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Unearthing Connections in a Storied Landscape: The Flathead River Honoring and Place-Based Education in the Flathead Valley

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UNEARTHING CONNECTION IN A STORIED LANDSCAPE:

The Flathead River Honoring and Place-based Education in the Flathead Valley

By

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ABSTRACT

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Unearthing Connection in a Storied Landscape: The Flathead River Honoring and Place-Based Education in the Flathead Valley

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The modern world is facing an epidemic of placelessness that threatens to erase specific place knowledge and experiences from human lives. As such, placelessness impedes the development of human place connections that provide a foundation for stewardship values and environmentally responsible behavior. Experiential, place-based approaches to education offer an antidote to this problem, a philosophy that informs the Confederated Salish and Kootenai Tribes' multiple educational initiatives, including the annual River Honoring event and its accompanying Lower Flathead River curriculum. This study explores in-depth interviews with ten fourth and fifth grade public school teachers who had participated in the River Honoring event with their students. Their responses highlight differences in how teachers perceive and navigate certain multicultural approaches to place-based education, and the aspects of each approach—including interactive learning and storytelling—that seem to be particularly engaging for their students.

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INTRODUCTION

Anthropologist Carling Malouf once wrote that "the density of occupation sites around Flathead Lake, and along the Flathead River between Polson and Dixon indicates that this was, perhaps, the most important center of ancient life west of the Continental Divide" (Thorson, Britton, and Colby 2006:215). At the same time, a multitude of enduring cultural symbols serve to reaffirm the significance of the Flathead Watershed's features to indigenous identities of Western Montana: the Salish name of Flathead Lake's historical Pend d'Oreille band translates to "People of the Broad Water"; the sign language used to indicate membership in this tribe resembles the stroke of a canoe paddle; and it is evident in the stories that have persisted through generations of Salish and Kootenai peoples that the Flathead waterways were at the epicenter of Native life for several millennia.

Beginning in the nineteenth century, Western colonization catalyzed a rapid series of events that resulted in sudden and dramatic changes to the landscapes of the Flathead Valley. Following the signing of the Hellgate Treaty in 1855, the completion of the Northern Pacific Railroad intensified industrial development across Western Montana. Once the Flathead Allotment Act passed through Congress in 1904, the Flathead Reservation became open for non-Indian homesteading, which prefaced a wave of non-Indian settlement on the reservation and facilitated a massive shift in the demographic and politics of the area, as well as human impacts on the landscape. In 1938, the Montana Power Company completed construction of Kerr Dam on the Lower Flathead River, fundamentally altering the behavior of downriver aquatic and riparian ecosystems. Over the years, the cumulative effects of the landscape's transformation have materialized in riparian areas degraded by overuse and mismanaged livestock grazing, river

water often clouded by agricultural runoff, and ecosystems destabilized by invasive species and sudden compositional changes (Flathead Lakers n.d.).

Throughout the twentieth century, local indigenous communities fiercely opposed, and successfully thwarted, multiple efforts to build additional dams on the Lower Flathead River. In 1986, the Confederated Salish and Kootenai Tribes (CSKT) hosted the first "River Honoring" on the banks of the Flathead River where it bends away from its tributary, Crow Creek, west of Charlo, Montana. Salish Kootenai College and supporting tribal members initially organized the event in order to remind the community not only of the significance of the river to the Tribes' collective history, but also to the continued integrity of the valley and its inhabitants. The recent history of degradation along the river that coincided with Western expansion across the valley prompted the conception of the River Honoring as an experience for remembering and encouraging a sense of environmental stewardship among community members. Tribal authorities hope that the event will help to reinvigorate the cultural-ecological integrity of the Flathead watershed.

The River Honoring began as a time for the community to gather and celebrate the Flathead River, honoring its history and meaning as a sacred force on the landscape. Over recent years, with the guidance of Germaine White, the Education Director of the CSKT Natural Resource Department's Division of Fish, Wildlife, Recreation, and Conservation, the event has evolved into a three-day-long outdoor educational experience that aims to inform and inspire younger generations of Flathead Valley residents. Though still open to the public, the River Honoring is now structured to accommodate visits by over a thousand fourth and fifth graders from regional public elementary and middle schools. The Natural Resource Department invites classrooms of both Native and non-Native students to attend for a day in order to enjoy the

anticipation of summer on the banks of the Flathead River, and to experience a variety of educational stations run by tribal and community specialists involved in work that uses, conserves, and celebrates the river and surrounding landscapes: CSKT fisheries technicians allow students to examine live fish specimens; Tim Ryan shares hands-on demonstrations of ancient technology using riparian resources; students play double ball and shinny; experts from the National Bison Range offer a range of animal bones for students to handle and examine; tribal elders tell stories of the area and share values of respect and reciprocity with their surroundings. Overall, the event offers twenty different interactive stations, through which classes move fluidly throughout the day.

To supplement the River Honoring event, Germaine White spearheaded the development of a comprehensive place-based curriculum as a project of the Division of Fish, Wildlife, Recreation, and Conservation, which they completed and released in 2013. The curriculum is comprised of an interactive DVD that includes audio, visual, and video components that highlight geography, ecology and cultural history of the Flathead Valley, along with stories that relay facets of regional indigenous knowledge and values. The curriculum also includes lesson plans for teachers and resources for integrating the River Honoring content into standard 4th and 5th grade classrooms. Months before the event, these curriculum packets are distributed to teachers who have committed to attending the River Honoring with their students.

Ms. White intends for the Lower Flathead River curriculum to supplement the educational values of the River Honoring event by extending cultural and ecological content into classrooms prior to visiting the banks of the Flathead. She means for the curriculum to provide a place-based option for teachers as they deliver science content that adheres to Common Core standards. A primary goal of the Lower Flathead River interactive DVD is to infuse place-based

science with cultural history and values that will ultimately instill a sense of stewardship in students, in which both science and tribal wisdom inform a balanced environmental ethic. By using multimedia approaches to storytelling and environmental exploration, the DVD attempts to maintain student interest with historical and environmental knowledge that is relevant to the watershed they call home. Ideally, this will be an easy, appealing option for teachers that is also useful and engaging for students. Both the River Honoring and its accompanying educational materials share the broader goals of fostering meaningful connections to the area and increasing stewardship behavior among all residents of the Flathead Valley watershed.

Since 1972, Article X, Section 1(2) of the Montana Constitution has read: "The state recognizes the distinct and unique cultural heritage of American Indians and is committed in its educational goals to the preservation of their cultural integrity." This constitutional commitment has evolved into what OPI commonly refers to as "Indian Education for All," a set of resources available to teachers that encourages instruction of Montana Indian cultural content in a way that supports state standards for public education. However, since its inception several decades ago, Indian Education for All has remained an abstract and unregulated idea, more of a suggestion than a set of clear guidelines for implementation. Because of this, teachers and administrators interpret "Indian Education" in various ways, and there is currently no mechanism in place for ensuring equitable education opportunities for public school students; Indian Education for All appears in some classrooms as comprehensive educational units, and in others as isolated field trips or visits from tribal representatives.

As the River Honoring and its accompanying classroom materials are resources which the tribes themselves have made available as educational tools, teachers will often consider their use of these resources as fulfilling a portion of the Indian Education for All state mandate. That

being said, nowhere in these materials is there any mention of Indian Education for All, nor would one get the impression that the tribes designed these materials to be tailored to those requirements. Rather, as Germaine White has often said, Western Montana has been home to the tribes for millennia, and the Flathead Valley will continue to be their home for millennia to come. CSKT's Natural Resources Department does not produce educational materials for implementation as Indian Education for All so much as they produce educational materials with the intention of inspiring stewardship behavior and a sustainable approach to natural resource management in all people, so that the integrity of their ancestral home may endure with them into the future.

Accordingly, CSKT's Natural Resources Department intended the River Honoring and the Lower Flathead River interactive DVD to operate within Montana's public education system, making the materials accessible to a widespread audience of students. As such, these materials feature a design meant to support the standards that all public school teachers are tasked with meeting in their classrooms. In 2011, Montana's Office of Public Instruction (OPI) adopted Common Core Standards through a vote of the Montana Board of Public Education. Though the Common Core Standards did not provide teachers with specific curricula, they did standardize "a set of clear, shared goals and expectations for what knowledge and skills students need to master at each grade level" ("Montana Common Core Standards" n.d.). The Standards established measures for student competency in specific English and mathematics content for each grade level, though for fourth and fifth grade language arts, the standards focus less on content and more on broad expectations for achievements in reading and writing skills. Accordingly, specific social studies curricula—including Native history and multicultural education—are often established district by district, according to the priorities of individual administrations.

Over the years, several curricula have emerged out of the CSKT's Division of Fish, Wildlife, Recreation, and Conservation in order to address this issue. "Fire on the Land" aims to expose students to a localized perspective of fire ecology informed by an extensive history of indigenous interactions with Western Montana landscapes. "Explore the River" offers stories of the cultural history and ecology of the Jocko River, emphasizing the cultural significance of the bull trout and its iconic status as a symbol of the river's restoration. The "Lower Flathead River Interactive Map and Resource Guide" is the newest addition to CSKT's robust collection of educational resources, highlighting the Tribes' commitment to progressive, comprehensive approaches to enhancing their community's place-based literacy. The interdisciplinary designs of these materials are meant to allow teachers to integrate them into most academic subjects, tying together otherwise disparate disciplines such as science and language arts into common narratives that also support Common Core Standards.

So far, there has been tremendous anecdotal praise for both the River Honoring event and its supplemental educational materials. According to Ms. White, the number of teachers and schools requesting to participate in the River Honoring increases every year. However, no formal research has been done to establish how the content is being integrated into classrooms, or how it might be effective as an experiential, place-based program. There is no systematic oversight of how teachers are implementing components of the curriculum, and the extent to which it is being used remains relatively unknown.

I have been lucky enough in my time as a graduate student to have had the opportunity to speak with and learn from Ms. White, an extraordinary woman who has been a driving force behind the development of these celebrated educational initiatives. Our discussions eventually led us to cultivate the research questions that have guided this thesis project: What are teachers'

perceptions of the River Honoring and the Lower Flathead River curriculum; to what extent are they using all of the resources available to them; and are these resources effective at connecting students to the place they call home, thereby inspiring a sense of stewardship that might guide knowledgeable and sustainable interactions with the landscape?

It is critical to recognize that this research project was a collaboration with the Confederated Salish and Kootenai Tribes; specifically, the Natural Resources Department's Division of Fish, Wildlife, Recreation, and Conservation's education program, for whom Germaine White has acted as a spokesperson. As such, the course of my research was inherently guided by the insights she hoped to gain from my interactions with participating teachers. This was largely an *exploratory* study that aimed to "identify or discover important categories of meaning" (Marshall and Rossman 1999:33). To avoid drawing generalized conclusions from a qualitative study of a small number of people in a very unique situation, I instead hoped to document a "lay of the land": how are involved teachers approaching these unique instructional opportunities, and what might their perspectives imply about how they are affecting students? My ultimate goal in examining these questions was to provide CSKT's Natural Resources Department with data that could potentially contribute to the further development of their already vigorous educational initiatives, and that could be helpful as they continue to pursue cultural and ecological literacy in their community.

> It is a crime of deception—convincing people that their own visceral experience of the world hardly matters, and that pre-digested images hold more truth than the simplest time-tried oral tradition. We need to turn to learning about the land by being *on* the land, or better by being *in* the thick of it. That is the best way we can stay in touch with the fates of its creatures, its indigenous cultures, its earthbound wisdom. That is the best way we can be in touch with ourselves.
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> —Gary Nabhan, *The Geography of Childhood*

LITERATURE REVIEW

Chief among the many things I've learned as a graduate student of environmental studies is that when people ask me what I'm studying, "environmental studies" is often an insufficient response. This is understandable. It is broad in scope and practice, combining perspectives from science, art, and humanities in order to develop holistic perspectives of environmental issues. It's what makes the discipline—if it can be called that—valuable, necessary, and incredibly difficult to explain. At some point, I refined my response of "environmental studies" into "environmental education," believing this to be a sufficiently detailed answer for those seeking a specific explanation of my studies. One day, after a new acquaintance asked me what I was studying and I replied with the routine "environmental education," I was met with a blank stare and two earnest questions, "What's that? Like, teaching kids about pollution?"

I don't remember exactly how I reacted, but I do recall offering a rambling, convoluted, and unnecessarily pedantic response that made as little sense to me as it likely did to my conversation partner. As it turns out, environmental education demands some untangling.

Environmental Education and Sense of Place

"Environmental education" is less a prescriptive mode of pedagogy than it is a broad, often ambiguous classification of educational approaches that seek to enhance environmentally

responsible attitudes and behaviors. The field of environmental education (EE) has emerged in response to a perceived "need for a well-informed, engaged citizenry to make public and private choices that positively impact the environment" (Carleton-Hug and Hug 2010:163). In essence, it offers a reaction to the growing number of a) people observed to be largely disconnected from the places they inhabit, and b) ecosystems that are at risk of becoming lost, degraded, or uninhabitable.

According to the North American Association of Environmental Education (NAAEE), EE has become the purview of multiple disciplines, from science to social studies to language arts—essentially, any subject that has the capacity for addressing human-nature relationships from some perspective, thereby enhancing environmental literacy. The purpose of EE is broad: "to teach children and adults how to learn about and investigate their environment, and to make intelligent, informed decisions about how they can take care of it" (NAAEE). As such, the field includes a spectrum of methods aimed at achieving a multifaceted, holistic goal, some arguably more effective than others.

Some EE scholars have criticized certain approaches to developing environmental literacy in younger students for being unintentionally counterproductive. That is, instead of fostering environmental empathy and increasing environmentally responsible behavior, they run the risk of distancing children from nature and increasing the development of what David Sobel terms "ecophobia" (1997). Chief among these are educators' tendencies to focus EE content on a) "pristine" nature contained within parks and reserves far from home (Fisman 2005) and b) global environmental issues that are immense in scope and magnitude (Sobel 1997).

For many children, outdoor environmental education occurs in national parks, nature preserves, and other iconic natural areas that are distinctly separate from the places they consider

"home." This can lead to a conceptual severance between home and "nature," wherein students begin to think of "pure" nature as an abstraction: beautiful, often spectacular places that are uninhabited by—and thus protected from—people. In this vein, children who are never taught to perceive and explore natural processes occurring around them on a daily basis are less likely to develop environmentally responsible behavior in their home environments (Fisman 2005).

Similarly, some approaches to EE that aim to ignite action and resolve in students can instead, if delivered too early, result in paralysis and inaction. Sobel warns against laying "the weight of the world's problems" (1997:33) on elementary school students before they've had an opportunity to fall in love with nature. All too often, EE relies on fear to instill an environmental ethic in children; students will be fraught with concern over endangered species in the Arctic or deforestation in the Amazon before they have any intimate knowledge about the places they've grown up in. In such cases, EE might inadvertently foster a sense that environmental problems are too big to tackle. "The environment" becomes a landscape of fear and anxiety, a sentiment known as "ecophobia" (Sobel 1997), which undermines EE's ultimate goal of rooting ethical environmental behavior in a sense of connectedness with nature. We cannot demand that children inherit the world's ecological problems before they've experienced an authentic bond with a real place.

Research has shown that positive outdoor experiences during childhood may be the most significant source of environmentally responsible sentiment and behavior during adulthood (Gosling and Williams 2010; Gruenewald 2003; Sobel 1997; Vaske and Kobrin 2001; Wilson 1997). Accordingly, practitioners and scholars who acknowledge the aforementioned problematic elements of EE offer an antidote in the form of place-based education, an interdisciplinary approach to environmental learning that zeroes in on local places and

communities, highlighting the relationships between people and the ecosystems they reside in. Sobel (2004:7) writes,

> Place-based education is the process of using the local community and environment as a starting point to teach concepts in language arts, mathematics, social studies, science, and other subjects across the curriculum. Emphasizing hands-on, real-world learning experiences, this approach to education increases academic achievement, helps students develop stronger ties to their community, enhances students' appreciation for the natural world, and creates a heightened commitment to serving as active, contributing citizens.

By nesting curricula in the context of particular places that are relevant to students, educators begin to reject dominant "educational discourses [that] seek to standardize the experience of students from diverse geographical and cultural places" (Gruenewald 2003:7). Within the sphere of environmental education, place-based education offers a response to an epidemic of "placelessness" that plagues societies immersed in the echoes of modernity. Multiple scholars refer to "modernity" as signifying a certain level of industrialism, not only in reference to literal mechanization and the removal of humans from natural surroundings, but also the conceptual disregard of natural restrictions that characterizes modern human progress. Rather than operating within the levels of abundance and limits naturally provided by wild environments, modern society often has evolved in direct competition with nature, to the point that human lives can easily take place exclusively in constructed environments that are standardized within and across otherwise unique bioregions (Birkeland 2008:286). Placelessness then emerges with "the unplanned destruction of distinct places….[and] insensitivity towards the subjective experience of place for human beings" (Birkeland 2008:287). More than ever in an era of rapid globalization that has homogenized human experience around constructed artifacts, people are collectively forgetting what it means to belong to a place.

My intention is not to demonize modernity, but rather to identify the problematic elements of this particular course of societal evolution, so that we may better determine appropriate solutions. Placelessness is a problem, especially in the way that it has infiltrated the public school classroom. David Orr writes that "locality has no standing in the modern curriculum. Abstractions, generalized knowledge, and technology do" (1994:130). Conventional classrooms often expect students to become knowledge receptacles capable of absorbing and reciting knowledge created elsewhere, by others. This approach to education—which demands that students somehow become masters of knowledge they have no personal connection to in order to function and succeed in a modern, consumer-based world—is antithetical to a much older, place-based approach to learning in and about one's place and community, which could very well be an old solution to a relatively new problem.

Place-based education is cultivated from the ground up, allowing students to acquaint themselves with their local communities and the unique spaces they inhabit. For elementary school students, place-based education should focus on nurturing a strong sense of place, attainable through exploration of a natural world they can regularly interact with (Sobel 1997).

Existing literature loosely describes "sense of place" as a combination of "place attachment" and "place meaning" (Kudryavstev, Stedman, and Krasny 2012). For the purposes of describing these constructs, it is important to acknowledge the concept of "place" as not merely a physical location, but the aggregate notion of a physical space that is imbued with meanings, values, and experiences of the people who relate to it (Brandenburg and Carroll 1995). My previous discussion of an expanding sense of "placelessness" in the modern world can be interpreted as the *absence* of "the experience of having a place and being in a place in a holistic sense, in an emotional, embodied, and cognitive sense" (Birkeland 2008:292). According to

Kudryavstev et al., "*Place attachment*…refers to the bond between people and places, or the degree to which a place is important to people" (2012:231, emphasis in original), while "*Place meaning* refers to the symbolic meanings that people ascribe to settings" (2012:232, emphasis in original). Multiple scholars suggest that developing a sense of place is the foundation upon which the broad goals of environmental education must be built. As proposed by Vorkinn and Riese (2001:250), "attachment to a place involves care and concern for the place (Relph, 1976), which implies that individuals with a strong attachment to an area probably will oppose environmental degradation."

Place-based education is dedicated to facilitating first-hand experiences in places, as well as exposing the cultural and historical landscapes embedded in those locations. It is grounded in the idea that places are inherently pedagogical, and that "as centers of experience, places teach us and shape our identities and relationships" (Greenwood 2013:93). Accordingly, place is a discursive concept that is cyclical in nature: physical spaces affect people, who in turn manipulate those spaces into places infused with culture and identity. Relying on this cycle of influence, place-based education trusts that attachment and meaning will emerge naturally out of direct, localized experiences in spaces that are immediately relevant to students.

Place-Based Education and Science

Despite evidence supporting its effectiveness at improving academic achievement across multiple disciplines (Powers 2004), place-based education has yet to penetrate the walls of conventional U.S. education standards and curricula in a systemic way (Smith 2007). The nature of place-based education is incongruous with a national education system that is still deeply infused with "district or state curriculum mandates, coupled with textbooks written for a national

market, [that] tend to focus on definitions and general principles rather than on questions drawn from children's immediate experiences" (Smith 2002:588). As such, it requires a tremendous amount of time and effort—in addition to already demanding professional responsibilities—for teachers to facilitate truly engaging place-based experiences for their students. For this reason, the emergence of place-based studies in classrooms often occurs in science lessons, given that the nature of inquiry-based science education is generally conducive to place-based nature studies (Endreny 2009; Smith 2002). As evidenced by Endreny (2009:502), "investigation is an inherent part of place-based learning."

The success of place-based science education is predicated on the supposition that "children possess minds that are primarily drawn to actual phenomena rather than to ideas about phenomena" (Smith 2002:586), requiring outlets for satisfying their innate interest in the natural world. At its core, science is a method of inquiry that allows people to accrue knowledge about the world using a systematic process of observation. However, conventional science education standards regularly conform to what Gregory Smith (2007) calls the "Constraining Regularities of Public School." This is a model of education that has evolved—though arguably not much—from industrial-era schooling, in which students are expected to ingest information from instructors and regurgitate it on demand. As is admirably summarized by Metz et al. (2006:313-314),

> Such decontextualized, textbook-centred teaching is based on the mistaken assumption that learning facts through a set of exemplars is adequate for obtaining an understanding of science. The unrealistic expectations of text-books are that students can extend their understanding of exemplars to the real world in which they live.

It follows that "scientific study becomes detached from the world rather than part of it," (Smith 2002:588), and students in conventional science classrooms often *learn about* science, instead of

doing science. There is a vast difference between a science class that asks students to memorize the changing natural watershed properties of the Brazilian Amazon Basin from a textbook, and a science class that asks students to be outside, formulating questions and making observations about their local waterways.

The science classroom, when guided by place-based philosophy, can become a place where "teachers do not concentrate on drilling students for high stakes tests, relying instead on forms of understanding and knowledge that arise more organically through real-life investigations and problem-solving" (Smith 2007:204). This vision of an authentically place-based science classroom is not always easy to achieve, since there are few teachers who operate within school systems that "afford plenty of access to the outdoors and the community, and…teaching schedules that allow time for exploration and synthesis of place meanings" (Semken and Freeman 2008:1044). However, when place-based lessons become a priority, teachers gain rewarding opportunities to spend time outside the classroom, taking advantage of students' natural curiosities to guide engaged learning experiences (Smith 2002).

Place-based science education has emerged (or reemerged) as a response to the concern that conventional methods of delivering school science will distance students from essential science concepts at an early age, given that "our instructional and curricular decisions and practices violate the way our species learned how to negotiate the world prior to the Industrial Revolution" (Smith 2002:586). Aikenhead (1996) suggests that most standard science curricula are inaccessible to a majority of both Western and non-Western students because they are delivered in formats that are incompatible with lived experiences. As a result, every time a student enters a science classroom, they must initiate a "cultural border crossing" from the lived cultures of their peers and families into the subculture of school science. From this perspective,

we might interpret a goal of conventional science education as the "cultural assimilation of all students into science" (1996:2). When viewed as a process of assimilation, it is no wonder that students might struggle to digest distant, abstract concepts and processes that seem to be at odds with the ways they have learned to personally know and interact with the world. Aikenhead et al. (2006:404) continue, "the canonical content of the traditional (standards-based) science curriculum does not function well outside of school. Traditional school science differs from functional science, which is also about place." It follows that place, as a lived experience infused with meaning, offers an accessible gateway into the culture of science for many students.

A place-based approach to teaching science relies on what Edward O. Wilson originally termed "biophilia," or the intuitive propensity for humans to seek out and foster relationships with other living things (Liefländer et al. 2012; Orr 1994). By incorporating opportunities for nurturing biophilia, Wells and Zeece (2007:286) assert that science education can and should cultivate "science attitudes," or emotional responses to engaging in science, like "curiosity and openness to new experiences." They posit that these early experiences with science will likely determine the level of interest and commitment to scientific study that students will maintain into adulthood. If early education does not provide children with opportunities to foster biophilia and natural curiosity about the world, these students might develop a disinterest in natural studies that they retain later in life.

Western Modern Science and Traditional Ecological Knowledge

It is important to acknowledge that most school science—whether conventionally structured or experiential—is informed by a Western science tradition, commonly known as Western modern science (WMS), or even more commonly, simply "science." Many scholars

accept the notion that "all systems of knowledge about nature are embedded in a cultural group; that all systems are, therefore, culture-laden; and that science (Western science) is the system of knowledge about nature that is predominant in Western culture" (Lewis and Aikenhead 2001:3). As it is most often conceptualized in our globalized world, modern scientific thinking is informed by a long tradition of Eurocentric knowledge acquisition fueled by technological advancement and the drive to know a singularly knowable world, which some would interpret as a drive to dominate nature (Aikenhead and Ogawa 2007; Lewis and Aikenhead 2001). It is this very mode of Western scientific knowledge acquisition that arguably has contributed to many of the environmental problems facing the world today. Cobern and Loving (2001:63) ask the pointed question, "If the science community wants credit for developing high-yield grains that ease food shortages, how can the same community refuse credit for DDT's adverse consequences?" Of course, the scientific process itself is not responsible for technological failings, though the ideological framework in which science often operates—rapid and often unbridled growth, along with a reductionist worldview—are certainly Western cultural constructs that are partially accountable for many of the harmful consequences of scientific progress.

However, the problem with Western modern science is not just that it is Western, nor that it is modern. The problem with Western modern science is that within a dominant culture that is both Western and modern, WMS becomes merely "science." As such, "the problem is that too often science is used to dominate the public square as if all other discourses were of lesser value. This is a hierarchic view of knowledge with science placed at the epistemological pinnacle" (Cobern and Loving 2001:62). Scholarly debates aside, WMS remains a privileged mode of accumulating knowledge and understanding the world. Though it is one of many such

methodologies, its practitioners, most of academia, and the general public—which has evolved under the same dominant Eurocentric worldview that has influenced Western scientific thinking—consider it to be the one truly universal way of knowing.

Science relies on the idea that the universe is a system composed of elements that interact in regular patterns, which humans have the ability to observe, interpret, and comprehend through precise methodical study. Western modern science "distinguishes itself from other ways of knowing…through the use of empirical standards, logical arguments, and skepticism, as scientists strive for certainty of their proposed explanation" (National Committee for Science Education and Assessment 1992 cited in Snively and Corsiglia 2001:22). That being said, indigenous and multicultural science educators and advocates also acknowledge that "objects and events occur in consistent patterns, but how these phenomena are interpreted is influenced by language, culture, physical conditions, and events" (Snively and Corsiglia 2001:22). This perspective suggests that many distinct cultures likely have observed and deliberately documented much of the same natural phenomena, albeit in very different ways. In other words, distinct cultures have developed their own approaches to doing science, even if most of those approaches have yet to be translated into Western thought and language, or interpreted to fit conveniently into a WMS framework. Considering the vast array of different sciences that likely exist in cultures around the world, Murfin (1994:97) suggests, "some of these may just possibly fill in the gaps in others."

There is a longstanding debate within multicultural science education literature about whether conventional science education necessarily occludes traditional ecological knowledge (TEK) or indigenous ways of knowing. Similarly, there is lingering disagreement between scholars on whether or not there can be cultural plurality in science education; in other words,

does there exist a multiplicity of sciences or scientific ways of knowing? Some scholars argue that instead of focusing on a singular scientific method, early science education should focus on "styles of scientific reasoning…which are employed by the sciences, not all of them at the same time by all the sciences perhaps, but some of them by some of the sciences some of the time" (Irzik 2001:72). In many cases, TEK accrues over generations of close observations of and interactions with a particular landscape. Therefore, some forms of TEK are ideal representations of applied scientific knowledge that have emerged out of non-Western cultures—does it matter if the epistemologies guiding the knowledge acquisition deviate from Western ways of thinking? If knowledge about the medicinal properties of a specific plant is accumulated through a non-Western system of collecting and recording information, perhaps through a system of oral storytelling carefully and intentionally shared between generations, is such knowledge any less valid than the same knowledge acquired through a secular system of knowing that claims to observe a singular, universal reality that is more authentic and "more powerful than any cultural attempt to interpret it" (Stanley and Brickhouse 2001:38)?

Such ontological debates as they pertain to science education may risk plunging into a never-ending spiral of unhelpful relativism. Eric Riggs (1998:218) writes,

> Science and spirituality in any form cannot be the simple antitheses of each other. They must be viewed rather as serving complementary functions, each of which contributes immensely to the knowledge of the human species. The only problems arise when one group transgresses the boundaries of what is appropriate and reachable by the methods commonly used by each discipline.

This directs the conversation to the notion that the Eurocentric tradition of WMS, while an undeniably effective form of knowledge acquisition, has often lacked the wisdom and ethical guidelines that are frequently implicit in systems of knowing that have emerged from other narratives—narratives that are not focused on reductive, unchecked information gathering and

progress for the sake of progress. He continues, "any scientist who pretends to have absolute answers for anything, especially when the issue transgresses into the realm of the untestable, is being dishonest to the profession, and has also demonstrated a deep misunderstanding of the scientific method" (1998:219). This is not to say that TEK is only valuable for its guidelines on wisdom and ethics, but rather that, at times, TEK can demonstrate ways of knowing that express a humility and holistic wisdom sorely lacking from the WMS discourse that dominates school science. All this bolsters an argument for place-based approaches to education that can eliminate many of these abstractions from the conversation. As Snively and Corsiglia (2001:28) suggest, "the point is not to establish that one form of science is more relevant than another, but to develop scientific thinking and to ground the study of science within the actual world in which students live their lives." The "actual world in which students live their lives" must be wholly meaningful to students before a Western modern scientific approach reduces it into functional components. The world will not retain meaning without connection and context.

Storytelling and Environmental Narratives

I am reluctant to continue writing about "traditional" and "indigenous" ecological knowledge in the abstract, for fear of reinforcing the fallacy that every non-Western culture can be generalized into one "alternative" category. Instead, I will explore a tool that, along with selective applications of WMS, has guided the Confederated Salish and Kootenai Tribes' approach to knowledge accumulation and natural resource management on the Flathead Reservation: storytelling.

Karasti, Baker, and Bowker claim that "storytelling is particularly well suited to convey social commemoration of history, values and identity" (2002:29). Put simply, people will

remember information better when it is delivered in narrative form. Stories provide connections between new knowledge and stored knowledge, and provide lenses through which people begin to make sense of their lives. Wirth and Gamon (1999:50) succinctly state,

> Truth established in narrative has a stronger cognitive effect than truth established through rationality (Bruner, 1986). People need social interactions and emotional well-being to survive, and stories can satisfy our deep need for interconnection with others.

They continue to suggest that "narratives can structure a sense of self and the interaction of self with others within the environment" (1999:48). We see this clearly in the manifestations of Western narratives involving nature: humans are separate from, and meant to dominate and domesticate wild nature (Preston 2001). As such, the world has been stamped with our homes, food, infrastructure, and waste, restricting those elements that are perceived as "wild" nature to parks and other controlled bubbles of space. In this way, dominant narratives govern the ways in which we interact with the world around us, resulting in actual effects on the earth.

Subscribing, as I have done so in the literature review above, to the notion that human beings have caused undue environmental damage, and that disconnection from place is a problem that perpetuates these harmful patterns, I would argue that what the story of WMS lacks is guidance from an appropriate ethical framework. In order for students to become invested in any approach to place-based science education, they must first "develop bonds with natural places so that they will grow up to care about the natural environment and their effects upon it" (Blizard and Schuster 2007:173). Storytelling can serve not only to deliver knowledge in a digestible and memorable way, but can additionally function to "catalyze the development of a sense of place" (Blizard and Schuster 2007:175). Aaltonen, in perceiving a grand urgency to respond to global environmental crises, calls for the genesis of "connecting, life nurturing stories

[that] need to be told in order to change humans' relational separation from other life forms" (2011:155). But what if those stories already exist?

I would agree with Preston (2001:250) that "there is no single tradition that has an exclusive claim to be uniquely capable of generating appropriate environmental attitudes." By supporting the idea of a place-based curriculum grounded in the stories of a particular cultural tradition, I am not suggesting that this is a universally appropriate concept. Rather, I am supporting the claim that by my assessment, many classrooms in a particular area of study—Western Montana—historically have lacked the stories necessary to promote a restorative environmental ethic. Preston (2001:249-250) writes,

> When a tradition becomes too conservative, which happens when it has immunised itself against both internal and external criticism, then the tradition is dead or dying and should be rejected. A vital tradition, in contrast, has the form of a continuous debate about what it means to participate in a particular set of ideas that explain one's positionality in the world.

I argue that in many ways, WMS is a tradition that has been guided by the narrative "myth of progress" (Sandlos 1998), a Western anthropocentric tradition that cannot be considered a "vital tradition" according to Preston's definition if it is unwilling to incorporate appropriate wisdom from other stories, and other ways of knowing. That being said, I do not wish to perpetuate a "noble savage" myth by suggesting a quixotic return to an ideal age of indigenous living that particular stories might illustrate. Instead, I advocate a return to place. As Wirth and Gamon (1999:58) state, "to teach without being clear about the context of the landscape is to tell only part of the story. Students need to know what was here and what might return." This can only happen on a limited scale. There is no universalist narrative that is entirely applicable to distinct bioregions with unique natural and cultural histories. There are many stories to tell, and they must be told in the places they came from.

> The teacher is of course an artist, but being an artist does not mean that he or she can make the profile, can shape the students. What the educator does in teaching is to make it possible for students to become themselves.
>
> The educator has the duty of not being neutral.
>
> —Paulo Freire, *We Make the Road by Walking: Conversations on Education and Social Change*

METHODOLOGY

In-depth Interviews for Qualitative Research

When I began formulating this study, my intention was to find a way to evaluate the River Honoring's effectiveness at achieving its goals of connecting students to place and promoting a sense of lasting environmental stewardship. I perceived a lack of evaluative environmental education research that contributed to the academic literature in ways that moved beyond limited anecdotal evidence. At the time, I was immersed in a culture of scientific research, which tends to privilege data that researchers are capable of quantifying and generalizing to have broad implications. Because of this, I wanted to produce a study that could enrich the discourse with "legitimate" evidence. However, as I proceeded, I realized that in many ways, the content I hoped to gather transcended the limits of quantifiable data. I found that I did not intend to test a particular hypothesis, and I had a greater interest in "understanding the lived experience of other people and the meaning they make of that experience" (Seidman 2013:9). For a discipline as fluid and subjective as environmental education, especially as it occurs in one distinct place ("place" here referring to all of the unique cultural, historical, and ecological meanings implied by the concept), a qualitative inquiry seemed the most appropriate approach.

For this qualitative study, I conducted a series of in-depth, face-to-face interviews with teachers who had previously attended the Flathead River Honoring with their fourth or fifth grade classes. With the intention of exploring teachers' perspectives on the River Honoring event and the Lower Flathead River curriculum, I chose to structure the study around in-depth interviews in order to support my goal of collecting "rich qualitative data on a particular subject from the perspective of selected individuals" (Hesse-Biber and Leavy 2011:95). Seidman (2013:18) states that "a basic assumption of in-depth interviewing is that the meaning people make of their experience affects the way they carry out that experience." As such, I hoped to find connections between the meanings derived from interview responses and teachers' actions both in and out of the classroom.

Interviews followed a semi-structured format in order to guide conversation while also allowing participants the space and flexibility to share whatever they wanted to talk about regarding the River Honoring. Unlike highly structured interviews, which strictly follow a set of unchanging questions in order to collect data in the fashion of a questionnaire (Hesse-Biber and Leavy 2011), my interviews only loosely followed a series of questions, while teachers were encouraged to elaborate where they saw fit, even if it caused the conversation to veer into unanticipated directions. It was my assumption that my interviewees were the guardians of insights I might not have considered beforehand. In this way, the interviews highlighted the observations that teachers found most important and worthy of discussion.

Participant Selection

Several factors influenced my decision to interview teachers instead of students. First off, the time constraints I faced as someone working on a master's thesis rather than a doctoral

dissertation limited the time I could dedicate to attaining approval for conducting direct research with minors. Working with children demands extensive ethical considerations, and I lacked the time necessary to establish a proper foundation for that kind of project. Secondly, I determined that in-depth interviews would be an appropriate format for conducting an initial study of the River Honoring, and adults were better suited to speaking frankly about some of the concepts I wished to explore. Finally, and perhaps most importantly, teachers were the ones facilitating students' experiences of the River Honoring and the Lower Flathead River curriculum. Not only would they be able to offer broad observations of their classes' collective experiences, but their perspectives also undoubtedly would influence how they exposed students to particular educational content.

Given that this was a place-based study focused on a limited number of schools and classrooms, my participant selection process was relatively straightforward. I obtained a teacher contact list from the organizers of the River Honoring within the Confederated Salish and Kootenai Tribes' Division of Fish, Wildlife, Recreation and Conservation. All individuals on the list had been given the Lower Flathead River curriculum a month prior to the 2014 River Honoring event, had been invited to attend the 2014 River Honoring, and had participated in the event with their 4th or 5th grade classes. The list provided me with email contacts for nineteen individuals, and I proceeded with the intention of interviewing all who would be willing to be interviewed, without bias towards age, gender, school, teaching experience, or other factors. I sent out an initial request for interviews via email, and followed up with two more waves of emails and a final phone call to schools for those who did not respond immediately. Of the nineteen teachers I contacted, eleven eventually responded, ten of whom were willing to be interviewed in person and one who consented to answer questions via email because she was no

longer teaching in Montana. The one conversation that transpired through email did not adhere to the intention of the study, nor did it attain the level of meaning I hoped to achieve with my in-depth interview format, so for the purposes of this study, I excluded that participant's responses from my analysis.

The following tables illustrate a demographic breakdown of the participants in this study:

Gender	
Female	6
Male	4

Grade taught	
4th grade	3
5th grade	7

School location	
Flathead Reservation	5
Off-reservation	5

Tribal affiliation	
CSKT tribal member	1
Non-native	9

Originally from	
Western Montana	8
Out-of-state	2

Though I hoped to conduct over fifteen interviews in order to achieve an appropriate "saturation point" at which my interviews were no longer producing new qualitative data relevant to my study (Hesse-Biber and Leavy 2011), the specific nature of the study's focus inherently limited the number and availability of willing participants. For the purposes of this study, I believe that ten interviews allowed for me to observe compelling patterns in responses.

Furthermore, I assert that my study belongs in a category of "exploratory, concept-generating studies for which it is…reasonable to have a relatively small number of respondents" (Crouch and McKenzie 2006:491). Indeed, as the first structured study of the River Honoring and its accompanying curriculum, my investigation is more concerned with uncovering a host of perspectives that exist, rather than the amount of such perspectives there are. As Crouch and McKenzie (2006:492) add, "it is in the nature of such exploratory studies to indicate rather than conclude….[and] such studies formulate propositions rather than set out to verify them."

Bias Considerations

It is important to consider the possibility that my participants were self-selecting to an extent, in that the teachers who were willing to participate in interviews may have been the ones who tended to have more positive experiences with the River Honoring. Despite varying nuances in teachers' perspectives, it was immediately evident that every teacher I spoke to was glad to have their classes participate in the River Honoring, and was hoping to continue being invited to attend in the future. As such, prior to each interview, I offered participants an informed consent letter that included a brief description of the study's intentions, the interview process, and clear assurances that no names or specific identifying information would be disclosed in any references to the data collected. In this way, I hoped to maximize participants' confidence in their anonymity, thereby ensuring that conversations were as honest and uncensored as possible.

It is equally important to acknowledge that I, the primary researcher, am not objective, nor do I strive to be. I began this study with my own set of biases, including the fact that I am a supporter of experiential, place-based, and indigenous education. Accordingly, it is possible that

I unknowingly influenced the course of interviews with the questions I chose to ask, the language I used, and the comments I chose to make. Additionally, data interpretation—especially meaning-making of in-depth interviews—is a highly subjective process that inevitably will demonstrate pieces of my individual experiences and perspectives. Though I do not pretend to be an objective observer throughout this research process, I do endeavor to remain honest, to suspend judgment, and to represent my interviewees' intentions as accurately, and with as much integrity, as possible.

Interview Process

Beginning in the summer of 2014 and continuing through the following winter, I conducted in-person interviews with ten individual teachers from public schools in Western Montana's Lake County, Missoula County, and Ravalli County. Acknowledging that teachers have incredibly busy schedules, I offered to meet interviewees wherever and whenever would be most convenient for them to have a relaxed conversation. For all of my participants, this meant meeting them in their classrooms after school hours. Because I allowed the conversations to flow as naturally as possible, interviews lasted anywhere from forty-five to ninety minutes.

With each participant's consent, I documented every interview using audio recording, subsequently saving audio files on a password-secured tablet. Though every participant had signed an informed consent letter detailing the context and content of my research, I initiated each interview by explaining that I was a graduate student in environmental studies at the University of Montana, that I was researching the River Honoring as part of a study on place-based education, and that I would be asking them about both their personal teaching experiences and their class's experiences with the River Honoring and the accompanying Lower Flathead

River interactive DVD. I would then ask a series of background questions that would provide some additional context for the conversation: How many years have you been teaching? Which grade levels have you taught? How long have you been living/teaching in Western Montana? Do you have any tribal affiliations? Do you have students with tribal affiliations?

The bulk of each interview proceeded with a series of open-ended questions intended to cultivate space for extended, reflective responses. I began with questions about interviewees' use of the Lower Flathead River DVD in the classroom, if they had used it at all. If teachers immediately described ways in which they integrated parts of the DVD, I would allow them to share as much as they were inclined to, occasionally asking them to elaborate about aspects that they found most useful, that their students found most engaging, or that didn't function as well as they had hoped. If teachers had not used the DVD for some reason, I would ask them why it hadn't fit into their teaching plans, using this as a platform to inquire about the role that experiential, place-based lessons played in their classrooms, and which barriers—whether it be teaching standards, resources, school structure, or other factors—they perceived as limiting their capacity for integrating such lessons.

Discussions about place-based education usually segued naturally into questions about the River Honoring event. Initially, I would ask teachers to describe their class's overall experience at the event. Based on the depth of the teacher's response, I would probe for further information, specifically about how students responded to different activities, and what observations they made about their students' behavior during different experiences. Though it was immediately apparent with each interview that teachers were pleased to participate in the event with their classes, I would ask each teacher to elaborate on the particular aspects of the River Honoring they chose to emphasize in conversation. In this way, I hoped to distinguish

teachers' varying perspectives on how the River Honoring fits (if at all) into broader classroom themes, and the event's implications for student learning.

As discussions trended towards the meaning of the River Honoring for students, I would use this as a platform for launching into the idea of the River Honoring and the Lower Flathead River curriculum as values-laden approaches to education that aim to inspire senses of place connection and stewardship in students. I would ask interviewees if they integrated any environmental ethics into their classrooms, and if so, how they went about it. This line of questioning transitioned nicely into how teachers navigated the idea of values-based multicultural education. I would ask teachers how they felt about incorporating educational content that was clearly outlined by a specific cultural identity, how they approached teaching American Indian content (if at all) to classrooms of both Native and non-Native (sometimes exclusively non-Native) students, and what role they thought traditional ecological knowledge could or should play in place-based science education. Because these topics had the potential to cover personal values and versions of cultural conflict, I expected for this to be the most sensitive area addressed by my interviews. Therefore, my intention was to shape questions with a tone and pace that exhibited a sense of open curiosity and genuine interest in teachers' honest opinions. In this way, I hoped to avoid any discomfort and/or defensiveness in participants' responses.

I concluded each interview with an open-ended request for any other information—regarding the River Honoring, the accompanying educational materials, or other thoughts on place-based or multicultural education—that teachers thought would be relevant to my study. This allowed them to expand on anything else they found to be significant, which provided one last opportunity for meaning-making to occur. This was often the space in which teachers

reiterated thoughts they felt were important for me to understand before concluding our conversations.

Interview Analysis

To prepare my data for analysis, I chose to perform comprehensive, verbatim transcriptions of each interview. Every transcription included exhaustive documentation of any expressions perceptible from the audio recordings (including pauses, laughter, and emphasis), which I did in the interest of producing data that was as transparent as possible. I acknowledge that the process of translating an audio recording into text carries with it an inherent bias, in that one person chooses the aspects of the recording that may or may not be important enough to include in the transcription. Because I would be responsible for interpreting interviews and deriving meaning from each conversation, I wanted to limit initial transcription bias as much as possible, and I transcribed recordings as accurately as I was capable of.

Once I completed the transcription process, I did an initial read of each transcript with the intention of getting a holistic sense of each interview. During this first reading process, I kept a log of general notes about my impressions of each interview, and the themes that individual teachers seemed to emphasize during our dialogue. After reviewing my introductory notes, I crafted a list of analytical codes that would guide subsequent, more careful readings of my texts. Unlike literal codes, which are specific words that actually "appear within the text and are usually descriptive codes" (Hesse-Biber and Leavy 2011: 311), analytical codes would allow me to engage in a more interpretive coding process, in which I would be responsible for deciphering and categorizing the meaning behind certain statements, rather than the actual words that were spoken.

In order to formulate a cohesive list of analytical codes, I first extracted the themes that seemed to be most significant to the interviewees by pinpointing the topics that teachers emphasized in the language they chose, the thoughts they repeated, and the time they dedicated to speaking about such topics. Additionally, I formulated codes for the topics that teachers seemed more uncomfortable with, or unsure about. I identified these topics by assessing each interview for long pauses and language that indicated uncertainty or sought validation (i.e., "I don't know," "do you know what I mean," "does that make sense," etc.).

After documenting the occurrence of different codes throughout my ten interviews, I ordered them under three main categories, "Classroom Culture and Environmental Education," "Navigating a Multicultural Landscape in the Classroom," and "Storytelling and Place-Based Education." In this way, I hoped to develop a coherent structure to analyze teachers' responses from. Once codes were organized under a thematic structure, I extracted quotes from each interview that I felt were particularly suitable for illustrating different topics.

Conclusion

All things considered, I believe that structuring this qualitative study around analytical coding of in-depth interviews was an effective approach for answering my primary research question (how do teachers frame, and perceive student responses to, the Flathead River Honoring?), as well as for collecting teachers' nuanced perspectives of place-based and indigenous education in Western Montana. Using this methodology allowed unanticipated themes to emerge from each interview, and I was able to derive meanings that transcended the limits of a more quantitative approach to research.

In the following chapters, I discuss the results of my study as interpretations of single in-person interviews with each participant. In order to protect participants' anonymity, I do not identify teachers by name or school, though I do speak generally about teachers that work on or off the reservation, teachers that identify as Native or non-Native, and teachers that have differing levels of teaching experience and exposure to certain concepts.

Each ensuing chapter focuses on a particular theme as it relates to my primary research questions. In "Classroom Culture and Environmental Education," I explore how teachers generally approach the idea of environmental and place-based education for their students, focusing specifically on how they did or did not incorporate the Lower Flathead River DVD and River Honoring event into their classrooms, and what they observed in student responses. In "Navigating a Multicultural Landscape in the Classroom," I deconstruct teachers' concerns (or lack thereof) about using culturally specific, values-based material in classrooms of students that identify as both Native and non-Native, and how this shapes their perception of the River Honoring and its supporting educational materials. Finally, in "Storytelling and Place-Based Education," I examine teachers' observations of their students' responses to storytelling in different contexts, ultimately exploring the value of storytelling as an approach to culturally informed place-based education that is both respectful and engaging.

> I'm more interested in arousing enthusiasm in kids than in teaching the facts. The facts may change, but that enthusiasm for exploring the world will remain with them the rest of their lives.
>
> —Seymour Simon

CLASSROOM CULTURE AND ENVIRONMENTAL EDUCATION

CSKT's Natural Resource Department intends the Lower Flathead River DVD to be a comprehensive compilation of cultural, historical, and ecological resources for teachers to integrate into their classrooms as they see fit. Ideally, the interdisciplinary nature of the material provided on the DVD would allow teachers to integrate a large portion of the content into regular lessons throughout the school year leading up to the River Honoring. In this way, the CSKT's Division of Fish, Wildlife, Recreation, and Conservation hopes to expand the educational value of the River Honoring beyond the limits of a singular field trip experience.

The majority of teachers I interviewed were positive advocates of integrating the story of the River Honoring and the Lower Flathead River educational materials into their classrooms throughout the school year. When I asked teachers if they felt inhibited by Common Core standards in this regard, six of them—all five off-reservation schools and one from the Flathead reservation—asserted that they had the power to teach what and how they wanted. One teacher explained that, especially at the fourth and fifth grade levels, Common Core standards were usually broad enough to encompass whatever material the teacher found suitable, which, for this particular teacher, included the entire Lower Flathead River DVD. When I asked her if it was difficult to navigate around certain teaching requirements, she confidently replied, "No. No, you can write and read in everything. Anybody who says that is…no. I mean, you can integrate reading and writing in the core standards into *everything*, I think." Another teacher added, "We

can cover everything [from the DVD] just looking at our Clark Fork watershed. There's not one part of Montana history that we can't tie into it all….That curriculum is so comprehensive, it is integrative, it is authentic, and it covers almost every subject area."

These interviewees described the materials they were provided with as commendably interactive and easy to integrate. Four out of these six teachers specifically mentioned the components that focused on native fish, plant identification, and animal tracking as particularly useful for engaging students in fun, tactile activities. After hearing from one teacher that she didn't think the DVD was structured in a way that fifth graders would be receptive to, I began asking other teachers if there were any DVD segments that they presented to their classes completely unfiltered. The four teachers I asked—including all three fourth grade teachers—all replied yes, citing the elders' monologues as a particularly appealing section to present straight to their students. When I asked if they felt like their students responded well to this, they replied yes without hesitation. Two of them even gave me an "Absolutely."

That being said, if there was one thing that became apparent after I concluded the first few interviews for this study, it was that teachers were far more inclined to speak extensively about obstacles they faced than about things that were working well. I want to make it clear that I *do not* attribute this to a proclivity towards complaining. Rather, I ascribe this trend to the unique opportunity provided by my interviews: for teachers—who work incredibly hard to serve their students—to be heard, and to have a safe venue for naming the barriers that they think impede their work.

Three out of the ten teachers I interviewed did not believe it would be entirely possible to expand the River Honoring into a more comprehensive educational unit. Interestingly, all three of them, both male and female teachers with anywhere from six to thirty years of teaching

experience, represented on-reservation schools. A major reason cited for doubting the idea of a comprehensive Lower Flathead River unit in the classroom was a lack of time given the considerable requirements they were already trying to meet as teachers. When I asked these teachers about how they chose to integrate components of the DVD (if at all), they described a process of scanning the material and extracting the pieces that fit nicely into their established curricula. In these cases, it became clear that although teachers saw value in the material, it was considered supplemental to their existing methods for meeting their teaching standards. As one teacher remarked in reference to the different components of the DVD, "Some of them tie in very well to some of the things we need to present, others don't….Some of them are easy to be taken and integrated into the Common Cores, others I would say not so much."

Language such as "I would like to, but…[I have a lot of other requirements]" or "That would be nice, but…[I don't have the time to fit it in]" indicated that these teachers perceived Common Core standards as a barrier to the idea of the River Honoring becoming more than a field trip. From this perspective, Common Core goals seemed to exist separately from strategies like place-based education. In essence, it was favorable when existing lessons happened to be place-based; otherwise, these teachers conceptualized place-based activities as ancillary to the curricula they were already familiar with, which they knew from experience to meet their standards in certain ways.

These teachers were approaching their resources from a much different perspective than others who felt certain about how to employ the materials they received. Some of them offered comments that were so inconsistent with what I'd heard from other interviewees, I had to ask clarifying questions just to make sure that we were talking about the same components of the Lower Flathead River DVD. Contrary to comments I'd documented about the DVD being easy

to use in class, certain teachers insisted that its components were not kid-friendly enough to insert directly into the classroom.

One teacher made the decision not to use any of the DVD in her class, largely because she didn't feel the information was packaged in an accessible way. After reviewing the contents of the DVD on her own, she determined that its components by themselves were not user-friendly enough for her students. She shared her perspective that although she thought the material was important, it was presented in a way that was "just not fifth grade appropriate." She was adamant that the material itself was not enough to capture students' interest; if the DVD was going to be an effective learning tool, it would have to be structured to include more games, otherwise her students would "just pick through material to find answers as fast as they can to whatever question they're being asked…they're not learning anything, they're just picking at it." This teacher conceded that she could work at formatting the information in an engaging way on her own, but that this would require her to put extra time and energy into something she already considered to be supplemental, not integral to the lessons structured into her classroom

Another teacher, one who had chosen to integrate all components of the DVD into her classroom, remarked on the reason why she thought some teachers might be reluctant to do the same: "I think there's a lack of understanding about the value and how to incorporate it, not necessarily as something that's totally separate, or an outlier….I think that many teachers feel it's just an additional thing they have to do, instead of it's not additional, it can be incorporated." This comment accurately reflects the sense I got from the teachers who were most reluctant to embrace the idea of a comprehensive Lower Flathead River curriculum in their classrooms: where on earth would they find the time?

This same interviewee, a fourth-grade teacher from an off-reservation school, mentioned that she had attended a training with Germaine White and Tammy Elser, CEO of Insight Educational Services based out of Missoula, for teachers interested in implementing the Explore the River curriculum in their classrooms. The Explore the River resources have been available for years, far longer than the Lower Flathead River curriculum, during which time there have been multiple opportunities for teachers to obtain guidance on how to use the resources offered to them. Of this training, she said, "There were some things in there we didn't think we would do with our kids, and when we came back, we did do them with our kids. It just helped to turn on the light bulb and say, 'wow, that would really fit in with what we're doing,' because it can feel daunting, just being handed such a huge amount of content." She commented that she would love to have the opportunity to attend a similar training for the Lower Flathead River materials. After hearing this, I began asking teachers in subsequent interviews if they would be interested in attending a training on the content they were given. All five teachers I asked replied that they would.

Incidentally, or perhaps correspondingly, the three teachers who used few components from the Lower Flathead River materials were also the ones who did not facilitate regular reflective activities in their classes following the River Honoring. The common sentiment here was that the event happens towards the end of the school year when teachers are trying to wrap up a host of other things in the classroom. If there were a direct overlap between the River Honoring experience and other curricula currently in progress in the classroom, these teachers would be glad to incorporate reflections on the event. As one teacher noted, "Sometimes we do and sometimes we don't. I guess it depends on what strikes me at the particular time, if I see something that's pertinent that we can bring back to the classroom….Again, depending on if they

hit a topic that we are doing at that time." When teachers regard the River Honoring as an isolated field trip, they do not prioritize further meditations on the event as much as other subjects. The notable theme here is that teachers consider "other subjects" to be just that: "other" than, or separate from, the ideas that emerge from students' time on the banks of the Flathead River.

This same teacher consistently returned to the idea of relevant *information*: "The informational part—I try to look at if the information is relevant," "It's still good information," "It's the informational stuff I try to use." This appears to reinforce the perspective that place-based education is useful to the extent that its content conforms to specific material used for compartmentalized topics. This is contrary to the viewpoint (specifically on place-based science, but applicable to place-based education in general) offered by Aikenhead, Calabrese, and Chinn (2006:406), that

> having a place-based understanding of science and teaching a place-based science is not about the topics taught (i.e., teaching about native plants) and the concepts embedded within (i.e., the role of plants in recycling waste water)….place-based teaching of science is grounded in one's practice of science, or in how one constructs knowledge through the relationships and activities in which one engages.

Aikenhead et al. regard place-based education as a process-oriented approach to constructivist teaching practice. On the other hand, this particular teacher's interview evoked a teaching paradigm that sequesters educational material into distinct subjects, which instructors can apply pertinent place-based "information."

According to David Orr, this is a problem. In his book *Earth in Mind* (1994:94), he states that "we do not organize education the way we sense the world." He is referring here to the systems human beings have created in order to organize knowledge, which sometimes prevent us from recognizing different types of knowledge as pieces of a greater whole. It is in this way that

knowledge risks becoming abstract, decontextualized, and especially for younger children, irrelevant and uninteresting. Orr believes that an "informational" approach to education—the notion that students are vessels to be filled with knowledge—does children a disservice by focusing on standardized content rather than modes of inquiry-based learning that are motivated by natural curiosity. Even so, the "information paradigm" continues to dominate instructional philosophy for many teachers.

This is not to say that these three teachers saw no value in the place-based content provided by the Lower Flathead River interactive DVD, nor were they blind to the importance of interactive, experiential activities for their students. They all praised the River Honoring event for its dynamic structure, and its inclusion of hands-on experiences for fourth and fifth grade students, who all interviewees acknowledged are not naturally inclined to sit still and listen to information presented to them. The following table outlines the River Honoring stations that teachers specifically named as offering the most engaging experiences for their students:

River Honoring Station	**Teachers**
Native games	10
Tribal Fisheries	7 (3 on-reservation, 4 off-reservation)
Elders storytelling	7 (2 on-reservation, 5 off-reservation)
Ancestral skills with Tim Ryan	6 (2 on-reservation, 4 off-reservation)
Flathead Watershed	4 (2 on-reservation, 2 off-reservation)

Unsurprisingly, all ten of the teachers I interviewed cited a game station—whether it was double ball or a relay race—as their collective class favorite, for the obvious reason that fourth and fifth graders love playing high-energy games. Seven out of ten teachers made references to

the Tribal Fisheries station as particularly interesting to students because they were able to interact with real fish specimens. Similarly, six out of ten teachers mentioned a high level of student engagement at Tim Ryan's tutorials on ancestral Salish and Pend d'Oreille skills and technology. Four out of ten teachers praised the Flathead Watershed station—equipped with a bathtub-sized three-dimensional replica of the Flathead Watershed, which facilitators proceeded to flood with a hose—as an effective visual tool for conceptualizing watershed science, an integral piece of Montana's fifth grade science curricula.

Teachers mentioned all of these stations for similar reasons: they recognize that, at the end of the day, no matter the subject, students respond best to tangible, interactive experiences (Of the stations highlighted in interviews, the elders station was the only exception to this "interactive" description, which will be discussed in detail in Chapter Six: "Storytelling and Place-Based Education"). This was the one and only point around which all ten teachers reached a consensus. Accordingly, interviewees also acknowledged that getting their students outside was typically a good idea. At the very least, even if they didn't deconstruct precisely *why* outdoor lessons were favorable, they recognized that their students were generally happier and more engaged when they were allowed to be outside of the classroom.

Of course, teachers expressed varying abilities to include outdoor lessons at other times during the school year. While all participants voiced an abundance of gratitude for the River Honoring event, they provided very different reasons for doing so. When I asked teachers to tell me about their general experiences with the River Honoring, five of them promptly responded with praise for the way the event provided an easy opportunity for students to have an educational outdoor experience. Of these five, three teachers also expressed frustration at the obstacles they faced when attempting to arrange other outside activities. Each of these three

cited logistical difficulties and a lack of money and other resources available for teachers to facilitate even the simplest local field trips. As one teacher responded, "The hard part is getting people outside. I've tried to do site-based learning, but the logistical parts of it are hard. My budget didn't get any bigger just because I'm teaching science." This same teacher offered another compelling point, that the majority of the school year takes place during the seasons that are least conducive to spending time outside. In this way, being in Montana—a place with severe winters and unpredictable fall and spring weather—inherently limits teachers' abilities to plan outdoor field trips for their students. Referring specifically to place-based science lessons, this teacher continued,

> For me, the weather really just ruins things. You really can't predict, you know, some years it's so hot that it just burns up all the plants you're trying to teach about, and some years, it gets so cold that when you think you can teach a lesson, you didn't end up being able to teach it because, you know, it snowed, or all of your plants went to seed. There's just a little bit of time in the fall, and there's a little bit of time in the spring, because in the spring, everything—all the plants—are just starting to get there, and it's not where you need it to be to teach about it.

That being said, although it was clear that some teachers chose not to expand the idea of the River Honoring into a more comprehensive curriculum, even the most reluctant teachers plainly appreciated the event for providing a pre-organized, engaging, outdoor, educational opportunity for students—something they recognized might be lacking from their classrooms otherwise.

I want to reiterate that all of my interviewees approached their jobs as teachers with methods they believed to be most effective, always with the best interests of their students in mind. Of course, these methods varied between individuals depending on their training, their teaching philosophies, and certainly their personal experiences interacting with students. Of the differences I observed between teachers' approaches to the River Honoring and its

complementary materials, one distinctive difference stood out to me: it was clear that some teachers thought of the Lower Flathead River resources as an addition to what they were already doing in the classroom, and others saw the material as providing primary content for fulfilling certain teaching goals. The latter group distinctly included those teachers whose interviews revealed them to be the more vocal advocates of place-based education in general.

Oddly enough, the teachers who perceived the River Honoring and related materials as mere supplements to their more foundational curricula were teachers from schools on the Flathead Reservation that had been attending the River Honoring for far longer than any other off-reservation teachers (one teacher claimed to have attended for nine years in a row). Overall, this qualitative study was not grand enough in scale for me to feel comfortable making substantial correlations between teacher behavior and geographic locations. That being said, it became clear that varying geographic locations forced teachers to confront different cultural landscapes in their classrooms, which seemingly influenced their respective approaches to multicultural content. In the following chapter, "Navigating a Multicultural Landscape in the Classroom," I discuss the ways in which cultural navigation tended to emerge as a primary theme from dialogue about place-based education.

> A child who is protected from all controversial ideas is as vulnerable as a child who is protected from every germ. The infection, when it comes—and it will come—may overwhelm the system, be it the immune system or the belief system.
>
> —Jane Smiley

NAVIGATING A MULTICULTURAL LANDSCAPE IN THE CLASSROOM

Of the ten teachers I interviewed, only one identified as Salish. This element—the fact that most of my interviewees self-identified as Caucasian, or of European descent—complicated the idea of implementing a comprehensive Lower Flathead River curriculum for many teachers. Indeed, interdisciplinary place-based curricula inevitably will have very different manifestations, depending on the places in which they occur. In the Flathead Valley, comprehensive cultural-ecological studies necessarily include histories of the Salish, Pend d'Oreille, and Kootenai Tribes, stories of colonization, traditional ecological knowledge, and discussions of both Euro-American and indigenous cultural values. Especially for teachers addressing classes of both Native and non-Native students in areas with tumultuous histories of racism and cultural conflict, this can be tricky and problematic.

That being said, first I must affirm that the most common sentiment I encountered regarding navigation of multicultural content in the classroom—from both on- and off-reservation teachers—was an overwhelming sense of gratitude at being given structured educational content *by CSKT representatives*. Eight out of ten teachers, all of them non-Native, spoke very frankly about how relieved they were to receive Native cultural materials from the only true authority on the content: the Tribes themselves. Whether in reference to themselves or other teachers, they all mentioned a sense of reluctance in approaching multicultural content—especially as it pertained to local Native culture—as individuals with no tribal affiliations. As

one teacher bluntly described it, "I cannot dispel tribal stereotypes as a white chick." A common theme that emerged from these conversations was that non-Native teachers were nervous about misrepresenting information and being unintentionally disrespectful to people who might be more of an authority on the subject. A fear of being wrong can be a powerful thing, and some teachers talked about omitting Native content from their lessons altogether, rather than risk making offensive mistakes. One teacher who was particularly appreciative of the Lower Flathead River DVD and had used the entire curriculum with her fourth grade class said,

> I don't feel comfortable unless I've been handed this curriculum, you know what I mean? Because sometimes it kind of seems like we're damned if we do and damned if we don't….there's truly a reason why some teachers never try to delve in this area, because it's a hard one to win.

Many teachers echoed this opinion, commending the DVD for giving them a legitimate voice to deliver cultural content from, without, as one teacher put it, worrying about "stepping on people's toes or being culturally insensitive."

Most of the teachers I spoke with believed that exposing students of all backgrounds to local indigenous history and culture was important. Nonetheless, they also referenced a number of barriers that prevented teachers from doing so. Expectedly, the teachers who spoke from experience working in the Flathead Valley, either on or adjacent to the Flathead Reservation, reported a higher occurrence of cultural conflicts in the classroom, often stemming from racist sentiments in the community. Accordingly, the issues that teachers detected often seemed to originate from the beliefs, concerns, and/or misconceptions of students' families, rather than among students themselves. Three teachers from reservation schools revealed that every year, they encountered one or two students whose families would refuse consent for them to participate in the River Honoring. These teachers implied that such families perceived the event as the CSKT's attempt at cultural indoctrination, or as one teacher phrased it, "throwing their

culture in your face." Another teacher mentioned that she had to be extremely delicate in the ways that she approached the idea of colonization in her class. She observed that her fifth grade students—an equal mix of Native and non-Native descent—had often already internalized their families' opinions and attitudes about their *rights* to live on the Flathead Reservation. She struggled to articulate this point, eventually describing non-Native students' sensitivity to the legitimacy of their Flathead Valley heritage this way: "Kids will start to feel like you're blaming them if you talk about certain topics in a certain way. You have to be really careful about how you say that certain families have been here longer than others." She gave me the impression that there is a sense of guilt—about Western colonization of both land and people—that underlies any discussion of Native history in the area, especially when juxtaposed with the relatively brief, and often destructive presence of Euro-American settlers. Even when lessons don't directly address colonization, or are careful to avoid comparisons between students' lineages, students very easily internalize concealed implications.

In this regard, despite the outliers who did not allow their children to participate in CSKT events, two teachers referenced the River Honoring as very helpful for providing both students and their families with an open, positive cultural experience that is educational for everybody involved. One teacher shared her experience of moving to the Flathead Valley from Alaska a decade ago, and how she personally learned a lot about Salish history and culture from her class excursions to the River Honoring. She has now been attending the event with her class for nine years. She stated, "I learned a lot, especially listening to the elders and their stories. I learned a lot that was very instructive and empowering." Another teacher who works in the Flathead Valley and has a class composed entirely of non-Native students, added that as an all-day field trip, attendance at the River Honoring often demands extra adult supervision, and several parents

end up serving as chaperones for the event. As such, "the parents end up being blown away, too, at the value of going. It gives them an exposure that they haven't had either, a really positive, good exposure on the reservation." She offered this comment with some hesitation, and after spending some time struggling to articulate this point, she implied that prior to attending the River Honoring, many of her students' parents had harbored racial prejudices and negative preconceptions of how people lived on the reservation. From this perspective, direct and honest interactions with educators at the event were effective at dismantling unsubstantiated stereotypes. This teacher commended the value of exposing parents and guardians to "stories about a culture of respect and reciprocity."

Accordingly, multiple teachers named positive interactions with *individuals* as the most valuable resource that the River Honoring provides, and as something they desired more of throughout the school year. Five teachers referenced different connections with individual people as the most effective approach to dismantling racial stereotypes and cultural tensions—among students, parents, and other teachers. One teacher from an off-reservation school said,

> We do have stereotypes about everything, so what's cool to me is that these kids get to go to the River Honoring and they get to just see people as people. There are scientists and artists there to talk to them, and these amazing young adults, teenagers, interacting with them, and they got to see them as people, instead of carrying away this idea that everybody wears, you know, regalia, or whatever, or that people on the reservation live all the same way.

Several other teachers expressed similar sentiments not only for their students, but for parents and other community members as well. Another teacher elaborated: "I really feel that people don't have that exposure in our neck of the woods, even though we all live in the same place. It's not what's inside the books, but it's the people that really make an impact—on the kids, and on parents and teachers. Without that exposure, people just stay in their own heads, which is dangerous."

Further enforcing the effectiveness of individual interactions, another teacher from the Flathead Valley added that the single most valuable experience for the teachers at her school—a school comprised almost entirely of non-Native students and faculty—was a professional development session on multicultural education led by Dr. Vernon Finley, Chairman of the Confederated Salish and Kootenai Tribal Council. This particular fourth grade teacher, a strong advocate of place-based cultural education in general, described what a struggle it had been to convince her school to sponsor a talk by Dr. Finley, and how once it happened, most of her colleagues remarked on how much they appreciated their time with him. This single session provided such an encouraging and supportive interaction with an influential tribal representative, that most teachers who attended became empowered to teach certain content that they had previously demonstrated considerable hesitation towards. This teacher gave me the impression that a single interaction with an individual who was open, honest, and supportive, rather than guarded and critical, was all it took to assure some teachers that they were capable of approaching Native cultural content in the classroom with sensitivity and good intentions.

Interestingly, teachers who routinely and determinedly made sure that they taught curricula informed by cultural history and values were also the ones who were most vocal about the frustrating institutional barriers to doing so. One teacher talked about her struggles to convince her colleagues to incorporate Native content into their classrooms: "It's like pulling teeth in some places, about following through with Indian Ed for All." In this way, even if it was perceived as nothing more than a field trip by some teachers, she viewed the River Honoring as an opportunity for some students to be exposed to cultural content they might not otherwise see in the classroom. Another teacher criticized her school district for not providing adequate training for teachers about what Native content they should deliver, and how they should deliver

it. She continued, "Teachers need more training in Indian Ed for All. They need to know, OPI[1] has boatloads of materials, and they keep contributing to it, and it's OPI that's been vetted by the tribes. Don't teach something unless you know it's been vetted by the tribes." These comments hinted at a lack of structural support for teachers who wanted, with the best intentions, to integrate indigenous history, stories, and knowledge into their lessons, but perhaps didn't feel empowered enough to do so.

However, despite perceiving inhibitions in others, four teachers (one Salish, three non-Native) unabashedly proclaimed that students *need* to be exposed to place-based cultural content, and they therefore taught as much of this material as they could, despite sometimes making mistakes. When I asked how teachers approached the idea of delivering content informed by Native cultural values, often to non-Native students, one teacher replied, "For me, it has to be done, therefore it's easy." Another teacher offered an explanation for why she didn't find it difficult to infuse cultural history and values into her classroom:

> It's contextualized. I can relate it back to the natural world, and I think that's one that's really hard to argue with. Our goal is that they have a sense of this place where they are, but in order to have a sense of this place, we have to know who was here before. And so, I think that they just, the two of them just naturally flow together. It just so naturally flows into what we—it's our sense of reciprocity. These kids, every kid in here can talk to you about reciprocity, how you need to give back and do that kind of stuff.

This response fittingly directs the conversation back to the idea of place-based education. In a place such as the Flathead Valley, a place that has a millennia-long history of human interactions with the landscape, one simply cannot talk about the place without implying something about its people. By omitting people from the picture, not only will the picture be inaccurate, but it will also continue to perpetuate the occlusion of a culture that has existed as a part of, and has

[1] Office of Public Instruction

accrued knowledge about, the history and ecology of the place. As another teacher offered, "To me, this is not Indian Ed for All. This is just what's happening in Montana."

There is a difference between feeling ownership over a place and feeling *from* a place. To truly feel from a place, students must *know* that place. Knowing a place implies many things—familiarity, awareness, connection—and regardless of one's own family lineage, it implies an understanding of the spectrum of human stories that have shaped and made sense of the landscape. Therein lies the wisdom that is often lacking from, but surely demanded by, current generations of people who are attempting to make sense of the world they live in. As Germaine White has often explained, there is a difference between cultural specifics and cultural universals. Cultural specifics include those practices and beliefs that are accessible only to people of a specific culture, which others cannot appropriate without something essential being lost from their intrinsic meanings. On the other hand, cultural universals refer to those practices and beliefs that are simply good ways of being in and interacting with the world. I acknowledge that some academics would cringe at any use of the word "good," but I argue that it finds an appropriate home in this context: variations of certain principles exist in multiple cultures around the world because they foster healthy relationships between people, and sustainable relationships between people and places. Respect is one. Reciprocity is one. Stewardship is one. This is not to say that they are the best, nor are they the only principles humans should live by, but they do represent a consensus among various—sometimes even disparate—cultures that there are "good" ways of living. Certainly, these principles are interpreted differently. However, you'd be hard-pressed to find someone of Salish or Euro-American descent who would argue that their culture discourages them from taking care of the land. These are common, universal values, and teachers can expose their students to them effectively through assorted multicultural

media. Multiple such exposures may even be the only way for some students to find a connection—to both their place and to the values that speak to them.

> We have such a brief opportunity to pass on to our children our love for this Earth, and to tell our stories. These are the moments when the world is made whole.
>
> —Richard Louv, *Last Child in the Woods*
>
> You want to remember something, you put it in your heart. If you put it in your head, you'll forget it.
>
> —Pat Pierre, Pend d'Oreille Tribal Elder

STORYTELLING AND PLACE-BASED EDUCATION

In many ways, place-based education offers an antidote to the standardized (and often distant, fragmented, and irrelevant) world of education that many children grow up immersed in. However, in a place like the Flathead Valley, place-based education unearths complications that could otherwise be avoided with more generalizable content. Most teachers, whether they were excited about using the Lower Flathead River materials or not, acknowledged that navigating multicultural education as people of a dominant (and historically oppressive) cultural identity is never a straightforward thing. In this sense, a place-based approach to elementary school lessons, which theoretically, should make learning easier and more accessible to students, is sometimes far more difficult for teachers to navigate. In a place as charged with cultural dualities as the Flathead Valley, place-based education necessarily means acknowledging different ways of knowing, and the different ways in which a spectrum of people have interacted with the landscape.

This is a complicated issue for teachers (especially teachers who are not part of a minority group) to address. A large question remains, how do teachers approach this in a way that is engaging for students, respectful of all cultures involved, and honest about a very nuanced cultural-ecological history? Obviously, there is not a single all-encompassing answer to this

question; different approaches will work for different students in different contexts. However, I will speak here about a recurring theme that emerged in my interviews, one that elicited unexpected responses from students and provided inspiration for multiple teachers: storytelling.

In Chapter Four, "Classroom Culture and Environmental Education," I briefly outlined the River Honoring stations that teachers specifically named as being particularly engaging for their students. Most of those listed were the more active and tactile stations, which is unsurprising given the research that supports experiential learning as one of the more effective approaches to education for younger children. However, there was one unexpected outlier on the list, as seven out of ten teachers emphatically described their students' receptiveness to the elders' station. As a visitor at the 2014 River Honoring, I witnessed this phenomenon myself. After floating from station to station throughout the day, I approached the elders where they comfortably occupied a row of camp chairs arranged in front of their tipi. I happened to arrive at the same time as a fifth grade class that was transitioning—very rambunctiously—from a high-energy relay race. At the time, I was doubtful of their collective ability to be still and attentive immediately following intense physical stimulation. I was astonished at how inaccurate my expectations ended up being.

Seven teachers described a common scenario: their classes would be boisterously moving about, enjoying the freedoms allowed simply by being outside, yet when they reached the elders waiting for them, they fell into a respectful silence that seemed to materialize more from intuition than any instruction from their chaperones. As one teacher remembered, "They have an elder there telling stories, and the kids are so—it's amazing, because you've got kids that are bouncing off the walls half the time, and they sit there and you could hear a pin drop, they're so quiet, listening."

Many teachers who observed this reaction in their students admitted that it was unexpected. Some even expressed a sense of bewilderment at what they had seen, feeling both proud and confused at their students' natural perceptiveness. One teacher confessed that she didn't realize her students had been so engaged listening to the elders until after the River Honoring event, when her fifth grade class reflected on the experience:

> They had to do a drawing of what their favorite thing was and then they had to write out what it was and why it was their favorite thing. And so I'm thinking, "oh, the fire truck's going to win," and hands down, it wasn't. It was sitting there, listening to a group of elders….that was overwhelmingly the favorite thing in the class, and I didn't prompt any of it, and I didn't expect that at all….in their hearts, that's what was important to them.

In a similar vein, after one teacher from an off-reservation school elaborated on the ways in which her class responded to the elders' station at the River Honoring, she began talking about related student experiences she observed throughout the school year. This particular teacher was a strong supporter of the River Honoring, as well as the Lower Flathead River curriculum, and marveled at her fourth graders' interest in the videos of elders speaking on the interactive DVD. Though this was initially surprising to her, she had long since accepted that these stories appeared to be the exception to the "interactive" rule in elementary education. She explained that her students demanded little to no guidance in achieving respectful, attentive stillness during these lessons, which was remarkable for this age group. She then described a time when Louie Adams, a Salish elder, had visited her students during a naturalist-themed outdoor field trip:

> Louie came—Louie Adams came down last year and met with us at Council Grove, and spoke to our kids about the signing of the Hellgate Treaty. And that was after a day of being with the naturalists and doing all that kind of stuff and he just *sat* [emphasis added] with our kids for forty minutes. And I mean, honestly, this will surprise you—I mean, we saw blue herons, we saw everything out there—but their favorite part of the day was Louie, just sitting there talking to them. Truly, how many of them in their journals picked Louie's little talk to them as their favorite part of the day.

Storytelling of the sort that Louie Adams shared with this teacher's fourth grade class is not demanding of students in any tangible way. Similarly, of all the presenters at the River Honoring, the elders' station represents the least physically active. That being said, it is also arguably one of the more *inter*active. In order to fully understand this in a compelling way, I should dissect further the concept of education as "interactive" or "experiential." It is evident from my conversations with teachers and the abundance of research in this area that children generally respond best—physically and intellectually—to lessons that demand a certain level of active engagement. When learning becomes an *experience*, when students *participate* in learning rather than passively receiving information, most of them will be more inclined to understand what they're studying in a more comprehensive way. So what is it about storytelling that achieves this without visible participation from students?

The storytellers referenced in this chapter are elders of the Confederated Salish and Kootenai Tribes, the embodiments of tribal experience, knowledge, and wisdom. Notably, this experience, knowledge, and wisdom is particularly *place-based.* They make use of stories in multiple forms, "from vignettes (snapshots of a place at a particular point in the past), to anecdotes (brief accounts, usually restricted to a few sentences or a short sequence of occurrences), to more elaborate narratives concerning specific events" (Blizard and Schuster 2007:176). These tools are all particularly suited to captivating an audience, whether composed of children or adults. Deborah Slicer states that "a great narrative grabs the reader by the nape and won't let go" (2003:4), emphasizing a quote from Martha Nussbaum's *Love's Knowledge: Essays on Philosophy and Literature* that describes narrative as the only thing that can

> adequately state important truths about the world, embodying them in its shape and setting up in the reader the activities that are appropriate for grasping them….[They are] drawn from the concrete and deeply felt experience of life in

> this world and dedicated to a fine rendering of that life's particularity and complexity (cited in Slicer 2003:2).

When students are offered stories of home from the perspective of someone whose experiences and identity are intimately tied to a singular place, they are given an opportunity to *feel* history and knowledge, rather than simply receiving it as factual data. Who existed here, and what did it feel like when these things happened? What did it mean for people to interact with this place—this ecosystem—in a certain way? What have people learned from experiencing one place over multiple generations? What has changed, what has been gained, and what has been lost? *Why is this important?*

This last question is critical to understanding the importance of storytelling in transmitting knowledge, especially to younger students. I use the word "knowledge" here because knowledge implies an understanding that is far more meaningful than the notion of "information," which is suggestive of data that are objective, universally applicable, and morally indifferent. Information does not provide an answer to the question, "Why is this important?" Stories have the power to captivate listeners with pathos, and in this way, students are allowed to interact emotionally with the narrative. This is a powerful tool that can be employed in many ways, depending on the intentions of the storyteller. At the same time, it is also essential to forging *connection*, whether it be to places, people, or ideas. Accordingly, stories of the kind that are shared by elders at the River Honoring and elsewhere communicate a kind of environmental ethic, in addition to—or perhaps integrated into—place knowledge. These stories provide students with opportunities to understand facets of their home place: its people, its ecology, and its past. In connecting to these stories, students are also exposed to an ethic of interacting with place in a way that is beneficial to the present health and continued integrity of their peopled landscape.

Some might interpret this idea as cultural appropriation, or a romanticized notion of American Indian virtues. However, I don't believe that these stories are indicative of every Salish, Pend d'Oreille, and Kootenai person's cultural choices, nor are they necessarily "cultural specifics," to use Germaine White's term. They are one facet of a culture that has evolved and thrived for many generations, and has endured rapid change and loss over the course of recent colonization. They are laden with values that are instructive for *all* people—in this case, residents of Western Montana and the Flathead Valley—as they attempt to confront current cultural and environmental crises. I return here to Preston's notion of a "vital tradition," and I must reassert that traditions are not valuable simply for having achieved "tradition" status. They are most valuable—and most needed—when they have the capacity to address the demands and dilemmas of the present with wisdom and integrity.

It was evident from the interviews I conducted that most of my participants' students were highly engaged when listening to elders' stories, both in person and on video. It is difficult to say whether this can be attributed to an intuitive respect demanded by the age and experience of the storytellers, the imaginative stimulation and emotional involvement of stories structured in a certain way, or something else altogether. Whatever mechanism is at work here, students are interested. If they're interested, they are more likely to internalize a lasting sense of investment and connection. This should be reason enough to expose students to these storytellers and the stories they're willing to share.

CONCLUSION

As I've already asserted, my goal in pursuing my particular set of research questions was not to provide a sweeping generalization about the effectiveness of place-based education. In fact, the very nature of place-based education defies generalization. Instead, I explored the ways the ways in which teachers approached the River Honoring and the Lower Flathead River curriculum with their classes, drawing from their interviews to form impressions of their perspectives on teaching, environmental education, and cross-cultural communication.

Based on the interviews I conducted, I noticed trends that addressed two of my three initial research questions. Regarding my inquiry into teacher perceptions of the River Honoring and the Flathead River curriculum, I can assert that while there was consensus among all interviewees that the River Honoring event was a positive and effective educational experience, there was a mix of reactions towards the supplementary Lower Flathead River materials. Some teachers felt that the materials were easy to infuse into their classrooms, while others seemed to perceive the inclusion of the materials as burdensome, or difficult to use comprehensively. As such, teachers' use of the Lower Flathead River DVD differed dramatically according to the perceptions illuminated by my first research question.

My second research question aimed to explore how teachers were using the new supplementary Lower Flathead River materials. Though I initially expected the extent to which teachers used these materials to vary according to age and perhaps place of origin, my interviews did not follow any such trends. Rather, the only conclusion I feel comfortable drawing about those who implemented the Lower Flathead River materials comprehensively into their classrooms prior to visiting the River Honoring is that they were the ones who demonstrated

positive attitudes towards place-based education in general. These were the teachers who were already positive supporters of both Native education and place-based, hands-on science. Unsurprisingly, they were the ones who were more inclined to want, as well as understand how, to integrate such materials and to perceive positive student outcomes as a result. According to my interviews, additional support and guidelines for teachers such as teacher trainings, outlines of how specific components of the DVD support Common Core Standards, and an increased presence of tribal representatives in schools, would encourage otherwise reluctant teachers to use the materials available for them.

Though my interviews allowed me to draw some conclusions about my first two questions, this research process has made me wonder if my chosen methodology is truly appropriate for answering the last of my primary research questions: *Is the River Honoring, along with its accompanying educational materials,* effective *at fostering a sense of place connection among students?* I don't believe that the data collected from my interviews are sufficient for me to answer this question confidently. The structure of this study limited my ability to pinpoint any standardized measures of concepts like place connection and environmental ethics in students, concepts that would manifest themselves very differently among varied individuals.

However, having spoken at length with teachers who spend every day with their students, these are the things I *do* feel confident in asserting:

- Most students enjoy participating in the experiential activities offered at the River Honoring.
- Most students seem incredibly engaged while listening to elders telling their stories.

- Most students *want* to know about their natural surroundings, and most students do not want this knowledge to come solely from a textbook.

One question I asked my interviewees was whether or not they thought their students were already familiar with the plants and animals covered by the guides in the Lower Flathead River DVD. Of the ten teachers I interviewed, seven taught fifth grade. Of those seven fifth grade teachers, five were from schools that had been attending the River Honoring for multiple years. Each of those five offered me some version of the following response: *Yes, I think my students were familiar with most of those plants and animals, because they attended the River Honoring as fourth graders.*

I don't think this is a small thing. I think that the students who attend the River Honoring are in the midst of their most impressionable years, and if given the opportunity to engage actively with aspects of their place, they will internalize the lessons fed to them. I think that the River Honoring and its supporting materials exist in a culturally complicated landscape, but that they also harbor the potential for allowing students to thrive. I think that students crave opportunities to feel connected to their place, and to feel empowered to care for it. I think that an increasingly "placeless" world is a threat to both people and their environments, and that the wisdom necessary to confront such a threat can be drawn from the past just as much as, or perhaps even more than, the present or future.

There are multiple options for future research that potentially could expand on these questions that were beyond the scope of this particular project. These might include direct interviews with students, which, given the meticulous approval process required for conducting research with minors, could demand the time allowed by a doctoral dissertation. Another option might include evaluative activities in writing or art that a researcher could implement in

classrooms and subsequently interpret both quantitatively and qualitatively. Again, doctoral research might provide the time, depth, and detail which this option likely could necessitate.

However, I do believe that this preliminary research was sufficient for gaining a baseline understanding of how teachers are approaching the River Honoring with their students, and how they are using the supplementary Lower Flathead River materials in order to frame relevant content in their classrooms. As such, I feel confident in asserting that no teacher feels inclined to diminish the significance of the River Honoring, or the importance behind such educational initiatives. Every teacher I spoke to reflected favorably on the opportunities that the River Honoring presented to their students.

The Flathead Watershed has endured rapid and often crude alterations to its peopled landscapes, and it remains a place that is charged with cultural conflicts and problematic environmental ethics. Yet, it is also home to a strong community of people that recognize these things, and who are making valiant efforts to recover a sense of place that has been lost, or rendered dormant. These efforts include interfacing younger generations with the knowledge and experience of the communities they live amongst, whether it be communities of people or natural landscapes. According to many of the people I spoke with—those teachers who are tasked with reaching thousands of students over the course of their collective careers—it's working.

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