

# Teaching Natural History and the Spirit of Place

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This paper describes the design and conduct of an interdisciplinary doctoral seminar on the spirit of place offered in the Boundary Waters Canoe Area of Minnesota to adult learners of the Union Institute Graduate School. Natural and human history were addressed through readings and class discussions combined with observations and excursions by canoe, simulating the experiences of early explorer-naturalists. Exercises in narrative and descriptive writing as well as reading the landscape and splitting the spruce roots used for bark canoe repair provided visceral appreciation of the unseen dimensions of the ecosystem and the literary achievements of the poets and writers discussed. This type of course can be easily tailored to fit different venues or clientele. Such approaches are timely as we intensify the search for a sustainable world.

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We gather at sunset on a rocky promontory that juts into Low Lake, at the edge of the Boundary Waters Canoe Area Wilderness, near the town of Ely in Northern Minnesota. We're here for a six-day seminar, "Stalking the Spirit of Place," with doctoral students from the Union Institute, a non-traditional university for mid-career adult learners. Unlike traditional doctoral courses, Union's seminars are designed to model interdisciplinary inquiry, engage multiple intelligences, and demonstrate how to create a learning community where scholarly knowledge is integrated with individual life experience. These people have come from all over the country, and they are pursuing work in a variety of fields, most of which have nothing to do with natural history, literature, or environmental philosophy. John has led us through piney woods and down a cliff to the glaciated shore, where we sit in a twilight circle. After a moment of silence, Fred begins with a poem, David Wagoner's "Lost:"

*Stand Still. The trees ahead and bushes beside  
you  
Are not lost. Wherever you are is called Here  
(Wagoner 1999)*

Fred invites people to share observations about the poem and their experience. Some have literally gotten lost on the drive up; others feel out of place in this new, wild landscape; still others see it as a metaphor for times in their lives when they've lost

their way. We discuss how getting lost can lead to new awareness and insight. The poem draws us together with all these meanings and more. As the sunset fades from the sky, we feel surrounded and embraced by the wild northern forest. We anticipate seeing eagles, bear or moose, hearing the loons call at night, or even catching a glimpse of the aurora borealis. Sitting still, in silence together, we find in this spot the bedrock of our learning community.

We will be sharing about our aspirations and practice as writers and about our spiritual journeys. But we will also be learning to pay attention:

*... Wherever you are is called Here,  
And you must treat it as a powerful stranger,  
Must ask permission to know it and be known  
(Wagoner 1999).*

Our goal is to investigate the phenomenon of "place" in our lives by engaging with this particular place as fully as we can: through hiking, canoeing, observing, reflecting, and writing. We'll see what it means to come to know a new place and how that inspires us to write. But because knowing a place means appreciating it for its uniqueness, our seminar will be built on the bedrock of natural history: learning to pay attention to who lives here and why, expanding our understanding to include the patterns and processes that shape this particular landscape.

We are meeting at the Wilderness Field Station, operated by a consortium of Midwestern liberal arts colleges to provide summer programs in natural history and environmental studies. The area offers a wonderful diversity of habitat and terrain, a relatively simple biota, and evidence of both natural and human disruption from forest fires and clear-cutting. There's a rich cultural history as well: early occupation by Ojibway fisher-hunters who pushed the resident Sioux out onto the plains, followed by voyageurs hauling furs from Saskatchewan down through the border lakes and over the Grand Portage into the Great Lakes and on to Montreal. Then came timber cruisers hunting for giant white pine and miners prospecting the rich ores of the Iron Range. By the 1920's, with the mines and pineries nearly exhausted, tourists and fishermen discovered the maze of lakes, and preservationists began advocating for wilderness. The whole area, including Quetico Provincial Park across the border in Ontario, figured prominently in the land-use planning and legislation that led to a national system of protected wilderness. It was here, too, that forest scientists first mapped the natural cycle of fires and elucidated its signature in the adaptations of resident species, thus laying the groundwork for modern fire ecology management practices (Heinselman 1996).

In short, this is a perfect place to study place itself as an intersection of culture and nature. The wilderness location forces one into intimate contact with the land. The only way to get around is on foot or by canoe, just as the early naturalists did when they first encountered the flora, fauna, and people of North America. In those days, before it diffracted and professionalized into biology, geology, and a host of subdisciplines, "natural history" meant not only a holistic form of field-based science, but also a literary genre. Great naturalists like William Bartram, Charles Darwin, John Muir, and Rachel Carson were not only scrupulous observers but also accomplished writers. Today's nature writers continue that tradition by combining scientific accuracy with cultural insight and vivid, imaginative prose.

A spirit of amateurism also pervaded early natural history, when explorers were actively creating their own methods and subject matter. By replicating their modes of travel and observation in a wilderness setting, this seminar works as both a simulation and an immersion. Our learners represent a wide variety of fields, and none of them are professionally trained in either science or writing. But, as adults, they bring a range and depth of life experience that we hope to engage through our readings, discussions, and outdoor activities. They will learn to observe with

mindfulness and attentiveness as they travel by foot or canoe, learn the basic features of this ecosystem, and use writing to integrate their impressions, thereby gaining a deeper appreciation of the literary and intellectual achievements of the authors we discuss.

### The Spirit of Place

The next morning we give them their first assignment: to go out onto the land and find a "power spot" (Tallmadge 1999). The idea is for each person to pick a place that draws them, in which they will spend some time each day, observing, reflecting, and writing in their journals. Hopefully, they'll not only strengthen their writing practice, but gain valuable insight into the process of connecting with a place and becoming at home in it.

Jamie writes in her journal about this process:

"I started to build my place outside by wandering beyond the swimming rock. My most comfortable places were on land looking out on the water, not in a canoe paddling to move it forward. From the rocks on shore I could watch and listen. An important part of place building for me was doing this alone, exploring and testing my limits.

"Once I felt grounded in my places, I was more comfortable exploring wider areas in groups. Longer ventures on the water definitely challenged my physical ability, as well as developed my skills of working with people. Outdoors, the conversations moved from the theoretical of the table space. Here, they broke through boundaries as we spoke from the current encounter with the land, not just the imagined or remembered. It was story we were creating together."

For our first seminar discussion, we begin investigating the phenomenon of "place," through the disciplines of literature, natural history and spirituality. We begin with a free-wheeling romp through people's experiences of place. *How many of you have lived in one place all your life?* One or two hands go up. *How many have moved five or more times?* Half the group raises their hands. *Ten or more times?* A few hands go up. *More than twelve?* One hand. We ask them to reflect on how their experience of place is affected by the length of time lived in one locale. As the discussion unfolds, people begin to share about the advantages and drawbacks of each experience: the virtues of rootedness, but also the risks of stagnation; the values of diversity of landscapes, but the problem of shallow exposure. Gradually, group members begin to share more about

their life stories: one tells of the disorientation of serving in the military overseas; another speaks of the richness that came from growing up on a farm passed down through generations. Each person's experience of place is different, and the value of that difference is at the core of our investigation. Each person's unique relationship to place provides a core experience from which to draw as a writer. In Mary Austin's words, natural history writing is "The sum of what passed between me and the Land, and which has not, perhaps never could, come into being with anyone else" (qtd. in Trimble 1995).

Fred provides an overview of some of the philosophy of place. "An individual is not distinct from his place. He is that place" (Marcel, qtd. in Lane 1988). "Tell me the landscape in which you live, and I will tell you who you are" (Ortega y Gasset, qtd. in Lane 1988). But what, exactly is "place?" We look at a variety of definitions. Place includes the dimension of time as well as space: as Janet Varner Gunn (1982) calls it, "temporalized and oriented space." Place is relational: "a place is a piece of the whole environment that has been claimed by human feeling" (Gussow 1971). Unlike our sense of space, which is primarily visual, the sense of place derives from a more total experience: "through all the senses as well as with an active and reflective mind" (Tuan 1977). As we tease these notions around in the discussion, we propose a working definition for the seminar: "a place is a space with a story."

### The Genre of Natural History

This discussion leads directly into our next major topic, for many nature writers see themselves as storytellers. Terry Tempest Williams puts it this way: "I believe within this notion of people and place, story is the correspondence between the two. It informs our lives, it keeps things known. It's the umbilical cord between past, present and future. Story identifies the relationships, and that's what is essential in the heart of good storytelling – and also a good nature walk – to be able to see those inherent relationships" (Lueders 1989). In Barry Lopez' words, "the storyteller's responsibility is not to be wise, a storyteller is the person who creates an atmosphere in which wisdom can reveal itself" (qtd. in Trimble 1995).

How then does natural history knowledge provide the bedrock for effective nature writing? One of our colleagues, Ed Grumbine, often introduces his teaching sessions with the notion that the "sense of place is ecosystem specific." So in order to develop a sense of place, one needs to pay attention to the

specific details of the place you're in. Gary Snyder (1990) develops this notion more fully. "Bioregional awareness teaches us in *specific* ways. It is not enough just to 'love nature.' Or want to 'be in harmony with Gaia.' Our relation to the natural world takes place in a *place*, and it must be grounded in information and experience." He gives the example of his own sense of place in the Pacific Northwest, shaped by the presence of the Douglas Fir. "The presence of this tree signifies a rainfall and a temperature range and will indicate what your agriculture might be, how steep the pitch of your roof, what raincoats you'd need."

Fred shares his own experience of transformation from the naïveté of the "nature lover," of which Snyder writes, into a more knowing relationship with place. He hopes to validate the experience of those without prior natural history knowledge and show the process by which they too can acquire such knowledge. He tells the story of going out with noted tracker Paul Rezendes, stalking signs through the woods and coming upon a deer bed where he could see the shapes of the deer's body from the matted grasses on the ground. Following sign to a coyote den, he shares his fascination with the scat that marked the place at the mouth of the cave. As he pulls pieces of scat from his pocket, gasps and expressions of astonishment erupt from this group of non-naturalists, and everyone draws in close for a look. Scat always seems to elicit interest and stories, and so the discussion takes off. We have made our point: concrete details of natural history provide the stuff of good stories.

Our assigned readings illustrate how nature writing combines all of these elements: natural history description, sense of place, and an engaging sense of story. We have chosen texts that exemplify a variety of styles, personalities, landscapes, and cultural or gender identities. Terry Tempest Williams' *Refuge* (1991) tells of how a deep engagement with a place, the Bear River Migratory Wildlife Refuge on Great Salt Lake, becomes a place of healing as she copes with her mother's losing battle with cancer. Details of the lives of the birds she encounters become metaphors in the story of her own inner recovery. Linda Hogan's *Solar Storms* (1997) illustrates how a novel can create a sense of place; it offers an evocative portrait of the lakes and rivers of the North Woods and the lives of its Native American inhabitants. Henry David Thoreau's *The Maine Woods* (1864) and John McPhee's *The Survival of the Bark Canoe* (1989) provide insights about how one can engage with the land through canoeing. Aldo Leopold's *A Sand County Almanac* (1966) combines

the naturalist's observant eye with a principled philosophical mind to articulate a "land ethic" grounded in local ecology.

### **Nature Walk**

That afternoon, we take the group on a short nature walk around camp. Since for many this is the first time they've encountered this place, as well as the practice of natural history observation, we want to introduce them to the key features of the landscape without overwhelming them with facts. So even as we introduce them to the names of the plants on the forest floor – big leaf aster, clintonia, pearly everlasting and sarsaparilla – and to the forms of the lichens that grow on the rocks – crustose, foliose and fruticose, we also tell stories. We help them to sort out the details by seeing the larger patterns and processes that lie behind the details and give them coherence: how Pre-Cambrian granite was ground down by glaciation to create the thin, gravelly soil that supports this particular community of plants, how the disturbance of settlers portaging from lake to lake created a unique "portage community" where native raspberries mingle with plantains that were brought in by the settlers in their hay (which prompted the Indians to call them "white men's footsteps"), and especially, how the forest fires that recur every 60-100 years have shaped the growth patterns and adaptations of resident species. White and red pines, for instance, grow tall to escape fast-moving ground fires, white cedars always grow near the shore, and jack pines have developed serotinous cones that open only when heated, releasing their winged seeds to fall on the burnt-over mineral soil they need in order to germinate (Walshe 1980, Heinselman 1996). We also share stories about the human inhabitants and their life on the land, such as the Ojibway, who boiled maple sap by putting hot rocks into birch bark tubs or made natural diapers from strips of birch bark stuffed with highly absorbent (and disposable!) sphagnum moss. So as our students' understanding deepens with patterns and stories, they learn to "see the unseen," and so to sense the presence of former inhabitants and underlying ecological processes.

### **The Practice of Writing**

Each day, we provide opportunities for our students to write and share their writing in small groups. Our goals are both to instruct and inspire so that the students will come to the end of the seminar with tools for the process of natural history writing and experiences of this place from which they can write. Our writing instruction is concentrated in several

lecture/discussions led by John. First, he explores some of the reasons why writing is so difficult, and offers strategies for overcoming writer's block. Primary among these is "free-writing," in which one simply puts pen to paper and keeps it moving. This helps to circumvent the inner critic that often impedes the natural flow of words and even keeps us from getting started. Free-writing puts the writer in touch with the spontaneous flow of his or her own creative voice and gives access to valuable material beyond the range of our everyday, rational consciousness (Tallmadge 1999). Several times in the course of the seminar, we provide opportunities for the students to experiment with free-writing and share their words with others.

After the discussion of free-writing we are ready for the primary discipline of nature writing: storytelling. The writer's task is to make a place real, by bringing to life the story of what has happened there. Seen in this context, nature writing is less an accounting of facts than a story of relationships: between elements of the landscape, between the writer and the landscape, and within the inner landscape of the writer. Meaning inheres neither in the place nor the person alone, but in the relationship that develops between them. But to capture this is easier said than done. Nature writing is a complex process that involves taking field notes, journaling, and free-writing, even before the process of composing an essay. John helps to demystify this process by showing how these stories about a place can evolve. Unlike the reader, who follows the plot to its climax, the writer must work backwards, beginning with a climactic moment of insight, transformation, or revelation. Once such a salient moment is identified, the writer ruminates and writes about it, seeking the pattern of events that leads up to it – the plot. Free-writing about this climactic moment begins to reveal multiple levels of connection to the landscape, not only through its natural and human history but also through the personal stories and associations of the writer. This is a tactile, groping process, in which events gradually coalesce into patterns. Details of the landscape that have been recorded in field notes begin to take on significance as part of the story. And the experiences of the writer's life begin to align themselves in the sequence of the plot. John compares our lives to a telephone cable, in which a whole bundle of conversations are going on simultaneously. We carry within us multitudes of stories that run parallel through our lives. The challenge is to tease out of this bundle of stories the particular events that contribute to this story. The climactic moment casts an illumination on other events of our lives, causing them to glow and become

energized, so that they contribute to the overall richness of the story (Tallmadge 1999).

A natural history essay integrates the traditional elements of storytelling: plot, setting, and character. As in a fictional story, the plot is the pattern of events that engages the reader and carries him or her on to a satisfying conclusion. In the natural history essay, the plot depicts the relationship between the narrator and the place as it develops. The reader must be able to imagine the place and care about the person, so evocative description and convincing characterization are the two keys to good nature writing. The details of natural history provide the setting, and the more vivid these details, the more engaging the story. The narrator generally takes on the role of protagonist, so as writers we seek ways to portray ourselves memorably, through anecdotes, memories, and details of personal characteristics.

A few maxims help crystallize these insights for the students. *Show, don't tell*: Bring the place alive through concrete descriptions. *No thoughts but in things*: Let your ideas and feelings come across through concrete descriptions. *Avoid clichés*: The best antidote to these overused metaphors is accuracy of description. Pay attention to the details of your experience, and you'll find something original to say. Through this entire process, we hope to inspire our students to go out into the landscape, to pay attention to what they see and hear and smell and touch. By increasing their skills as naturalist observers, they lay the foundation for being good natural history writers.

Reid's journal entry illustrates this kind of attention to concrete detail:

"It was the colors – not just the pink, gray, green and brown, but the yellow, white and bright. And it was also not just these, but the blazing orange hunting jacket of the woodland mushroom. It was the scarlet red of the rose hips and the worn down reddish orange of the wilting and semi-expired strawberry leaf. The gray, pink, white, black, sparkling quartz granite, softened by ages of moving water and scary ice, moving ever so slowly and ever so forcefully. It was the age old, ancient, and ageless echo of the loon tied together with the peaceful Bluegill dinner floating lazily in the shallows. All but invisible, they tantalized from below."

## Reading the Land

By the third day we are deeply immersed in both the literature and the landscape. Everyone has found a power spot, begun their journal, and had time to practice launching, paddling, and steering the canoes. We are now ready for our first excursion away from camp. Aldo Leopold used to teach his students how to read the history of the landscape by correlating small clues or traces with facts learned in class (Tallmadge 1999). We want to adapt his methods for this novice group, so that they will gain confidence in their powers of observation and learn how to "see the unseen." At the far end of Low Lake lies an unusual formation, a long sandy spit that sticks out into the lake. Sand and beaches are rare in this country; most lakes have rocky or swampy shores of the kind we notice during our mile-long paddle. As we land, the students remark on the high banks and notice the broken cases of turtle eggs that had been laid in the sand. They are already beginning to notice things.

John begins with a short orientation, explaining that the goal is to account for the odd geological formation using only evidence from yesterday's nature walk and today's observations, starting from the moment we left camp. He offers a three-step guide to observation, which can also be used to structure a piece of nature writing. First comes *description*, where you take note of what is there, without judgment or elaboration. Next comes *interpretation*, where you correlate the things you observe with one another in space and time. Finally comes *speculation*, where you ask what we can learn from these things and relationships. Description is about things, interpretation is about relations, and speculation is about meaning, especially human meaning (Tallmadge 1999).

We ask the students to walk up the portage path toward the opening in the hillside that leads to the next lake, paying close attention to whatever they see. Almost at once they notice that the spit slopes gently upward. The ground is not level, but scalloped with broad depressions in which leaves and pine needles have gathered; aspen and birch saplings grow here and there, much smaller than the trees in the dense woods on either side. As we proceed up the portage, the ground grows rougher, the stones underfoot increasing in size from coarse sand to gravel to mixed cobble with small boulders the size of cantaloupes. By the time we reach the cut in the hill, we can see Bass Lake opening beyond the outlet stream with its small rapid; it can't be more than a few feet above Low Lake. The portage ends, but a trail branches off, climbing the hillside. This slope is sandy, steep, and mostly bare with rocks and gravel

of every size, though all have rounded shapes. At the top, we reach a level surface as the path veers into the woods, which consist mainly of mature aspen and birch with a well-developed understory of bracken fern, bigleaf aster, and wild sarsaparilla. On our left the forested slope plunges steeply toward the lake some thirty feet below; to our right the land rises gently toward the top of the ridge. We walk along on the nearly level path as the students try to fit all these clues together.

We have been teasing them with questions. Why do you suppose the sand gets coarser as we go up the spit? Why are the trees so much younger and sparser? What might have caused the scalloping in the ground? Where have you seen such patterns before? Why are the slopes bare in the cut in the hill; why does the gravel here come in so many different sizes all mixed together? Why are the pebbles rounded instead of angular? What could account for the steep slope on one side of the trail and the gentle slope on the other as we reach the top?

Bit by bit the picture comes into focus. The gradation in sand and gravel sizes suggests some kind of sorting process, probably by running water. One student remembers seeing scalloped patterns left by wave action in shallow beach water; these big scallops suggest big waves. Another student points out that the rock types in the spit resemble those in the hillside, suggesting the spit must have been formed from material carried down from the hillside. Water might have done it, but where could so much water have come from? The next lake is only a few feet higher, and the connecting stream is just a small creek. The answer finally emerges when one student spots an incongruous white cedar growing deep in the woods, a full thirty feet above the lake, and remembers that cedars are supposed to grow right next to the water. Sure enough, nearby we can make out faint traces of an earlier shore line: ice-sorted boulders with tangles of driftwood still bearing the marks of having been cut by beavers. This is a big lake, and if it was thirty feet higher in the past, there must have been one mighty flood that cut through the hillside and deposited that spit of sand. But what could have caused such a catastrophe?

Now that they have figured it out, John explains. Early in the last century loggers cleared all the pines from around these shores, floating the logs down the lakes and loading them on to rail cars for transport to sawmills in the town of Winton, near Ely. To get them over the hill at the end of this lake, they built a wooden flume that carried the logs down on a stream of water. Apparently, it was built at ground level, and

the loggers abandoned it when they finished cutting. When the flume eventually rotted and began to leak, water started flowing over the ground and quickly eroded the sandy soil. In a matter of hours, the lake was breached and a tremendous flood poured through the gap, carrying tons of sand and gravel into Low Lake and scouring the Range River, its outlet channel, for miles downstream. The students are amazed at this story, and no less amazed at their own detective work. They can now appreciate Leopold's oft-cited comparison of the land and its creatures to history books in a library.

### **Splitting the Roots, Releasing the Seeds**

On the last full day of the seminar, we try to pull it all together by taking an extended day trip, paddling and portaging through a chain of lakes to as wild and distant a place as we can find. This slow, steady travel fosters attentiveness, engages every one of the senses, and affords ample time for description, interpretation, and speculation that will percolate into the students' journals. The trip easily affords what Leopold called "an abundance of distractions": a loon diving for fish to feed her chicks, a black bear browsing berries along a cliff, an eagle soaring to its nest in a tall white pine. It also allows us to observe patterns of color and texture in the forest that reveal its history of logging and fires. And it gives the students a chance to practice their newfound skills, especially portaging, which for some of these middle-aged folks, has become a rite of passage.

At the point farthest out we stop for lunch and discuss canoeing as a mode of travel, focusing on our readings from Thoreau and McPhee. We also conduct an experiential activity that was invented by one of our students and has become a staple for the seminar. Thoreau made three trips to the Maine Woods, beginning in the summer of 1846, while he was living at Walden, and on two of these trips he used birch bark canoes. McPhee, on assignment for the *New Yorker*, retraced Thoreau's third journey, also using a bark canoe. Both parties ran into trouble when their canoes struck underwater obstacles, split open, and had to be repaired on the spot. Thoreau describes how his Indian guide, Joe Polis, dug up the shallow roots of black spruce and split them into long flexible thongs that he then used to stitch up the breaks before sealing them with pitch; McPhee tells how his own guide, the master canoe builder Henri Vaillancourt, used an identical process more than a century later. It looks simple to split the roots, but both writers fail repeatedly, and comically, when they try. Our student had felt the need for some hands-on activity to balance all the talking and writing, so he

brought in a bunch of the long, gangly roots and asked us to try to split them using Thoreau's and McPhee's instructions. He read the texts aloud as we wrestled with our roots, and, when it was all over, he asked which writer we thought had been most helpful. Then, as now, the students achieved varying degrees of success, and a lively discussion ensued. Everyone carried their roots back to camp, braided or woven into bracelets, necklaces, or even small baskets. Now, as then, our hands are stained with soil and fragrant with spruce sap, but no one washes them until it is time for dinner.

That evening we hold one final experiential activity that draws together all the strands of the seminar through a consideration of the fire cycle in these northern forests. Despite the abundance of surface water, the land dries out by late summer, and fires are ignited by "dry lightning" from thunderstorms that move through without dropping their rain. They also result from human carelessness, such as a tossed cigarette or unattended campfire igniting piles of dry slash left in a clear cut. During the day we have seen evidence of fires and clear cuts: charcoal scars at the base of tall pines, or the varying mosaic of forest where light green stands of aspen alternate with dark, shaggy patches of jack pine. John reviews the history of fire research in this area, highlighting the work of Miron Heinselman (1996) and other scientists connected with the Wilderness Field Station, whose discoveries problematized the notion of a "climax community" and the idea of Edenic wilderness. He explains how the jack pine, with its serotinous cones, has discovered how to turn the energy of its own destruction into a source of new life, an apt lesson for any of us when faced with a catastrophic loss (Tallmadge 1997).

John passes around several cones gathered during the day; they look like oversized, knobby cashews, their scales tightly sealed. He sticks one on the end of his knife and holds it over the gas flame of the kitchen stove. It blackens and begins to smoke; then, suddenly, it bends and starts to open. John pulls it out of the fire and taps it on the table. Tiny black seeds fall out, each the size of a pinhead and bearing a translucent wing. He picks up a seed and blows it into the air. The students watch in wonder as it drifts away, twirling as it falls. They realize that each thick stand of jack pines marks a place that was once burnt to the ground, a living signature of the invisible fire cycles that give this place so much of its character.

## Conclusion

As a complex reality that combines nature and culture, the experience of place invites both interdisciplinary inquiry and a creative, multisensorial pedagogy. Our seminar illustrates the benefits of using natural history in combination with literary analysis, group discussion, creative writing, and directed experience in a wilderness setting to achieve the deepest possible engagement. In this situation, every moment became a teachable moment, because the students were immersed in their subject matter around the clock. Nothing could happen that was not relevant. Our methods simulated the situations of classic naturalists like Darwin, Thoreau, and Muir, who were motivated by a spirit of amateurism, discovery, and engagement with the great cultural issues of the day. Like them, the students practiced attentive observation, traveled by primitive means that put them in close contact with the land, and used writing to synthesize, interpret, and communicate their discoveries. They came to experience natural and human history as vital, intertwined aspects of the landscape's character. We believe that the material and techniques used in this seminar are readily transferable to other locations and adaptable for either traditional college age students or adult learners. As the search for a sustainable society becomes ever more urgent, the importance of natural history as a personal and professional practice will continue to grow. As inheritors of that tradition, today's nature writers and field biologists will continue to show us the way.

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