Ecological discourse in Craig Childs's *The* Secret Knowledge of Water

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Abstract

This essay analyzes the ecological discourse used by Craig Childs in his creative non-fiction work The Secret Knowledge of Water. Childs attempts the tricky rhetorical approach of translating nature's "voice" into text, while trying not to personify or idealize the environment. He uses ecological discourse not as an end, but as a means to give readers a biocentric perspective. Childs describes the non-verbal "conversations" between humans and nature, to help his readers locate themselves within the landscape and begin to understand the role they play as a part of a dynamic natural system.

Nature writer Craig Childs brings modern, urban America into conversation with the natural world. His ecological discourse is the result of long backpacking trips into the Southwestern wilderness where "he interprets messages left in marks on the ground and in scents on leaves and trees, and communicates with animals directly using their own language of stares, gestures, postures, sounds, scents and gaits" (*Publishers Weekly* 44). After returning from these remote desert landscapes, he "translates their primal voices into a taut and unsentimental narrative of exploration" (Christensen). Childs joins the tradition of nature writers like John Muir, Mary Austin, and Edward Abbey, who "read" the landscape and transcribe what the landscape "says," hoping to arouse in modern readers a greater awareness of and appreciation for the non-human life all around them.

The motif of meaningful dialogue between humans and nature has its roots in oral folktales. Storytellers world-wide have recounted the wise words spoken by wind, river, fire, mountain, tree, and animal that guide the human hero through "the gateway to knowledge and understanding of cosmic significance" (Butterfield 107). This narrative device emphasizes the audience's interrelationship with the living landscape, including respect for its inherent value and recognition that its health directly affects the human community's survival and prosperity. Like the traditional storytellers, "Childs makes it clear that any observer with enough humility and

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patience can witness the subtle ways in which raccoons or spotted owls communicate on their own turf—and can, perhaps, send the occasional human signal in return" (Green 59). He shows readers how to communicate in the language of the natural world, and why it is worthwhile.

A standard opening for traditional folktales is a version of: Long ago when animals and humans were the same and spoke the same language... (Jennings & Ponder). In the years since the long ago, however, Western civilization has disrupted the nature-human dialogue by adopting mechanized and human-centered discourses, such as rationalism, industrialism, Christianity,

and commercialism.¹ The narrative of modern life is an anthropocentric monologue that reduces nature to an inanimate commodity to be possessed, enhanced, consumed, and discarded (Wolfe). Distracted by financial success and technological progress, members of Western society have lost their deeper purpose and respect for place, which allows them to rationalize its exploitation and destruction (Heise 507). As Wendell Berry argues, the failure of humans to maintain a harmonious dialogue with nature is causing the deterioration of both nature and culture (143).

In response to this crisis, the Deep Ecologist movement provides a "new" vision (one certainly familiar to indigenous storytellers): "Rejection of the human-in-environment image in favor of *the relational, total-field image*. Organisms as knots in the biospherical net or field of intrinsic relations." (Naess 3; his emphasis). Critical of the longstanding portrayal of nature as a separate and adversarial entity, these authors recast the nature-human relationship as an interdependent partnership and reestablish an ethic of mutual respect and cooperation. "[A] land ethic," writes Aldo Leopold, "changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it" (240). However, in order to convince people to adopt a land ethic, nature writers must rely on the written word, a paradox since language automatically asserts human superiority and disrupts non-verbal discourse with the natural world.²

Nevertheless, Deep Ecologist authors, including Craig Childs, embrace this challenge. Texts like Childs's *The Animal Dialogues* and *The Desert Cries* engage readers in ecological discourse, an articulation of nature's intrinsic value and humanity's responsibilities as a member of the biotic community.³ These writings spring from the author's interactions with the environment and characterizes his relationship with the non-human as an uninterrupted, cooperative existence, rather than a temporary vacation or incursion into an idealized or hostile landscape. The challenge for Childs and other nature writers, then, is to transcribe the voice of nature without completely co-opting it, to describe the inner workings of a diverse ecosystem without limiting it to mere words on a page. I recognize the difficulty of this approach since my essay relies on the metaphor "voice of nature," by which I mean nature's non-personified authority as a speaking subject that communicates, in its own way, to all living beings, including humans.

For Deep Ecologists, effective ecological discourse means articulating a personal relationship and understanding of nature that transcends language (Edwards; Smith). Romantic poet William Wordsworth, who could be considered a proto-Deep Ecologist, dramatized this process multiple times. In *The Prelude*, his boy of Winander initially exerts mastery over nature by mimicking an owl's hooting, taunting the owls rather than truly attempting to communicate with them. When the owls realize the boy's insincerity, they fall silent. The boy then listens deeply to the wildness of the landscape and the wildness within himself, which causes him to discover "far into his heart the voice / Of mountain torrents" (5.408-09). Through Wordsworth's ecological discourse, the boy locates himself within nature and it within him, providing the boy, and the reader, a deeper comprehension of the nature-human partnership.

The Deep Ecologists have taken an important step beyond the Romantics. According to Michael Cohen, author John Muir rejected the Romantic "pastoral conventions," particularly the "patriarchal business" (210; his emphasis), and adopted a pastoral realism, which included directing readers to "a middle ground between the wilds and the city" (211). Childs, like other important twentieth-century nature writers, follows Muir's lead in his own writing, which reviewer Michelle Green calls "[r]eflective but not romanticized" (59). Childs's ecological discourse in *The Secret Knowledge of Water* (2000) encourages readers to develop a cooperative relationship with the natural world rather than patriarchal relationship over it.

Childs has authored eleven books, numerous articles for major newspapers, and frequent commentaries for NPR's "Morning Edition." Reviewers praise his work, placing it alongside legendary nature writers like Edward Abbey, Mary Austin, Barry Lopez, and John McPhee (Kirkus Reviews; Publishers Weekly 77). Childs's writing reflects his own interdependent relationship within the environment: his family lives off the grid in western Colorado, and he backpacks for months at a time in the Southwestern wilderness (Ford 65). Before becoming an author, Childs worked as a river guide and a natural history field instructor. He earned his master's degree in Desert Studies at Prescott College, conducting research on the natural history of water in the American desert by mapping tinajas in Cabeza Prieta Wildlife Refuge for the U.S. Fish and Wildlife Service. This search for rare and hidden desert waterholes later became the subject of "Part One—Ephemeral Water" in The Secret Knowledge of Water. In 2003, Childs joined respected nature writers Wallace Stegner, N. Scott Momaday, Leslie Marmon Silko, and Terry Tempest Williams as recipients of the Spirit of the West Award (Lee 184).⁴

Although Childs and his fellow nature writers do not use human discourse in their personal interactions with the landscape, their communication of this interaction to readers requires the written word. The application and analysis of human discourse, often defined as "language use in context" (Carter and Simpson 8), is important because "without understanding discourse, we cannot understand our reality, our experiences, or ourselves" (Phillips and Hardy 2). The use and study of ecological discourse is also crucial. Like human discourse, ecological discourse is simultaneously a physical, intellectual, and cultural act that builds a deeper sense of respect and community (Gee). Henry David Thoreau believed experience is the best language of natural knowledge, yet he wrote numerous books and essays expressing his experiences. In Walden, he describes putting down his books to hoe beans and watch animals. His words, such as: "I grew in those seasons like corn in the night" (105), have inspired further ecological discourse for over a hundred and fifty years. More recently, Childs's words in The Secret Knowledge of Water describe the biological realities and metaphysical inspiration of existing as part of a biotic community. His ecological discourse is less about sharing scientific data and recounting exciting backpacking adventures than it is expressing an ecocentric outlook, whereby readers begin to comprehend and grapple with humanity's eco-reality and biological selfhood.

Childs's books are artistic, unsentimental expressions of humanity's kinship with the natural world, which acknowledges the limitations of language, particularly the inappropriateness of speaking for nature; he reminds readers at one point that although his stories "say something about the place, ... the stories are not the place" (40). His personal narratives, historical background, ecological data, illustrations, and extensive bibliographies are a means rather than an end. I believe he intends his words to lead readers away from the book, preferring to inspire readers, as other nature writers have, to engage the "voice of the Earth" (Roszak 308) themselves and develop a "biocentric perspective that emphasizes kinship, even equality, between humans and other forms of life" (McClintock 3). Reviewers Genevieve Stuttaford and Maria Simson write that "[i]f animals in the wild could explain their actions and predatory

instincts, they'd choose Childs to interpret these explanations to other humans" (80). However, Childs's writing merely presents a path to ecological and philosophical understanding; it is up to the reader to undertake the journey to eco-literacy.

Childs's goal is to engage and instruct his readers in a non-verbal discourse of the natural world. He uses what Timothy Morton calls "ambient poetics" (52) to communicate the indescribable, reminding readers that they exist as part of a dynamic ecosystem. His approach is similar to Chickasaw author Linda Hogan's, who refers to the natural world as "alive and conscious" and states: "I write out of respect for the natural world, recognizing that humankind is not separate from nature.... [My book's] pages come from forests, its words spring from the giving earth" (12). Susan Adams writes in a *Forbes* review that *The Secret Knowledge of Water* is "one of those books to read when you can't get to a wild place yourself" (377).

Although the use of literary tropes, and human discourse in general, co-opts nature's voice, human discourse can lead to "ecological consciousness" (Morton 54). Childs uses language and narrative, knowing their limitations, in order to begin the process of eco-literacy, encouraging readers to replace ignorant, apathetic, and destructive attitudes with a new appreciation of natural processes and a desire to understand one's role in the local environment (DiSilvestro).

Hearing nature's voice

Active participation in ecological discourse requires the adoption of what Warwick Fox calls "transpersonal ecology," or locating the self within a local biotic community. The human body reaffirms its connection to nature with every bite, blink, and breath; however, the conscious mind often gets distracted by the trappings of Western culture. Nature writers engage readers in ecological discourse in an attempt to transcend constructed reality, including their own words.

Many of these writers learn from the ecological discourse of Native societies, through which the natural world is presented as a living entity with a "voice" of its own. Laguna author Leslie Silko, for instance, writes that her people believe a canyon or mountain is only "less animate" than humans and other animals because it chooses to "travel occasionally" ("Landscape" 177). She states that "the People" express love and respect when they converse with the natural world. They do this by first locating themselves as part of the southwestern desert landscape, rejecting the belief that "the viewer is somehow *outside* or *separate from* the territory he or she surveys. Viewers are as much a part of the landscape as the boulders they stand on" (176; her emphasis). Deep Ecologists, like Craig Childs, take a similar approach in their own texts.

Childs's creative non-fiction rejects human superiority, modeling for his readers the process of being a responsible member of the landscape. For example, Childs begins his book *Soul of Nowhere* by looking down into an Arizona canyon and realizing: "What is down there is a voice, a lure, and landscape alive in its winding shapes" (2-3). Eager to converse with this voice and locate himself within a living ecosystem, Childs immediately leaves his position above the canyon, a change of altitude that symbolizes the change in attitude his books ask of his readers. Deborah Butterfield argues that "[w]e are not above nature; we are but one part of an interactive global system," for silencing "the voices of the earth" injures humanity as much as the land itself (106). Paul Lindholdt states that ecological discourse creates a "sensitivity to place," which helps one visit one's "backyard" and "respect it as part of [one's] own complex self" (20, 21). At the end of *Soul of Nowhere*, Childs celebrates his rejection of the notion that "the land was something other than me" (209). To express the depth of his ecological discourse, Childs describes his body merging with the landscape: "In the bottom of this great parabola, far into a

dune sea, I sink into the earth. One final privilege. I turn to sand" (226). Allowing for his poetic diction, I read this as a practical identification of the human within a natural system, not an idealistic environmentalist's sentimental dream.

Ecological discourse requires humans to be good communicators, which demands identification with a foreign perspective and the ability to listen carefully. Active listening between human speakers includes sensitivity to non-verbal cues like voice inflection, facial expressions, hand gestures. Similarly, deeper understanding of the natural world requires awareness of meaning on different levels, as well as the use of the body, intellect, and emotions through observation, analysis, and emersion. In *The Secret Knowledge of Water*, Childs not only visits flood sights and recognizes that floods are both destructive and regenerative, but he also seeks insider knowledge: "it was easy to discern who has lived in this part of the desert and who has not. Those who were born here know that deserts and floods are the same thing" (227). He models listening and learning, which are essential to ecological discourse.

Active listening requires silencing the tongue and opening the mind. Rachel Carson warns in *Silent Spring*⁶ that failure to do this causes ecosystems to be destroyed, especially when a greedy society chooses only to listen to the hum of machinery and the clinking of coins. At a pivotal moment in Leslie Silko's novel *Ceremony*, the protagonist Tayo adopts a respectful silence when he sees a mountain lion, quite a different reaction than the white fence riders who hunt the lion for a trophy. After calmly watching the animal, Tayo whispers a friendly greeting, making a linguistic and a spiritual connection. The mountain lion leads the protagonist to his herd of cattle, which had been stolen by white ranchers. His dialogue with nature silences the pain caused by human selfishness and violence: "Inside him the muddy water turmoil was settling to the bottom, and streaks of clarity were slowly emerging" (196). He discovered and utilized the peace and wisdom of the landscape, which he also finds within himself.

Childs posits in *The Secret Knowledge of Water* that ecological dialogue begins with "a respect for life and its uniqueness that goes *almost* unspoken, a reverence for the incomprehensible diversity of organisms that has woven itself into patterns across the earth" (156; my emphasis). By voicing this respect (it is only "almost" unspoken), humans may help each other avoid the ultimate silence: extinction. Childs writes to inspire his readers, aiming them toward the essential knowledge of existence.

The title of Childs's book also references one of the most intimate forms of communication: sharing secrets. While one definition of secret is the concealment of information, the secrets of the natural world can be alternatively defined: information that is beyond ordinary understanding, hidden but available to all. Childs and other nature writers use ecological discourse to share these secrets. Their texts, according to Carolyn Egri, suggest that any human who rejects greed, exploitation, and destruction and views nature as "organic, living and spiritual" (73) can gain access to the secrets of life, nature, sustainability.

Active listening also includes an understanding of what is communicated through nature's silences. Timothy Morton discusses this in his analysis of Wordsworth's Boy of Winander: "the apophasis of 'no sound' makes us *hear* the *absence* of sound" (53; his emphasis). Childs does the same in *The Secret Knowledge of Water*. For example, he tells a story of air force pilots who soar high above the "silent" Arizona desert, survey the landscape with a sense of godlike superiority, create their own "wall of noise," and carelessly shoot endangered pronghorn sheep (20). However, when the pilots spend a night alone in the desert as part of their rescue training, the natural nighttime quiet overwhelms them. Childs hypothesizes that they are kept awake by symbolic "banging doors" of undiscovered dead bodies; those who arrogantly believed human

survival did not depend on understanding the natural world and humanity's connection to it.

Childs himself engages with nature's silence in a cave at the Grand Canyon. Exploring the cave's inner chambers, Childs holds his breath as water slowly drips from the ceiling into a pool, falling at the rate of one drop per minute. More important than the sound of the water is the powerful silence between drops: "Each drip was so widely spaced that the silence between had weight ... The silence, I whispered. Remember this silence" (115; his emphasis). In addition to being inspired by the absence of sound, Childs also feels terror when he faces nature's silence, such as the moments just before a flood arrives with a "boom" (272). In this case, the silence precedes a deadly cacophony: "Water bellowed as it neared. Complicated discussions and howls of craving. ... The day I began my research into desert water, eight people died in a border flood, and a few days later a passenger train plunged into a flash food." Childs advocates active listening to the natural world, its whispers and howls, to learn both the immediate dangers and the broader environmental implications. The benefits: understanding, safety, sustainability.

Many nature writers, including Childs and Silko, defend expressing nature's voice through human language as a necessary method of passing on environmental memory. After engaging in ecological discourse, Childs often implores himself, and his readers, to "remember" what he experienced. He articulates what he has learned from the desert to prevent his newfound knowledge, and the landscape itself, from disappearing. He writes, "Stories gave the land definition at night, as the mountains vanished around me. Sometimes I would speak the stories out loud to break the loneliness" (10). Through words Childs sees the environment as both a physical system and an important metaphysical concept. In addition to mapping the source of waterfalls and the movement of floods, Childs recognizes the intellectual and emotional benefits to conversing with the wilderness, which Wallace Stegner, in his "Wilderness Letter," calls "the wilderness *idea*, which is a resource in itself" (111; his emphasis).

Childs's references to secrets, whispers, and memories show his "dialogue" with the natural world is personal and intimate. For example, during one trip into the Grand Canyon, he experiences a particularly violent storm that causes him to feel "blind and terrified" (188). In order to combat his fear of the storm, which "made the sound of a train derailing into the canyon, boulders uncoupling," Childs and his hiking companion talked continuously and tried, without success, to ignore the storm. After listening to boulders crash down all around them, the end of the storm brought silence, and out of the silence Childs heard the "clack" of a small rock, falling into the canyon: "it was the only sound. I listened to it all the way down, each scrape and clip standing out as if speaking to me directly" (194; my emphasis). This personal, intimate discourse with the natural world inspired Childs to learn about this landscape.

Comprehending nature's language

In *The Secret Knowledge of Water*, Childs shares what he has learned about nature, particularly water, during his experiences in the arid Arizona desert. The months he spent mapping hidden water sources taught him strategies for survival: travel from waterhole to waterhole, even if it's not a direct route to one's destination, and only take as much water as one requires.⁷ Childs documents nature's story not only to prevent its exploitation and destruction, but also to assist his own species: "Words are now missing from the story of ephemeral waters, severing critical pieces of information. Many people have died while crossing [the] desert ... They died because the story was forgotten" (10). Humans attempting to master and dominate nature have forgotten that both ecological sustainability and their own survival requires cooperation, an eco-dialogue.

However, even as he uses words to describe dynamic ecosystems, Childs acknowledges that language is an inadequate means of telling nature's story and his own experiences. For example, Childs half-jokes, half-laments that in a hopeless attempt to communicate the furious power of a Fear-of-God flood people "often lift both hands, trying to frame something that is not there. They search all the words that they know and still cannot find the right ones" (206). He even admits the inadequacy of his own words to relate what he experienced: "Eight million gallons a minute. Enough water to fill ... what? Does it matter? Twenty thousand refrigerators every four seconds? Fifty boxcars in a blink?" (260) Words can give someone the flavor of a natural event, but comprehension requires first-hand experience, followed by serious self-reflection.

After spending weeks and sometimes months alone in the wilderness, Childs no longer feels separated from the landscape by human language. When he's finally forced to speak to other humans, he notices how strange his unused voice sounds, that the words don't fit his experiences. Nonetheless, he speaks and writes, believing others can learn from his experiences. He translates nature's voice into familiar terms: water's erosive artistry is "calligraphy" and a cricket's precise, meaningful rhythms are "Morse code" (24, 57). These comparisons demonstrate how inexact and limiting human language is compared to the "unedited, perfect" (xvi) voice of nature. Yet, as Wendell Berry explains, these two voices can and must harmonize and engaging in "the inescapable dialogue between culture and nature" (143), recognizing that "the human and the natural are indivisible, and yet are different" (139). Leslie Silko praises Laguna oral storytelling as a means of reunifying human and non-human:

The narratives [told by tribal members] linked with prominent features of the landscape between Paguate and Laguna delineate the complexities of the relationship which human beings must maintain with the surrounding natural world if they hope to survive in this place. ... Yet we are all from the same source: the awareness never deteriorated into Cartesian duality, cutting off the human from the natural world" ("Landscape" 183).

The respectful collaboration of nature's voice and human language can reestablish a story of health and prosperity.

Nature writers are challenged by finding a way of converting the unconscious relationship humans already have with natural systems into a human language without appropriating or personifying nature's voice. Thoreau, for instance, realized the importance of maintaining the uniqueness of natural sounds: "At evening the distant lowing of some cow ... sounded sweet and melodious and at first I would mistake it for the voices of certain minstrels ... but soon I was not unpleasantly disappointed when it was prolonged into the cheap and natural music of the cow" (117). Realizing his initial error, Thoreau does not compound it by personifying the cow in his writing. Rather than stating that the cow sounded like the minstrels, he emphasizes the beauty, power, and wisdom of the cow's song by complementing the minstrels for sounding like the cow, adding, "they were at length one articulation of Nature."

Childs faces similar dilemmas. For instance, while in the wilderness, he describes hearing what he initially believes are human voices, only to discover the sound is water being funneled through a canyon. One could read this episode as a personification of nature that grants the landscape value only inasmuch as it embodies or expresses human qualities; however, I prefer to read it as an awareness and rejection of this tendency, in order to make a deeper connection to nature. Instead of pulling nature into the cultural, this incident pulls Childs into the natural; the sudden revelation that the sound isn't human yanks him out of his anthropocentrism, and the subsequent dialogue with the ecosystem is in an un-writable language that can be fully understood only by visiting the wilderness with an open ear, mind, and soul. Childs chooses to share this experience with his readers, but in his use of the word "voices" (xv), he differentiates it from human voices in an attempt to simultaneously avoid anthropomorphizing nature and providing it the same respect given a human speaker.

I believe Childs earnestly shows respect for nature's non-humanized voice, attempting to translate rather than personify or appropriate it. He seems to assert water's ability to speak for itself, forcing humans to listen: "As water began to move I again heard the voices ... Vowels lifted from the purl. Whole words. Unintelligible garble, then words again" (77). It is the juxtaposition of "unintelligible garble" and "[w]hole words" that reveals a deeper understanding of nature's sounds as a complex but unmediated, unconstructed mode of expression. The running, tumbling, surging language of the flood communicates a message of vitality, grace, regeneration, destruction, authority, and purpose: "Water furrows itself into shapes as it runs, immediately telling stories out loud, decoding messages from stillness into momentum ... Water taught me that it was an organism itself, alive, not merely a landmark" (77-78). By acknowledging water's dynamism and learning about the ecological diversity it creates, Childs urges humans toward comprehension of the natural world, engagement in ecological discourse.

Childs expresses concern that without such a discourse, humans will continue to place their own needs and desires above nature's, which destroys culture, as well as nature. Ignorance and selfishness have already done great harm; for example, in streams and rivers of the Southwest, "native desert fishes [have been] actively poisoned out of waterways to make way for non-native sport fish" (153-54). However, nature refuses to remain silent and acts to restore the balance: "Along with tearing out the forests, floods dispose of non-native fish. One thing natives have over these non-natives is that they can survive incredible hardship" (158). The native fish survive because of evolution, a discourse every species has with its environment. For example, a two-inch dace, native to desert streams and rivers, can survive a fifty-foot wall of water because it instinctively faces into the flood's current at spots that have the most drag and remains nearly motionless. Even the newborn dace knows what the non-native fish do not, that darting one way and another is what causes them to be swept into the current and killed. Another example is the razorback sucker, which has a muscle near its heart that allows it to survive the most powerful currents (159). Nevertheless, nature cannot correct for human error indefinitely, so Childs urges dialogue before it's too late.

Comprehension of nature's voice means more than listening; Childs suggests his readers must take the next step and analyze the messages nature's stories convey. For example, stocking rivers and lakes with non-native species of fish is a selfish, short-sighted approach. It ignores the importance of adapting to an environment without destroying it. Childs has learned to adapt through the ecological discourse he learned from Native peoples. He cites the Tohono O'odham tribe in the Southwest as a model of sustainable existence: "It is important to listen to people who have been in the desert for some time. [They know that to] ask for too much water is to invite disaster. Only in a place like this would you bow your head and humbly request just the water you need and no more" (34). In an age of water shortage, a better understanding of the

ecosystem is essential.8

Some Western scientists discount the voice of nature and the wisdom of indigenous knowledge, only accepting information acquired from their outsider, rationalistic perspective. Childs identifies drawbacks of this approach. For example, uninformed observations caused Western geologists to believe for generations that water was not a major cause of erosion in the desert. These geologists, blinded by arrogance, failed to recognize a truth that was continually being communicated by the natural world itself: "pay attention in that moment and you will feel the intelligence of water upon you. *It will tell stories of itself* against your body in boils and surges and vacancies" (170; my emphasis). Childs's use of the second person here encourages his readers to participate in this dialogue, to experience the water speaking to them.

Understanding the stories nature tells against the body means thinking outside of one's own selfish interests and accepting the wisdom of the natural world. Aldo Leopold begins his essay "Thinking Like a Mountain" with a wilderness voice, a wolf's "outburst of wild defiant sorrow, and of contempt for all the adversities of the world" (137). A cowman and a hunter misinterpret this sound because the "deeper meaning [is] known only to the mountain itself. Only the mountain has lived long enough to listen objectively to the howl of a wolf" (137). These humans are neither objective nor spiritually aware of their environment, and such an attitude is dangerous.

Leopold cannot translate the wolf's howl into human words, but he does understand it. It reminds him of when he helped kill a mother wolf for sport. Enjoying the "game" until it was too late, young Aldo noticed something in the wolf's eyes as she died: "something known only to her and to the mountain" (138). In her eyes was something humanity has been destroying within itself--a basic vitality, innocence, wisdom, joy, hope. Pained by that event, Leopold writes: "In wildness is the salvation of the world. Perhaps this is the hidden meaning in the howl of the wolf, long known among mountains, but seldom perceived among men" (141). Leopold warns that the future depends upon initiating a dialogue with nature.

Childs, remembering a story about Native American elders visiting living and speaking ancestral waters in the Grand Canyon, recounts his own connection to the natural voices of that landscape. He turns off his car radio, a continuous stream of human voices meant to drown out nature, and recollects when he studied "the gracious sounds of water tapping rhythms against the canyon floor" (87). This tapping is intellectually and spiritually significant to him. The drips have a mathematical and musical quality, "something beautiful, something magic ... I was mesmerized by the metronomic grace of this escaping water" (91). The natural tones and rhythms he heard while exploring deep into a cave enhanced Childs's connection to the natural world: "I heard the drop of water. It plucked the surface of the pool with a low, ripe tone. The first act of creation. I inhaled" (116). This realignment with the natural world, a first breath of life, is reminiscent of the emergence stories of many Native American tribes, as well as the mystery of the cave in Plato's *Republic*. Such a moment of physical, emotional, and philosophical truth requires, it seems, deep ecological discourse with the wilderness.

There is, however, an important distinction between the wilderness being a place to visit for emotional or spiritual regeneration, and a living presence one never leaves. Childs characterizes water in the wilderness as sentient, purposeful: "Water created life the way it creates creeks or springs. It did this, I think, so it could get into places it could not otherwise reach, so that I would act as a vehicle carrying it into the desert" (47). He appreciates the symbiotic relationship, humbly noting that all humans are "subjects of the planet's hydrologic process." Childs is curious about how these natural processes work, seeking to understand his own small role in them.

For many, ecological discourse begins with a nature writer's text, but comprehension requires a personal connection with the natural world. Childs writes that witnessing the power and eloquence of a desert flood first hand causes his preconceptions (and his notes) about nature to be "all washed blank" (272). True understanding for Childs begins when he puts his books away: "My papers and notes from ephemeral waters turned suddenly arcane and restrictive. The knowledge was no longer so simple to possess. It was not as innocent as *where* and *how much*. It was now asking questions of me" (75-76; his emphasis). Thoreau also preferred experiencing nature to reading about it: "while we are confined to books ... we are in danger of forgetting the language which all things and events speak without metaphor" (105). Ecodialogue occurs through experience, so humans must learn not only to speak but also to live nature's language.

The handwriting on the (canyon) wall

One reason nature writers are needed is that ecological discourse has become a foreign language to many Western readers. Without a struggle for survival in a wilderness, many take things like water, food, and shelter for granted. Daily survival no longer depends upon reading the landscape, but nature writers like Childs argue that long-term survival of the human species does. Childs's writing is a guide, teaching readers how to experience nature, even if they do not leave the city. In a 2008 radio interview he states:

These encounters that I've had [in the backcountry] are not just my encounters; it's not some isolated world that humans can't be part of without walking for a hundred days. That all you have to do is pause in the street and look for an animal and watch their movements, and become aware that there is this whole other series of lives going on beyond you. And you don't have to crawl on your hands and knees across the desert to experience this; that's where I come in, and I'm offering the vision into what's going on out there. But it's going on everywhere. (St. Clair)

His book *The Secret Knowledge of Water* often encourages humans to read the landscape, such as the flood-swollen river that "carved sentences and stories into the stone walls that it passed" (xvi). Childs gives the example of Father Eusebio Kino, a Jesuit missionary who explored the Arizona desert in 1702 and was "the first person to record on paper the location of water holes in the Sonoran Desert" (21). Father Kino literally read the mountain faces and canyon walls to know where to find the water that was trapped in the shaded mountain crags. Childs describes his own experiences in canyons and caves, his reading of every dimple in the rock that shows "water had been written all over that landscape ... The austere point that water had brought itself to in those water holes was now being traced in cursive, spelling out novels on down the canyon" (107). These "novels" narrate nature's impact, the expressions or flow of life, death, growth, struggle, beauty, and power.

Childs describes studying the sky before entering a canyon to know if a dangerous flood is on its way. He reads nature with his eyes, fingers, and nose, plus he uses his imagination to understand an ecosystem: "I would grow older with that language, tracing its meanings like working back through genealogy ... When there was no fluid, as was most often the case, with my hands on the water-carved walls I would read the language like some sort of seer" (xvi). Childs's ecological discourse expresses respect for place and awareness of his role in the environment. Nature speaks, and those that are patient, humble, and attentive will hear it and know what to do.

Childs refuses to carry gallons of water through the desert, choosing instead to carry only enough to get him to the next water hole. His respectful, willing immersion into the desert ecosystem follows the example of the Tohono O'odham and Father Kino, who were immersed in the desert ecosystem and learned quickly where to find water. They recognize that humanity is interconnected into the natural universe, "a universe that is alive, dynamic with energy" (Butterfield 107). Childs recognizes that his study of the environment, is more than an academic exercise; it is a two-way conversation that requires humans to interact with Nature on its terrain.

In the Introduction to *The Secret Knowledge of Water*, Childs relates the story of his mother being born prematurely and being kept alive with water from a high desert spring. He associates his mother with the non-human organisms that rely on those waters: the piñon and juniper trees near the spring, the salmon swimming up nearby creeks, and dragonflies that search for desert water hole. He considers his mother, himself, and all of humanity part of nature, all engaged in a lively and generative ecological discourse.

Notes

- 1. Industrialization, pesticides, overproduction, and nuclear waste are just a few recent human activities that have silenced and destroyed ecosystems. Chet Bowers advises humans, particularly teachers, to change the language used to discuss the natural world so that younger generations begins to "understand the connections between cultural practices and degraded environments, thus overcoming a widespread tendency to associate the word 'ecology' with natural systems rather than recognizing that the culturally influenced activities of humans are now integral, in largely destructive ways, to the workings of natural systems" (141).
- 2. In *Textual Politics: Discourse and Social Dynamics*, Jay Lemke points out that humans disrupt other forms of non-verbal discourse, such as the discourse of love, and that "[m]eanings always get made in contexts where social expectations and non-linguistic symbols play a role" (8).
- 3. The basis of ecological discourse is a deeper scientific awareness about the environment and humanity's place within it, which also has moral and social implications. Marianne Jørgensen and Louise Phillips take an environmentalist stance: "The ecological discourse is a discourse which stresses the importance of protecting the environment on the basis of holistic understanding of the world" (166). Harley Dean takes a socio-political stance: "The discourse of green communitarianism is pro-social-humanistic in the sense that it celebrates the place of the human species in Nature. It is defensive in the sense that its objective is to maintain ecologically sustainable human societies" (31).
- 4. Particularly Stegner's Angle of Repose, Momaday's The Way to Rainy Mountain, Silko's Ceremony, Williams Refuge: An Unnatural History of Family and Place. Other important texts by recent nature writers include Rachel Carson's Silent Spring, Barry Lopez's Arctic Dreams, Annie Dillard's Pilgrim at Tinker Creek, Linda Hogan's Dwellings: A Spiritual History of the Living World, Pat Mora's The Desert is My Mother, Arturo Longoria's Adios to the Brushlands.
- 5. Timothy Morton writes, "Ambience is a poetic enactment of a state of nondual awareness that collapses the subject-object division, upon which depends the aggressive territorialization that precipitates ecological destruction" (56). It eliminates dualism and inspires respect and love for the world. It causes humans to realize that the environment is "a world without center or edge that includes everything. Ambient poetics evokes this world by undermining that which Jacques Derrida calls the fundamental metaphysical distinction between inside and outside" (56).
- 6. Rachel Carson's influential work *Silent Spring* (1962) alerts readers to the ecological destruction caused by the widespread use of pesticides. Marc Bekoff and Jan Nystrom state that Carson's book "presents case after case of humans intruding on, destroying, and *silencing* ecosystems and intimately interconnected webs of nature" (861; my emphasis).
- 7. Childs's search for water holes in *The Secret Knowledge of Water* echoes the advice poet Gary Snyder provides about building relationships with the natural world based on cooperation and mutual benefit. Bob Blanchard reports in a discussion he had with Snyder: "We are in a vast universe and the planet itself is just a tiny water hole in the desert of endless space,' Snyder says. 'Like in the Australian

- aboriginal outback, nobody fights at a water hole. You may come from different tribes and groups that have a lot of hostility, but water holes are sacred, something you do not squabble over. Everybody is given an opportunity to come in from the desert and get the water. The planet should be seen in that light" (28).
- 8. Sean Kane argues that ancient oral cultures can help humans reconnect with the natural world. An ecological dialogue is necessary to help humans deal with the spiritual emptiness of the consumer lifestyle and the alienating effects of the modern, computerized/televised reality.
- 9. Frank Birkin argues that Aldo Leopold's ecological theories continue to be relevant because contemporary human "values and ways of thinking, influenced by a dualistic ontology, are not suitable for operating the techniques of environmental or sustainable development accounting" (231).
- 10. Recent interest in the topic of "acoustic ecology," as R. Murray Schafer termed it, has inspired the recording of natural sounds for scientific analysis and musical appreciation. Schafer argues that because the identity of a particular place is shaped by the sounds produced there, studies of this kind will help humans better understand our environment and themselves. These recordings are made because "the earth is not a silent planet. It is filled with an immense variety of geophanies (the sounds of inanimate nature such as waterfalls, thunderstorms, and wind) and biophanies (the sounds of animals)" (Hodges 1).

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