstractions of post-literate cultures and the indirect orality of the media are more real than lived experience. Nature on TV is better and more authentic, we have come to believe, than the real thing. From genetic engineering to the "forests" of modern tree farms, we have redefined reality to be that that is reproducible and simulated. A danger in this, of course, is self-deception, the ultimate purpose and meaning of which is to feign human control over nature. In the process, we are giving rise to the extinction of experience.

Our present experience of human/nature relations is based upon suppressing innate responses in favor of intellectual abstractions about the "global village" and other such ill-ecological notions. The global perspective marks the triumph of technology over cosmology. It could be argued that the notion of a global environment doesn't mark humanity's reintegration into the world, but signals a process of separation. Think of the seminal image of Earth from space. It appears that the world can best be witnessed by leaving it. The movement toward global imagery is, perhaps, one in which the world is further distanced from the matrix of our lived experience.

Whatever you've rejected you've also lost. This creates a longing, and you try to bring that rejected part back. An example I used in a recent publication (co-authored with Paul Tacon), is that in the U.S., there was a coin being minted with a buffalo on it at the same time buffalo were being

exterminated, and the face of an Indian at the same time there was a policy of genocide against Indians. Currently, subdivisions are being built on land that has been bulldozed and flattened. Their streets are then named, longingly, after what had previously existed there; Cougar Court, Meadow Drive. My brother lives on Rolling Brook Lane in Santa Barbara, which no longer has either undulating topography or a brook. The trick is to bring back that which we have lost in an organic, and meaningful way.

Let us ask ourselves how we can recover a sense of our biocultural alliance. A crucial dimension of geophilia is moral, human, and relational. It is, then, essential for us to regain a notion of ourselves as extensions of the land before we can hope for substantial ecological recovery.

If being united with place is critical to the healthful and meaningful existence of all animals, as I believe it is, then a central concern is how to recover human affiliation with the land. There are many paths that cultivate geophilic values and lead toward restoration of our fractured relationships. Seven of them I'll outline now. Each of us, I suspect, can add others to this list:

- 1) Take Pleasure in the Land; In natural places there is self-discovery. Learn about the social and ecological communities of your bioregion, for we cannot love that which we do not know. Through reinhabitation we can begin to dwell in ways that respect ecological limits, and engender social justice. The challenge is to expand our understanding of how human existence derives sustenance and spirit from its connection with the diversity of natural landscapes
  
- 2) Imprint Nature; Imprinting is an irreversible learning at a critical stage of development, wherein an individual attaches consequential

meaning to an 'external' object. It is part of the development of all young animals, and is not easily unlearned. By facilitating early environmental education we can imprint nature, thereby awarding our youth a strong and lasting kinship with Earth.

3) Restore; Ecological restoration is about taking action to restore the health of the land, and being accountable for the world in which we live. By engaging in restoration we accept a forsaken responsibility, and we participate in a partnership ethic with the land. I should note--and not just parenthetically--that current *human* systems also need restoration. We must honor diversity, and ecological diversity may well be correlated with human diversity.

4) Explore; Mapping and exploring are ways of learning about the land. They enable us to envision the world and the human place within it in socially and ecologically creative ways. Moreover, mapping and exploring our *values* enables us to criticize and imagine at the same time, to deconstruct dysfunctional patterns of behavior while we reconstruct new ones.

5) Engage in Symboling; Arts, rituals and metaphors arouse emotions; they heighten awareness, bring us fresh insights, and enable us to become more conscious of connections between the world and ourselves. And appropriate symbols are sustaining; they help us to better utilize the landscapes that cradle us.

But I would caution us about the kinds of symbols we use. The metaphor of "Mother Earth," for example, is disturbingly deceptive.

Earth as mother has a long and honorable history, but it is a disingenuous metaphor for a spiritually hollow, industrial, patriarchal society, and has been used to deflect accountability.

A senior vice-president of Exxon, for example, invoked the Mother Earth metaphor in defending the insufficient cleanup of Alaska's Prince William Sound after the Valdez oil spill; "The Sound," he said, "flushes itself out every 20 days. Mother Nature cleans up and does *quite* a cleaning job." It's as though we delude ourselves with this mom-will-pick-up-after-me assumption.

6) Garden; When practiced ecologically, gardening can help preserve cultural and biological diversity and nurture the human spirit.

Ecological gardening is a form of restoration that helps transform the way we think and act.

7) Defend Wild Places and Practice Ecology; Reintegrate knowledge and action; live as a relational and connected being. We have come to think of nature as something other than ourselves, and we live with the delusion that we are no longer subject to the ecological design that governs life. Living ecologically and defending wildness enables us to renew an ancient covenant with the land. Defense of wildness is defense of self. Sentiment without action is the ruin of the soul.

Geophilia, even though it *may* have a partly evolutionary basis, is not some universal hereditary program hard-wired into our genes. If it were, we wouldn't be in the environmental mess we're in. I do not purport that people

are necessarily aware of their needs or that environmental preferences are ubiquitous. What is suggested by geophilia--and this is controversial enough--is that our innate responses and learned reactions to landscape are biased in particular directions by our evolutionary heritage.

The ultimate raw material for our humanness is rooted in natural processes. Part of what it means to be human derives from careful reflection on the natural history of place. I am now compelled to revisit my initial question; "What does it mean to be human in place?" The answer is at once simple and complex: we are integral parts of the integrity of this earth. We are derivative, and Earth is primary. We are, each of us, conscious, breathing chunks of earth.

Place-making is universal, yet its essential roles and cultural implementations are not adequately understood. What we widely do know is that place-making is a way of constructing cultural histories and identities, of fashioning versions of "what happened here" and "where we came from."

It seems remiss to discuss the sense of place without reference to Canberra. Canberra feels like a cohabitation site to me; where people and birds co-mingle with entwined destinies. The avian life is not just abundant and striking, but embedded in the Canberra psyche. From the egg-laying chooks that many families have, to the elusive and rare shiny black cockatoos, birds are central to this community. People are quite affectionate toward the birds; they speak fondly of their interactions with them (conversations frequently touch on bird antics), and they reference bird songs and calls as familiar markings of 'home', (Bernadette told me how comforting it is to hear the falsetto boobook calls upon returning to Canberra from trips away; it gives her a clear sense of home).

In order to comprehend more fully human relationships with the natural world, we should ask not just *what* nature means, but *how* nature means. Ecology has demonstrated that rather than discrete ecological communities, there exists a continuum of communities that blend together. Ecological communities are only relatively self-sustaining; none is fully independent since air and water flow across the planet and animals migrate between bioregions. Intersections between adjacent ecological communities are called ecotones, and tend to be biologically and culturally rich. Human populations appear to have always positioned themselves at ecological boundaries--ecotones--where they can move between zones to take advantage of diverse and abundant resources.

The Cahuilla people of southern California, as one example among thousands, have elaborate myths detailing how the landscape came to be. In Cahuilla stories, Coyote is held in esteem because he is said to have brought mesquite seeds down from the mountains. Mesquite seedpods were a mainstay of the traditional Cahuilla diet, and mesquite continues to be a culturally important plant. The Cahuilla version of how mesquite colonized the valleys is likely a literal one; coyotes feed on mesquite beans but do not digest the seeds, so it is probable that the plant was spread from the higher elevations to the lowlands in coyote scat. Because of Coyote's actions Cahuilla held coyotes sacred and never killed them.

Perhaps if we recover a narrative way of knowing, a knowing that has been devalued in scientific thought, we can begin to heal our alienation from wildness. Geophilia is one piece of the great mosaic of wildness. The vital, sustaining relationships of geophilia can celebrate our construction of wild nature, commensurate with our experience of it as wild humans. What may

emerge is an ecology without borders and the understanding that there is more than one kind of knowing.