The Child’s Environmental Amnesia—
It’s Ours

Peter H. Kahn, Jr.
University of Washington

I was 17 at the time. My two friends and I headed northeast on horseback aiming for the edges of the Yolla Bolly Wilderness in Northern California. By the afternoon of the first day, we were in what to us was new country. We crossed a river, and traveled trails heavily overgrown with brush. We managed perhaps 15 miles. That night we were surprised by a torrent of rain and our cheap plastic tube tents allowed our sleeping bags, which were meager to start with, to end up as wet feathered clumps. We figured we could make do without sleeping bags. So we continued east, up onto a high ridge in the Red Mountain area, and then we looped south as the snow began to fall. We had seen on a map that an old guest lodge, owned by the closest thing this area had to a land baron, was somewhere further south by a lake. We kept our horses pointed that direction, and at a pretty steady trot we arrived by late afternoon. We then found our way into a small rustic guest cabin, locked up though it was, and I’d prefer not to mention more about our method of entry except to say that the light snow had mixed with cold sleet and we were frigid cold, nothing mixed about it. On the third night we camped beneath the summit of Castle Peak. Huge forests, primeval. No rain, just cold. We collected a night’s worth of wood, built a large fire, and lay beside it, half of our bodies burning from the heat and the other half freezing from the cold. We knew this was good living. We also knew it wasn’t so shabby back at the ranch. The next day we rode 25 miles home and called it a trip.

I came of age in these mountains. I lived in these mountains. Now, at best, I can say I am a man who lives on 670 acres.
I consulted for a few days at a zoo. During a lunch break, they showed me their new DVD, titled *Born to Be Wild*. They were aiming for the youth, they told me. The music was fast and a little catchy and the lyrics repeated the title, “born to be wild, born to be wild,” with footage of happy kids and zoo animals in the background. I hadn’t a clue how anyone parsed it: wildness with animals in captivity. The zoo was also proud of their new leopard exhibit which had water in front, like real habitat they said, such that the leopard could cross the tiny channel and look into the depths of the water, and I was asked to pay attention too to the fake dead trees that the leopard could climb. The entire compound was heavily fenced. Perhaps 1,500 square feet. In the wild, how far does a leopard travel in a day? A week?

A reporter visits a Trappist monastery for two days and writes a nice article about it in the *New York Times*. I could feel some of the quietness of the location. But he describes the monastery as “utterly remote” because it was up a dirt road a mile.

According to Elizabeth Marshall Thomas (2006) in *The Old Way*, the Bushmen of the Kalahari lived within about one hundred thousand square miles, and she estimates the population density at about one person for every ten square miles. She and her family first arrived in Africa in 1950 and lived among the Bushmen, and one group in particular, the Ju/wasi. Hers is a book of stories, true ones, like the story of hunters who “hunted for eight days without success in heat so exhausting they had to lie covered with sand through the middle part of the day” (95). A story of how hunters could run down a bull eland in 120 degree heat, because fast as the animal is, it’s not adapted for long distances in high temperatures. A story of how the

*Ju/wasi ate about eighty kinds of plants, including twenty-five kinds of berries, five kinds of nuts, sixteen or seventeen kinds of fruits, three or four kinds of melons, four kinds of leaves of which two resembled spinach, eleven kinds of tree gum, and two kinds of beans from pods.* (178)

A story of when she administered the Rorschach test to the Ju/wasi, and the results would in a western culture indicate schizophrenia. Why? Because instead of seeing the ink blots as a unit, they saw them as compositions, focusing on the parts, as they do with the land:

*a freshly broken twig, flattened grass without dew where an animal was resting, the footprints of a certain kind of beetle that begins to move about after the day has reached a certain temperature, each tiny item an important clue as to what has taken place in the vicinity.* (178)

They were a nomadic people, not in the sense that they were always on the move in terms of their encampment, but when adversity arose—water holes drying up, maggot infestation, illness, food supply dwindling, tempers flaring—they moved. Their entire cultural system “was based upon the ability to relocate, and this was usually effective” (161). Effective enough that they lived, as she says, in an ecosystem for 35,000 years without ruining it. How did they move so easily? She has a wonderful passage:
We had tents, cots, sleeping bags, folding chairs and tables, maps, a compass, cameras, film, recording equipment, reference books, notebooks, pens, ink, pencils, disinfectants, antivenin kits for snakebites brandy, cases of canned foods, boxes of dry foods, dishes, cooking pots, frying pans knives, forks, spoons, cigarettes, matches, spare tires, auto parts, inner tubes, tire patches, jacks, toolboxes, winches, motor oil, drums of gasoline, drums of water, bars of yellow soap, towels, washcloths, toothpaste, toothbrushes, coats, sweaters, pants, boots, sneakers, shirts, underwear, socks, reading glasses, safety pins, scissors, a sewing kit, binoculars, bullets, a rifle.

The Ju/wasi had sticks, skins, eggshells, grass (62).

There are different metrics for assessing freedom. Being able to move easily through land is one.

According to Thomas, the "hunter-gatherer life of the savannah...it clings to us still, in our preferences, in our thoughts and dreams, and even in some of our behavior" (16). Others, like E. O. Wilson, have long argued, under the rubric of the biophilia hypothesis, that we have an innate disposition to affiliate with nature, dating back to tens and even hundreds of thousands of years in our ancestral heritage. Wilson (1992) writes that an "enduring environmental ethic will aim to preserve not only the health and freedom of our species, but access to the world in which the human spirit was born" (351).

Every day I heard logging equipment at work on the 320 acres above my cabin. It was not the first time. When I was here as a kid, it was old growth. Georgia Pacific cut it first, if I remember correctly, then Louisiana Pacific a second time, and then a third, and by the fourth I cried. Nothing left and so they sold it. The new owner disagreed, and he went at it, despite 50 degree slopes in places. It was a wreckage. The "big" timber left standing was 11 inches in diameter. I had written this owner, asking if he would be interested in selling the land after the logging. I would love to see that land have a few generations to heal, and then prosper, if that’s possible. The owner named a price that seemed three times too high. He provided me with a spread sheet of a timber harvest schedule that showed profit in 60 years.

I talked with my neighbor Horse, a hardworking all-in-one Cowboy Logger Indian Hippie Trucker White Man who has lived here all his life, about this land. He was surprised by the owner's asking price. "It's been skinned," he said.

What happens when we skin the earth?

Decades ago, Aldo Leopold (1949/1970) characterized one of the problems. He wrote:

*It is inconceivable to me that an ethical relation to land can exist without love, respect, and admiration for land, and a high regard for its value. By value, I*
of course mean something far broader than mere economic value; I mean value in the philosophical sense. Perhaps the most serious obstacle impeding the evolution of an land ethic is the fact that our educational and economic system is headed away from, rather than toward, an intense consciousness of land (261).

The owner sees only the economic value. That's why he bought the land, and that's why he'll sell it.

We had tried to stop the logging. We wrote lengthy letters to the commission that had the authority over the owner's timber harvest plan. We wrote personal letters to the head of the California State Forestry Commission because we thought he might be sympathetic since this was his area: he was the "land baron" who owned those guest cottages on that lake. He had made his way to Sacramento, the state’s capitol, and into politics, like land barons of past and future no doubt. Surely he would care. We spoke of the 50 degree slopes, of the effects of the logging on our watershed, on the habitat, on just about everything. We never heard back from anyone. The land was so steep that equipment couldn’t work on much of it, and they had to send cables from above to drag the logs up. Strip logging, vertically.

I thought it couldn’t get any worse—the destruction was done. Then a young guy bought the land. It is said that during the summer months he has three pumps going 24 hours a day, pumping water out of the creek; that he hires illegal immigrants who scatter when approached; that there are open gasoline cans lying by the creek that leads to our water supply. It is said that large quantities of marijuana are being grown, and perhaps there’s an underground meth lab, too. I hear guns blasting, dogs barking. I knew one of his caretakers slightly; he was a man who was half crazy when he was half drunk which was most of the time. Of course, the land could be subdivided with the same activity multiplied by the number of new owners. Dare I even think that I should be thankful for the rich growers who can afford larger tracts of land?

I was in the Yolla Bolly’s last week. I drove to the trailhead because I’m not brave enough to walk to the mountains anymore. I need the safety of a wilderness boundary. I camped at the foot of Solomon peak, my tent nestled on a tiny bow of land above the rushing of spring snow melt. In the morning, sunny, warm, clear, right from camp I head a thousand feet up the face, snow and rock clamber to the top. Shasta a few hundred miles to the northeast, where years ago I had stood on top and now with eyes connect past to present. South Yolla Bolly to the west a few miles: an innocent winter trip of youth and love. Castle Peak to the west: that trip of cold adventure. The Balm of Gilead. Windy Mountain. Everywhere I look are bonds of life. I step off the north face of Solomon, facing inward, kicking steps, ice ax sunk deep. I remember what I was taught by Lucy and Shari, Everest-bound mountaineers, in the Chugach range of Alaska. They made it clear to all of their students: always two points of contact. Either one of the feet and the ice ax, or both feet, but only one of the three moves at a time. The first little bit is the steepest, perhaps 60 degrees, like climbing down a ladder. I’m all alone. I used my
truck to drag a tree out of the road while driving toward these mountains. No one
had signed the trailhead register since last October, six months ago. I'm careful.
The terrain below me eases and if I fall I figure to self-arrest on the slope below.
For decades I've eyed this line off the peak. It's clean and direct, and today the
snow conditions are perfect. I kick solid steps down, that’s the ladder, and then
turn sideways and follow the line further down to the saddle. The ridge is too
jagged and steep, so I drop off to the west and bushwhack traverse through the
forest and snow for an hour and then hit the ridge again. I see now that I'm moving
too slowly to summit Sugarloaf too, so I circle down to a basin, and then start
climbing back toward a different ridgeline below Solomon. It’s another line that I’ve
always eyed and never dared, but today I know the snow. Toward the top, I get
back on a spine, steep on both sides, and I climb the last hundred feet straddling it,
one foot on each side and my ice ax dead center, always two points of contact,
sweat dripping from my brow, arms strong, and then that moment of forever, of no
beginning and of no end.

In one of my earlier studies, we interviewed inner-city African American children in
Houston, Texas about their environmental views and values (Kahn and Friedman
1995). We found that about two-thirds of the children understood ideas of air and
water pollution in general, but only one-third of the children believed that these
environmental issues affected them directly. How could this be? After all, Houston is
one of our country’s most polluted cities. How could children who know about
pollution in general, and who live in a polluted city, be unaware of their own city’s
pollution?

One possible answer is that if one’s only experience is with a polluted environment,
then that condition appears not as pollution, but as the norm, or baseline, against
which more polluted states are measured.

In my 1999 book, The Human Relationship with Nature, I began to extend this
interpretation. I suggested that the psychological phenomenon that appeared in the
Houston children can occur any time individuals lack an experiential comparison by
which to judge the health and integrity of nature. I’ve seen it played out many
times in this area of Northern California. A family moves to a piece of forested land,
say 640 acres, a square mile, which has already been logged numerous times in the
last century. These are usually good people. They might well view themselves as
environmentalists. They might be members of the Sierra Club. But like most of us,
they need to make ends meet, and so they look around at the natural resources, the
timber, and they say: "Well, there should be a way of taking some timber here, and
still leave some good trees. You know, all of us use wood products, so it’s kind of
hypocritical to be saying no logging." So they log. Then they say, “You know, 640
acres, what are we really going to do with that much land? And if we sell some,
then we can make our land payments.” So they subdivide the land into four 160
acre parcels, keeping the nicest parcel for themselves. Families from more urban
areas now buy each of the remaining 160 acre parcels. These, too, are usually good
people, even environmentalists. And they say something like: "Well, there should
be a way of taking some timber here, and still leave some good trees. You know, all
of us use wood products, so it’s kind of hypocritical....” So these families log the land, and afterward subdivide into 40 acre parcels, if the zoning laws allow. Notice how relative is the concept of “good.” Each logging degrades the land more, but each person assesses the health and integrity of the land relative to the more degraded conditions (often in more urban areas) from where they came, and not to the land’s condition as it was even a year before.

I believe that what we have seen in the children in the inner city of Houston and what underlies the above land scenario is the same psychological phenomenon that affects us all from generation to generation. It’s what I’ve called “environmental generational amnesia.” I believe that in childhood people construct a standard, a baseline, for what is the “normal” environment, and they use that baseline to assess environmental degradations later in their life. Unfortunately, with each ensuing generation, the amount of environmental degradation can and usually does increase, but each generation sees its environment as the norm, as the non-degraded condition. The upside is that each generation starts afresh, unencumbered mentally by the environmental mistakes and misdeeds of previous generations. But the downside is enormous in that each of us can have difficulty understanding in a direct, experiential way that the nature as experienced in our childhood was already environmentally degraded. Thus we’re constructing our environmental ethic, and structuring our relationship with nature, based on incomplete and partly inaccurate perceptions and understandings.

Others have spoken of this problem. For example, Pauly (1995) has written of the “shifting baseline syndrome” of fisheries:

*Essentially, this syndrome has arisen because each generation of fisheries scientists accepts as a baseline the stock size and species composition that occurred at the beginning of their careers, and uses this to evaluate changes. When the next generation starts its career, the stocks have further declined, but it is the stocks at that time that serve as a new baseline. The result obviously is a gradual shift of the baseline, a gradual accommodation of the creeping disappearance of resource species... (430).*

Along similar lines, in terms of humans adapting to disease, Dubos (1980) has argued: “Any disease, or any kind of deficiency, that is very widespread in a given social group comes to be considered as the ‘normal’ state and consequently is accepted as a matter of course within that group” (250-251).

The National Park Service recently commissioned a report titled: *A Critical Review of the Concepts of “Environmental Generational Amnesia” and “Nature Deficit Disorder.”* The latter is a term Richard Louv (2005) uses in his widely read book, *Last Child in the Woods.* The Park Service asked me to respond to their critique of environmental generational amnesia. Their critique was that I don’t have strong enough scientific evidence. In my response I say that’s true. However, I also note that in their document title they say they’re taking up a review of the “concept” of environmental generational amnesia. But in their review they only examine its empirical base. I also remind them that for more than 20 years the U.S.
government also said that there was not enough scientific evidence to substantiate the hypothesis about global warming. In my response, I use many of the arguments above. I plead for them to take a leadership role in enhancing the human relationship—both domestic and wild—with the wonderful park lands that are within their trust. Why don’t they listen? Is my voice too small? Do my words run dry?

But it hurts most when it happens with the people I love. For over 30 years we’ve been a community, initially about 12 families. Some of our children have now begun to have their own families. A few people live on the land full time. We come together during the summer solstice, and we make decisions pretty much by consensus. I know that in the years ahead, others’ children and grandchildren will be making decisions with my daughter. It matters how we get along.

In the last few years, there’ve been some hard feelings. Some people think I’m the cause. Perhaps I am. The issue started pretty simply: a new member of our community wanted to build his home in an outlying area of the land, and I voiced concern about sprawl. At a June meeting there were heated discussions. Some people said that new ranchers should have the same freedoms that we older ranchers had some 30 years ago with regard to choosing house sites and other matters. Part of my response was that we’re not in the same situation regarding our experience of the wider land system. I said that 30 years ago we could head in almost any direction. We often hiked an hour up to Windhook and then three miles further west to Wilson Creek, or rode north a long hard day anywhere and everywhere on Haman Ridge, or hiked different overland routes northeast to Suicide Rock, or by-passed Andy’s land, but then headed south and southwest cross-country down to Split Rock and fished the river. That is, most of the surrounding land was accessible. I spoke of earlier trips into the Yolla Bolly, how we would just saddle up and ride. I spoke of how I would love to offer such experiences to our children, and our children’s children, but it’s not possible. The surrounding land has been increasingly fenced and populated, and there is a good deal of activity that makes trespassing dangerous.

We’re on a reservation. Sure, it’s a nice one of 670 acres. But that’s all there is. Here’s the good news: we have some control over this piece of land. The question we need to be asking is this: What aspects of this land provide the greatest gift to future generations, and provide them with the most freedoms? Sprawl happens swiftly, and yet we hardly notice, because it’s just one chunk at a time. About seven generations ago there were no white people in California. What is sustainable activity? People talk about “smart growth,” but nothing can grow forever. What they often mean is, “well, just a little more than what we have now.” I sketched various scenarios of what the surrounding area will look like in even 20 years. All of them involved greater subdivision of land, and more logging, buildings, people, and fences. I suggested that we keep as much of our land open and undeveloped as possible.
As a case in point, I spoke of the controversy that ensued more than a half century ago in the San Francisco Bay Area when developers wanted to build in the Marin Headlands. At that time, they said that their development would be in harmony with nature. Indeed, they put forward beautiful plans with the housing tucked into the hillsides. They argued forcefully that people needed houses, and that it was elitist for conservationists to argue for preserving the Headlands when the conservationists themselves had nice houses. Yet, in hindsight, it seems abundantly clear that the “protectionists” had it right. In the years that have followed, development and traffic snarls have gobbled up the entire Bay Area, from south of San Jose to north of Santa Rosa, and it’s still growing. Nonetheless, because of the protections put in place years ago, Bay Area residents, indeed all of us, have the amazing good fortune to access some of the most beautiful coastal areas and headlands in California. Back then, it seemed to many like an immense area to “set aside.” I said that we faced similar issues of perspective in our current land use decision-making. Sure, we should have houses, and nice house sites. But as another member of our community said beautifully at one of the meetings: One’s site doesn’t have to be perfect. Or how perfect is perfect? I can think of a half dozen spots closer to the main area that, while not “perfect,” could be deeply satisfying for a lifetime.

I spoke and spoke and wrote and clearly I was in the way of progress, frustrating a healthy and wholesome desire from our new group member to move forward in the world on this land. During that next annual meeting, one person said that “Peter’s aesthetic continues to get in the way of everything and is stalemating the group process, and that he needs to be flexible with his aesthetic.” And I wanted to shout, No, it’s not Peter’s aesthetic! Can’t you hear? When I had asked the question—What aspects of this land provide the greatest gift to future generations, and provide them with the most freedoms?—is that aesthetics? Is that like oh I like Mozart but I’m not so very keen on Schumann? Is it like, I just love those yellow daisies in your hair?

I tried to explain that my position is fundamentally not about restrictions. It’s about freedom and human flourishing. The Bushmen mind is not so very different from our own. Experience with rich, diverse, and untrammeled (if not sometimes wild) nature is part of our evolutionary heritage. But without such experiences we forget that knowledge. And we as a culture have been forgetting, that’s our amnesia. If John Muir was about, and he told me, “Peter, you don’t know what you’re missing. Your encounters with nature are too tame, your consciousness of land too restricted. It’s nothing like it was in past generations and it’s nothing like it could still be,” I would hope dearly that I could listen. Leopold talks about educating for an intense consciousness of land. But what happens when we watch “Born to Be Wild” and we feel like we’re experiencing that consciousness? The animals in the zoo—grizzlies, elephants, and great apes, and cougars and cobras—bred in captivity, and adapted to their confinement, are alive, but they’re not fully experiencing their potential. I would like us not to become animals in confinement. That’s part of the reason why our land-use issues are so emotional for me. If we can’t protect open space here, on this piece of land, then where? If not us, who?
In years before, around summer evening campfires, corn on the cob in husks on coals, and the night sky would take hold, gently, and through it from the hillside above would be the company of the spotted owls and the great-horned owls known through their calls. They sound no longer. And my daughter doesn’t miss the sound she never knew.

Peter H. Kahn, Jr. is Associate Professor in the Department of Psychology, Adjunct Associate Professor in the Information School, and Co-Director of the Value Sensitive Design Research Laboratory at the University of Washington. He is also Co-Director of the Mina Institute (Covelo, CA), an organization focused—from an ethical perspective—on the human relationship with nature and technology. He received his Ph.D. from the University of California, Berkeley in 1988. His writing has been published in such journals as Child Development, Developmental Psychology, Human-Computer Interaction, and Journal of Systems Software. He is the author of two books with MIT Press: The Human Relationship with Nature: Development and Culture (1998) and an edited volume (with S. Kellert) Children and Nature: Psychological, Sociocultural, and Evolutionary Investigations (2002). His research projects, funded by the National Science Foundation, currently focus on social and moral relationships with personified robots, the psychological effects of digitized natural information, and Value Sensitive Design.

References


