

THE GEOGRAPHY OF

Childhood



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WHY CHILDREN NEED WILD PLACES



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Never Summer Range, Snowy Range, Wind River Range, Horse Heaven Hills. Rabbit Ears Pass, Togwoot Pass, Lolo Pass, Chinook Pass. Longs Peak, Pikes Peak, Grand Teton, Mount Rainier. Some people remember from childhood the names of cherished baseball or football players.

Others can recite still the multisyllabic names of molded plastic dinosaurs. My own remembered list consists of place-names.

“Stevie, where do we turn?” my father would ask as I stared at the land charted in the folds of paper on my lap. My father, of course, knew which road to take at the next town. He also knew that I loved being trusted to help find our way.

During my childhood in the fifties and sixties, the best highway maps of the western states came from Chevron stations, in places like Rawlins, Wyoming, and Pendleton, Oregon. Stacked in wire racks coated with dust cemented in automotive grease, the maps waited for discovery, state by state. Down the road, I studied the air-brushed mountain ranges and passes and asked my father if I had them right: “Are those the Absarokas?” “The next bridge ought to be the Sweetwater River; tell me when we get there.” He pointed out Big Southern Butte and Twin Buttes, landmarks of the Snake River Plain, and I tried to find them on the map.

I made lists, tallying the states I had passed through, the national parks I had visited. I searched the maps for the little red squares that marked “Points of Interest”; my questions about

these cued my father's steering-wheel lectures about western history and geology. "Maryhill Museum: what's there, Daddy?" "What happened at Big Hole Battlefield?" "The map shows Crystal Ice Cave ten miles off the highway. Do we have time to go?" From my father, I learned about the Lake Bonneville flood, the differences between gneiss and schist, the route of Lewis and Clark down the Clearwater, and how Chief Tommy Thompson used to fish for salmon at Celilo Falls on the Columbia River before the dams.

My father, Don Trimble, worked as a field geologist for the U.S. Geological Survey for more than thirty years. Every summer, our family left home in Denver to spend the three months between school terms in a town near his field assignment, renting a house near whatever quadrangle he was mapping. In my infancy and early childhood, his mapping projects circled Portland, Oregon. In summers from second grade through high school, we lived in southeastern Idaho, in Aberdeen and in Pocatello.

Setting out across the western states, my mother drove our Dodge, my father the government Jeep. When I rode with my mother, we looked for music on the AM radio, hoping for jazz. When I rode with my father, he told me stories. When we all rode together during vacations, we alternated between these diversions. Boxes of gear for the summer's field season filled the rear of the Jeep and the trunk of the car: dishes, clothes, cameras, map cases, a Brunton compass, rock sample sacks sewn from white canvas and permanently scented with acrid basin and range alkali dust, my bicycle (and, once, in the rear window, my pet-store turtle in a Skippy peanut-butter jar, forgotten and inadvertently boiled when we stopped for lunch one day).

Connection to the natural world can begin with snakes, shells, or stars, birds, beetles, or blackberries. For me, connection

started with the land itself, the bones and ligaments of the naked Earth exposed on the rocky surface of the arid West. Geography seeped into me, a bedrock awareness of landscape and place. I learned to pay attention to the flow of scenes framed by the car window. The relatively slow pace and the familiar earthbound perspective of driving made that progression of landscapes comprehensible in a way that today's commonplace airplane travel prohibits.

And I kept staring at the maps. The arbitrarily legislated shapes of national parks printed on them defined the places visually before I ever saw their vistas and wildlife. Today, I close my eyes and conjure these shapes, connected by the meandering red and blue lines of pre-interstate highways, and I can feel the sweaty folds of paper in one hand, the hot rush of air beating and lifting against the other, stretched outward through the open window of the old Dodge.

My childhood in the West—where geology overwhelms biology, lightly vegetated landscape commands attention, and weather is intense—surely gave me an edge in mental mapping. Research suggests that we have map-making genes strung along our DNA, promoting our ability to integrate and organize our experiences of geographic space. Such mental mapping skills clearly gave our hunter-gatherer ancestors an evolutionary advantage.

In researching human development of such cognitive maps, a University of Pittsburgh team of psychologists emphasizes that children and adults begin their descriptions of environments with landmarks. Recognizing landmarks comes, on average, with the full development of the brain, after about four years of age.

Route-finding, remembering a sequence of landmark relationships, comes later. Experience with my own children belies this model: at one and a half, my son chanted, "Mama, mama," as soon as we came within five blocks of home on our return from the babysitter at the end of the day. At two, his sister delightedly spotted her personal landmarks on our drives around town: "There's Kevin's office [our pediatrician]. That's Mom's old work. There's Bartie's house."

Many studies indicate that accurate mental map-making increases with active participation—with walking through an environment. Tying together a sequence of places works even better if those sites are connected by stories. One's own stories surely work best—the ones we create while walking to school or exploring a neighborhood gully. Even preschoolers can learn such sequences—following a baby elephant through a model jungle, for instance, if they learn the elephant's route in association with a story. Only older children can construct maps in which routes and smaller regions fit within some larger frame of reference. Recognizing printed maps as representations of places can happen as early as three years of age, though grasping their complexities proceeds slowly after that, in parallel with developing symbolic and spatial skills (just as Piaget, the dominant theorist of child development, would predict).

My own childhood mental maps of the West were fuzzy except when I could connect them to the stories I knew: the unfolding of our journeys from Denver to Pocatello, the paths of Lewis and Clark or the Oregon Trail traced on the maps, geological "creation legends" absorbed from my father. We learn our homeland from stories, just as we learn nearly everything from stories. Anthropologist Keith Basso has noted that Apache children in the Southwest constantly hear their elders link landscape features with the ethics of living correctly as an Apache. Listen to Benson Lewis, a Cibecue Apache elder:

I think of that mountain called “white rocks lie above in a compact cluster” as if it were my maternal grandmother. I recall stories of how it once was at that mountain. The stories told to me were like arrows. Elsewhere, hearing that mountain’s name, I see it. Its name is like a picture. Stories go to work on you like arrows. Stories make you live right. Stories make you replace yourself.

Each summer evening, my father came home, picked the wood ticks from his clothes, and showered off the dust and reek of sagebrush. After dinner, hunched over the kitchen table, he painstakingly inked his penciled field notes about contacts, dips, and faults onto more permanent mylar maps. In winter, in his Denver office, he worked with the maps still more, writing about the geologic history he had untangled from the land he had walked over. Like most children, what mattered to my father mattered to me. Children notice everything, and with my father as guide, I noticed the land. Once noticed, incoming sensory details needed organizing; they needed names. I grew up valuing the names of landforms, paying attention to where I was in the continent, believing in maps as Scripture.

The first six years of life work their subtle power on us throughout our lives. We remember few specifics. But our bedrock emotional security—our trust—comes from this time. We spend our first years striving to develop what psychologists call “a sense of competence.” This drive for mastery—of grasping, crawling, walking, talking, and play—leads to astonishingly rapid and broad learning.

Recent research has surprised us with how emphatically our behavior and personalities are hard-wired by genetics. We start with our general emotional outlook on the world fixed by the

STEPHEN TRIMBLE

magical code of our genes. The bent of personality that makes a girl or boy receptive to natural history may well be something we cannot instill, but rather something with which an individual starts. Nevertheless, genes work in context. No personality or process is independent of environmental and social dimensions.

Seeing with a naturalist's eye is neither eccentric nor artificial. Human brains evolved in the natural world, not in a clinic or lab. Infants prefer patterns a little different, but not *too* different, from those they have seen before. And so, once children learn "bird," they may naturally move on to observing the differences between a robin, a sparrow, a blackbird, and a jay. Infants push out toward the adventure of the unknown, but only so far: the security of the known tempers their reach. This tension between the old and the new, safety versus growth, dominates much of infancy and childhood.

Tiny humans begin their journeys in the haven of family—a safe place, we hope. They test their wills against the giants, the grown-ups, as they struggle to define unique relationships to the world. Each moves from there into the land, adventuring. The expanse of sky and ocean and prairie humble and overwhelm. Nowhere, it seems, do human concerns matter less. And yet, nowhere else is the simple fact of our existence so exhilaratingly clear. Nowhere do so few trivializing and demeaning assaults on egos exist. Nowhere do humans matter more.

By forging connections with plants, animals, and land, by finding ways to experience some relationship to the Earth, individuals can gain a sense of worth. Herein lies security. Edith Cobb, in analyzing the roots of creativity in great thinkers, found that many had experienced a pivotal childhood "discontinuity, an awareness of [one's] own unique separateness and identity, and also a continuity, a renewal of relationship with nature." Cobb marveled at what can grow from this paradox: ". . . a delighted awareness that knowing and being are in some way

coincident and continuous . . . and that this kind of knowing is in itself an achievement of psychological balance.”

The natural world does not judge. It exists. One route to self-esteem, particularly for shy or undervalued children, lies in the out-of-doors. If, as psychologist Jean Baker Miller asserts, the model of seeking identity by “developing all of one’s self in increasingly complex ways, in increasingly complex relationships,” is desirable, nature is a wonderful place to seek. The sun, the wind, the frogs, and the trees can reassure and strengthen and energize.

The diversity of creatures astonishes us. Cone-nosed kissing bugs and star-nosed moles. Narwhals, sharks, fireflies, and bats. Pythons, tortoises, sequoias. Venus flytraps and black rhinos. Paramecia, amanita; saguaro, tupelo. The endless forms generated by evolution subconsciously reassure us of our own validity. No matter that we differ a bit from our peers: difference is the norm. Understanding difference empowers us to grow and to care. The variety of organisms helps to teach tolerance.

The Earth enfolds people in storm or warm sun, in the glory of light filtering through the canopy of deep woods, or in the eddying flow of rivers—without regard for whether we say the right words, wear the right clothes, or believe the right dogma. We are simply human beings setting out into the sanctuary of fields, woods, desert. We have to pay attention, certainly, or we will find ourselves in danger; nonetheless, the land releases us from competition. Such acceptance restores us for the social fight.

“Mine, mine!” resounds through the halls of preschool. In growing toward autonomy, children assert their control through possession. The thrill of *discovering* objects adds uniqueness and

intimacy to the act. One friend's son collected "dinosaur eggs" all over the West—an increasingly heavy crate of stream cobbles and river gravel. Rocks, bugs, feathers, bones—many of us remember our treasures.

The summer I was eight, I caught frogs. We were in Aberdeen that field season, a tiny town on the western shore of American Falls Reservoir, surrounded by Idaho potato fields strewn with sprinkler pipe and, beyond, the black lava of the Snake River Plain. What mattered to me, however, was the grid of ditches that lined every street and allowed the mostly Mennonite and Mormon families of the town to flood-irrigate their lawns on hot summer mornings. With two buddies, Tony and Billy, the sons of my father's field partner, I searched for frogs.

The frogs were tiny—young leopard frogs. Adult frogs must have lived nearby, but I remember only the delicate animals an inch long. I lay on the banks and peered under the plank bridges where footpaths crossed the ditches. The silver surface of the water mirrored the hazy cloudless summer sky. With luck, a small amphibious head would break the surface, two bulbous eyes peering off to the sides. I lay in wait, then lunged. I harassed far more individuals than I caught, but the captures excited me as much as the first kill must for a boy in a hunting culture. I plunked the little frogs into empty coffee cans to take them home for a night, and then returned them in the mornings, sluggish but surviving.

Simply discovering that the frogs lived in those ditches in our front yards brought the wildness of other beings into my life. I acted with a child's need to handle and possess them. Each frog was distinct, but I had yet to develop any curiosity about the contrasts among groups of frogs, the species and genera and taxonomic identities of the forms of life that writer Henry Beston called "other nations."

Specificity floated into my consciousness one fall midway through elementary school in the form of golden leaves drifting out of the blue Colorado sky to land on the ground surrounding the church a few doors from our house. We lived in west Denver, where suburbs began their climb to the foothills of the Front Range. Our house lay on the plains, with an old farmhouse across the street, a horse pasture behind us, and undeveloped lots scattered through the neighborhood. The Baptist church buildings stood alone on an otherwise empty block. This was hardly pristine short-grass prairie, but native cottonwoods still dropped clouds of cottony seeds on the spring winds and the signature bird of the Great Plains, magpies, flapped from tree to tree.

I went out to collect leaves for a school project, ironing them between two sheets of wax paper and enlisting my mother to type labels for me. I remember the thrill of appropriating the object, the first step, and then, at the next level, of harvesting the power of its name. This was a new kind of knowledge: cottonwood, catalpa, silver maple, boxelder, locust, elm. These sources of power lay around unclaimed and unowned, there for the taking.

Native peoples who still depend on the land for sustenance acquire such power earlier. Their lives depend on attending to the behavior of their prey animals and on their knowledge of medicinal and food plants. This leads to power in an elemental way—an *appreciation* of the power of other lives.

In developing what the philosopher and ecologist Aldo Leopold called the “land ethic,” regard for the wilderness often comes last. First comes a child’s involvement with vacant lots, ditch creatures, and the leaves of “weed trees”—discovering what environmental psychologists Rachel and Stephen Kaplan call “nearby nature.” Such comparatively mundane experiences lay the foundation for what can develop into Edith Cobb’s

ideal, “a living ecological relationship between . . . a person and a place”—topophilia, rootedness, placeness, knowing where home is.

Found objects from nature can define a home and nurture self-esteem. Think back to your feelings as a child: wandering, you find wonders, identify them (sometimes), take them home to your room, show them off to friends, and protect them. No one has a conch shell or chip of obsidian or fragile wisp of snakeskin or sack of chestnuts or nub of deer antler just like yours. Your possession is unique; thus, you are unique. Annie Dillard writes eloquently of such experiences in *An American Childhood*. Here is her description of a 1919 dime she once discovered in her alley:

Treasure was something you found in the alley. Treasure was something you dug up out of the dirt in a chaotic, half-forbidden, forsaken place far removed from the ordinary comings and goings of people who earned salaries in the light: under some rickety back stairs, near a falling-down pile of discarded lumber, with people yelling at you to get away from there.

. . . In spring I pried flat rocks from the damp streambed and captured red and black salamanders. . . . In the fall I walked to collect buckeyes from lawns. Buckeyes were wealth.

The key then is to plant the buckeye, feed the salamander, invent a story about the dime. With these acts of extension, children begin to cultivate relationship—and the concomitant risks and rewards of sharing, of giving, of love. By moving beyond simple ownership they avoid the trap of permanently linking their self-esteem with what is only the first step—acquisition. Eventually, the discovery suffices for power; observation serves as possession; and we leave these objects where we find them, transcending the old dead-end of human domination over nature.

Experiencing this adventure firsthand is crucial. Piaget himself said, “In order for a child to understand something he must construct it for himself, he must reinvent it . . . if in the future individuals are to be formed who are capable of creativity and not simply repetition.” British planner Robin Moore, in his fine study of children’s use of neighborhood spaces, *Childhood’s Domain*, speaks of the powerful “qualities of openness, diversity, manipulation, explorability, anonymity, and wildness” offered by what he calls “rough ground” in the midst of urban and suburban communities:

The indeterminacy of rough ground allows it to become a play-partner, like other forms of creative partnership: actress-audience, potter-clay, photographer-subject, painter-canvas. The exploring/creating child is not making “art” so much as using the landscape as a medium for understanding the world by continually destroying/reconstructing it. Where is this vital activity to be carried on if every part of the child’s environment is spoken for to meet the economic, social and cultural needs of the adult community?

Several surveys reveal where children make their contacts with the natural world; they often name the same key ingredients: small places, trees, and water (brooks and frog ponds). As Gary Nabhan noted in the previous chapter, children favor small places close by—with dirt, trees, bushes, and “loose parts”—to build and dabble in (at their best, within a hundred yards of their homes). Trees, as writer Colin Ward describes them in the British countryside, “can be climbed and hidden behind; they can become forts or bases; with their surrounding vegetation and roots, they become dens and little houses; they provide shelter, landmarks and privacy; fallen, they become part of an obstacle course or material for den-building; near them you find birds,

STEPHEN TRIMBLE

little animals, conkers [chestnuts], fallen leaves, mud, fir cones and winged seeds; they provide a suitable backdrop for every conceivable game of the imagination.”

Middle childhood comes after what psychologists call the five-to-seven shift. The brain is finally fully developed. Children become capable of far more sophisticated learning, what Piaget calls “concrete operations.” In other primates, this shift leads right into puberty. Humans, however, have postponed the hormonal rush until the teenage years, opening up a six-year interval when childhood brains receive and learn in a uniquely fresh, receptive, and playful way. Edith Cobb emphasizes the potency of this time when children are “in love with the universe” and poised “halfway between inner and outer worlds.” Here, she says, lie “latent power and purpose, the seeds of the writer’s art, the painter’s vision, the explorer’s passion.” As Melvin Konner notes in his fine book, *Childhood*: “These are the years when the child is seen by societies throughout the world as a vessel into which knowledge, skill, and tradition—in short, culture—can be steadily and reliably poured.”

Writer and educator Paul Shepard speaks of “the ark of the mind,” a lovely phrase. “A decade, from the beginnings of speech to the onset of puberty, is all we have to load the ark.” With animals, with plants, with place, with sunrises and moonsets. With wildness.

This is the decade that I have remembered in my stories of maps and frogs, the years in which I was a vessel for my teachers, family, and peers to fill. I vividly remember the last travels of those years, park by national park, snapshot by snapshot. The year I turned thirteen, my ability to focus on the same experi-

ences disappeared for a time beneath a haze of hormonal pyrotechnics.

Adolescents take whatever we have given them, and run. On this mad dash, they seem to close their eyes and run in unpredictable directions. As parents, we try to keep them from running off cliffs. We hope they will climb mountains and not be trapped in one or another disastrous morass. But our control is disappearing fast. Our children are off on their own journeys, carrying with them whatever we have given them, knowingly or unknowingly.

Adolescence for me was too early to feel a part of the naturalist and philosopher Joseph Wood Krutch's "great chain of life," to understand the land in context, with an awareness of interdependencies. I neither knew enough nor had sufficient experience. Adulthood legally begins at eighteen or twenty-one for good reason.

I turned twenty-one and entered adulthood in several of the usual ways in 1971. And I returned once more to learning the names of trees.

For a college field project in an introductory botany class, I censused conifers along a thousand vertical feet of switchbacking trail on St. Charles Peak in Colorado's Wet Mountains. I learned to identify six evergreens in addition to the deciduous aspen I already knew, and analyzed their elevational distributions and limits. Never before had I noticed the specificity of trees in their environment. Now, I did. Douglas fir. Engelmann spruce. Common juniper. White fir. Subalpine fir. Limber pine. Seedling, sapling, adult.

In retrospect, knowing where an awareness of trees has led me, I see the discovery of their lives as just as pivotal as any other landmark of maturing. For the first time, I passed into what biologist E. O. Wilson calls "the naturalist's trance," when my con-

STEPHEN TRIMBLE

nections to other creatures mattered as much as my humanity. I saw details with a little of the attentiveness of a writer. My ability to see and understand beyond my personal boundaries passed a crucial threshold.

Ever since, I have seen these trees as my friends. When they grow along my path, I reach out to them, draw their needles through my hands, and smile. I say their names, an acknowledgment of kinship—like a formal genealogy, another chapter of Scripture. *Pseudotsuga*. *Picea*. *Juniperus*. *Abies concolor*. *Pinus flexilis*.

"Pseudotsuga. Douglas fir. I am here, too."

Not every child has the predilection to become a naturalist. And it may take time to develop. For instance, I did not see beyond my adolescent self until twenty-one.

I started lucky—with a secure middle-class background, decent self-esteem, curiosity, and a privileged education. My childhood experiences with maps and geography and exposure to open country gave me an underlying understanding of environment ready to populate with animals and plants. Not until chance encounters in my last years of college, however—my best friend's passion for field biology, another friend's stories of working as a park ranger, encountering mentors—did I begin to *see* as a naturalist, watching the telephone poles for raptors, carrying binoculars to identify the warblers in riparian woods, learning the telltale characters of borage, mustard, and sedge. Only then did I come to believe that natural history was as important as civil rights, American literature, or having a romance in one's life. And not until I began to read the literature of natural history could I articulate my belief in the Earth as grounding and faith and guide.

None of us can predict or control the career or avocational choices of our children. All we can do is introduce, try to prevent prejudice, battle gender stereotypes, teach by the example of our own attention and wonder. All we can do is recite from the Scripture of maps and field guides. Give names to the mountains and rivers, give names to the trees. Give voice to the emotions that storms and tundra flowers, young bison and soaring ravens can pull from us.

As parents, we can take our children with us to the land. We can be there with them as they climb on rocks, play in streams and waves, dig in the rich soil of woods and gardens, putter and learn. Here, on the land, we learn from each other. Here, our children's journey begins.

S.T.