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# Wilderness Restoration: A Case Study of Two Place-based Education Programs

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WILDERNESS RESTORATION:  
A CASE STUDY OF TWO PLACE-BASED EDUCATION PROGRAMS

by

Carolyn Ann Albracht

A DISSERTATION

Presented to the Faculty of  
The Graduate College of the University of Nebraska  
In Partial Fulfillment of Requirements  
For the Degree of Doctor of Philosophy

Major: Education Studies  
(Teaching, Curriculum, and Learning)

Under the Supervision of Professor Edmund T. Hamann

Lincoln, Nebraska

July, 2016

WILDERNESS RESTORATION:  
A CASE STUDY OF TWO PLACE-BASED EDUCATION PROGRAMS

Carolyn Ann Albracht, Ph.D.

University of Nebraska, 2016

Advisor: Edmund T. Hamann

Research regarding outdoor environmental education programs for youth tends to be quantitative in nature, examining cause-and-effect relationships between program content and participants' behavior and attitudes. Some researchers have suggested that programs that help foster an affective connection with nature in its participants may have more lasting and greater impact on participants' pro-environmental behavior and attitudes than those that take a more cognitive approach. In other words, appealing to youth's emotional sensibilities may go further than only teaching facts and skills about how to be better environmental stewards. In order to study these affective connections and how they might be fostered, studies of a qualitative nature are needed. The purpose of this qualitative case study was to explore the pedagogical practices of a non-profit land trust organization in how it plans and conducts two nature-based programs for youth, one for upper elementary aged children and one for adolescents. The organization emphasizes a focus on local culture and ecosystems, thus embracing the term "place-based education" to identify its work. The findings of this study revealed four themes: the generic use of the term "Native Americans" and raising the question of how indigenous cultures should be regarded and integrated into place-based

education; the use of technology to teach about nature and how it can be authentically integrated into nature-based programs to advance the learning goals of such programs; the notion of landscape literacy and developing youths' awareness, appreciation and sense of the aesthetic to accomplish this; and the notion that outdoor education provides youth with "real" experiences and learning opportunities they are not likely to encounter elsewhere. Directions for future research are discussed, including the potential of technology integration with nature-based education programs, and the question of how best to integrate the teaching of indigenous culture as part of place-based education practices.

## **Dedication**

To my husband Wayne whose support, love, and sense of humor enables both of us to survive all my crazy-pants ideas including the pursuit of a doctorate degree.

To my 18-year-old orange yard lion Mechu whose Zen-nature was a constant reminder to prioritize the simple pleasures of life. Rest in peace, my friend.

## **Acknowledgements**

I wish to thank the participants at my research site, especially those involved with planning and implementing the education programs, who graciously allowed me to peer closely at their work, practices and thought processes, and took the time to answer my many questions. For her guidance in starting me on my doctoral studies path and introducing me to the concept “curriculum as aesthetic text,” I wish to thank Margaret Macintyre Latta. For their insight and encouragement, I also wish to thank my dissertation committee: John Raible, Lauren Gatti, and Carolyn Pope Edwards. I especially wish to thank my advisor, Edmund ‘Ted’ Hamann, whose wisdom about teaching, schooling, education, and research have given me much food for thought.

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## **Chapter 1: Issue Identification, Purpose, and Method**

### **Opening Vignette**

I had been there many times before, and many times since, but there is one day that stands out in my memory as pivotal. On a warm and sunny July morning, I stood on the concrete bridge that spanned a channel of the Chienne<sup>1</sup> River, connecting a dead-end county road to an island of private property on the other side. Standing on the bridge, I looked down river, trees lining both banks for as far as the eye could see. Along the south bank of the river, just behind the tree line, was a tall grass prairie, one of the restoration sites managed by the non-profit land trust organization, Wilderness Restoration (WR). It was currently occupied by grazing cows, and some forty-odd elementary school-aged children, their adolescent peer leaders and a half dozen adults, engaged in a variety of educational activities. Some were likely netting insects, while others were looking for various native prairie plants, possibly to press or make art with later that afternoon. While I do not recall the details of the actual activities going on, it is certain that young people were immersed in a natural setting, learning about the land and all the life that it encompasses from direct experience.

I remember that the river was low; it was a dry year. Water quietly flowed over to the left of where I stood, but directly below me the riverbed was dry. To the left of where the thin ribbon of water flowed was a sandbar with an overgrowth of vegetation. Just beyond the sandbar there was a bit more river, and finally the north bank. As I stood on that concrete bridge I watched a dozen or so upper elementary

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<sup>1</sup> All proper names used in this dissertation research are pseudonyms, including

age children digging in the sand of the riverbed below with shovels, hand trowels and their bare hands. I watched as yellow-capped little heads bobbed and moved like little worker bees or ants, focused on their piece of the task, helping to complete the project at hand. A couple of adults stood by, guiding when necessary, but for the most part standing back and letting the children do their work. In the sand, the outline of our state had been drawn, and the children were busy digging the lines that would represent the major rivers in our state. Water was already beginning to come up in some of the “rivers,” giving the children the tangible, hands-on understanding of place that is the hallmark of this summer day camp’s educational approach. The children were clearly immersed, physically and mentally, in the learning that was happening just below me. And I thought to myself, “*This* is what school should be like.”

The scene before me, both the stewarding of land and the stewarding of young minds, was the work of Wilderness Restoration, whose two primary education programs became the focus of my study for this dissertation. That day was etched into my memory long before the seeds for pursuing doctoral studies had been planted in my brain, and even before I had decided to pursue a teaching certificate in K-12 art education—before I joined the ranks of formal educators, those who call themselves “teachers.” At the time, I was an informal art educator, working with Wilderness Restoration as a guest presenter and bus driver.

I tell this story for several reasons. First, it illustrates how important I see this organization’s work. In their own words, “our goal is to relate all aspects of our program to education and service to people - teaching about place, land

stewardship, restoration and sustainable development.” I am not an unbiased participant researcher. I believe one hundred percent in the work that this organization does, especially the work of educating.

Relatedly, the second reason I tell this story is that it also illustrates my own involvement with this organization. I have worked with them for over a decade, although in a peripheral capacity. I was never part of the planning team for the two week-long summer camps designed for upper elementary-aged students, and only began to experience that aspect of their work after I began my research. I was first invited to be a guest presenter and one of the bus drivers in 2004, but as I look back on my experiences, even before my research began, I recognize the impact that their work has had on me personally.

In “teaching about place,” one of the tangible outcomes for many children is that they start camp thinking that insects and getting into lakes and rivers is “icky,” but at the end of the week they leave with no fear of these things. They leave with the joy and excitement that comes from the discovery that these wild places are beautiful and interesting and full of life. Over time, I began to recognize how these experiences affected me—a woman who generally only enjoyed nature from the other side of a pane of glass, and who shuddered at the sight of spiders and wanted them all dead—I now happily walk through the tall grasses of the prairie, knowing that there are spiders and grasshoppers and ticks and all sorts of other critters surrounding me. And I don’t shudder; I breathe it in and immerse myself in the experience.

The third and final reason I tell this story is because it illustrates that my interest in education and schooling developed well before I had decided to become a formal classroom teacher, and now a teacher educator, and long before I came across the term place-based education. It illustrates my intuitive draw to this kind of education. When I discovered the wider field of place-based education, I began to realize how my own teaching and educational philosophy fit with the ideas of this educational approach. I cannot help but think that my involvement with Wilderness Restoration and their summer day camp program had something to do with helping shape my own ideas about teaching and learning. Just as I had learned over time to love being in the prairie, which was a process that happened slowly, sinking into me a little deeper, year after year of being involved, I believe their educational ideas also slowly sank into me, a little deeper every year. I was unaware of the process, until suddenly, I could name this kind of education and recognize how I had been doing this kind of education since I had first become an informal art educator and began working with Wilderness Restoration. What follows is an account of my own immersion into this organization's education programs and what I discovered through a closer examination of what it is that they do, the development of a sense of place.

### **Issue Identification**

The objects of this study were the educational programs conducted by Wilderness Restoration, a non-profit land trust organization, situated in the heart of the Great Plains. The two main programs are Rivers & Prairies (R&P) and Watersheds & Plains (W&P). Rivers & Prairies is a week-long nature day camp for

children who have completed grades third through sixth. The program runs for two weeks, with different groups of children attending each week, during the beginning of July. This study was conducted during its twenty-fourth consecutive year running. Watersheds & Plains is also a week-long program, with only one week currently offered. It is aimed at youth who have completed seventh through twelfth grades, although all fifteen youth who participated during this study were youth who had completed seventh or eighth grade. Watersheds & Plains is a more intensive version of Rivers & Prairies, and is intentionally smaller to allow deeper investigations into nature studies.

Prior to beginning the study reported here, I had conducted a pilot study to assist the organization in remedying some problems with which they were concerned. Six months before this research began, I met with the Rivers & Prairies program coordinator and Wilderness Restoration's executive director to learn more about their concerns. The two primary concerns they had were the peer leaders in the program, and the structure of the program itself. More specifically, there was concern about the job performance of the peer leaders, who are 7<sup>th</sup> through 12<sup>th</sup> grade students hired each summer to supervise a group of five or six children during the week-long program. The planning committee thought they were becoming less capable of handling the responsibilities of leadership than previous generations of peer leaders. They were uncertain of what could or should be done to remedy this issue. The other concern had to do with feeling as though the structure of the program had become too restrictive for the desired goals of getting kids out into nature, but concerned that if they tried to loosen the structure, the children

would not be able to handle themselves well. The two concerns were clearly intertwined, as the skills and capabilities of peer leaders would directly affect the extent to which more open-ended learning activities could be added into the program while still maintaining a certain level of control.

From this research, I found that while the planning team voiced their appreciation and recognition for how important the role of peer leaders were to the Rivers & Prairies program, their actions did not necessarily communicate that to the youth. For example, I had learned that when the program began almost twenty-five years ago, the peer leaders were involved in a two-day intensive training that took them to locations outside the county to do activities like canoeing that helped build their understanding of the natural world, but also served to build community between them and the adults. But, at some point, the two days diminished to one day, and then finally to a half-day. And rather than being involved in activities and building their understanding about the natural world and developing a sense of community, they received several pages of guidelines and were talked to about their responsibilities, with no further guidance and training. It became clear that the issue was not the adolescent peer leaders' capabilities per se, it was that the planning team had allowed their responsibility of more involved training and the building of community and skill-sets in the youth to lapse.

When I presented my findings to the planning team, I suggested that the peer leaders may not realize how important they are to the program, and that the issue might be a result of the youth having no real ownership in the program. In a sense, they had become like middle management, with a goodly amount of responsibility

and no real control or authority. So, I asked the planning team if there was a way to bring the youth into the planning process somehow, and truly get their involvement and investment into the program so that the peer leaders could take ownership. As a result, several of the senior peer leaders were involved with planning during the current research, and the training day was revised to give the youth hands-on experiences (as a result of input from the youth) with some of the sessions that would occur during Rivers & Prairies. This allowed them to better anticipate what to expect, so that they could focus their attention and energy on their small group of campers during the program.

Based on interviews during the current study with both peer leaders and members of the planning team, the results of these changes were clearly perceived as successful. Members of the planning team commented that this was the best group of peer leaders they had seen in several years, and the youth who were interviewed excitedly spoke about how helpful the training day had been, and that being part of the planning process was eye-opening and made them feel like their ideas mattered.

The other concern, that the camp had become too structured, had been examined in the pilot study, but remained unresolved. The possible solutions for this concern, based on a search of the literature at that time, would require the basis of long-term relationships between the adults and youth, more like that in a school setting, and so could not be applied in this situation. Therefore, this concern was still one of the issues I intended to address in the current study. Additionally, the organization will be transitioning to a new education center, so fleshing out the



vision for it was another issue I was interested in pursuing, and have provided this as an appendix to the case study. The primary issue in the current study was to gain a better understanding of Wilderness Restoration's education programs and to add to the literature of place-based education the important work being done by this organization.

### **Purpose of the Study**

As an intrinsic case study, the purpose of the current research was to observe and evaluate two education programs conducted by Wilderness Restoration as the organization transitions with several planning team members retiring and new staff coming aboard. Stake (1995) distinguishes between instrumental and intrinsic cases, the former of which is chosen as representative of a general problem of interest, while the latter is selected "because we need to learn about that particular case" (p. 3).

The organization has also been in a state of transition due to the construction of its education center and the anticipation of more education programs that will be offered once construction is complete. The secondary purpose of this research was to flesh out the organization's vision for the education center and its future educational program offerings.

Wilderness Restoration is currently in a period of transition as it pushes forward with the building of its education center, as changes to the Rivers & Prairies planning team and hence the program itself evolves, and as new programs, such as Watersheds & Plains, continues to be added to its educational offerings. This study aimed to document this continuing transitional phase in the organization's life, with

an eye toward fleshing out the educational vision of the organization. In other words, this study is practice-based research that, among other things, is likely to be used formatively by Wilderness Restoration to improve their programs.

From a broader perspective, this study has significance because it helps to address the gap in the literature that calls for more qualitative studies examining outdoor environmental place-based education programs (Cachelin, Paisley, and Blanchard, 2009). While the literature on nature-based educational programs includes a great deal of quantitative research, a review of the literature shows a paucity of qualitative research in this area. Further, there is emerging evidence on nature-based environmental programs that suggests that developing affective connections with nature may have greater or lasting impact on individuals than taking a more cognitive approach (Ballantyne & Packer, 2002; Payne & Wattchow, 2009). Thus, this research also has significance because it presented an opportunity to examine more closely how these affective connections with nature might be fostered in youth. Last, this study has significance because Wilderness Restoration and its educational programs present a unique case that appears to be unlike others with similar purposes and goals. One indication of their uniqueness is that the Rivers & Prairies program is headed into its twenty-fifth year with virtually the same planning team that started it, along with the addition of several new team members in the past half-decade. It is unusual to find such a long-running program with so many of the original staff members still involved, pursuing essentially the same educational goals with which it began. In my pilot study, the executive director referred to these goals as “Rivers & Prairies Fundamentals,” principles of the

program that remain, regardless of how and what individual activities within the program are conducted.

### **Methodology and Design of the Dissertation Study**

A case study approach was chosen in order to better understand the particularities of Wilderness Restoration's education programs. Because case study is "particularistic, descriptive and heuristic" (Merriam, 2009, p. 43) I was able to focus in on the details of these programs and generate an understanding from the experiences, situations and circumstances that emerged from coming to know all the nuances and interconnections of them. Because case study is a methodology that allows close and detailed examination of a "bounded entity," it was an especially suitable choice to illuminate the aspects of Wilderness Restoration's programs that underlie their foundation and drive the decisions and actions made by the planning team and guest presenters. Further, it allowed me to understand those "outliers" that are often ignored in more quantitatively focused studies. Rather than dismissing data that did not fit the pattern, I was able to investigate these further; case study allowed me to pay attention to any and all individual participant experiences to help me understand the whole of the programs more completely. Using case study allowed me to examine the programs from the view of the planning staff, the youth who participated, their parents, and even community members and others who were involved as guest presenters. Taken together, these multiple perspectives allowed me to create a more complex picture of Wilderness Restoration's education programs.

The pilot study (unpublished, 2014) I conducted revealed insights that informed my continued interest in learning more about how Wilderness Restoration approaches educating youth, and how the youth experience learning in these programs. The current research focused on the central research question:

How does a non-profit land trust organization conduct place-based education programs in natural settings in a rural mid-western community?

Five sub-questions that focused investigation of this central question were:

1. What kind of learning activities does the planning staff create to teach about the local ecosystem?
2. How do the selected locations contribute to place-based education experiences?
3. How does the planning team structure the education programs, and each of the sessions within the programs?
4. What role do various presenters play in advancing the goals of the programs' place-based educational mission?
5. How does the planning staff interact in the process of planning and carrying out the activities of the programs?

### **Data collection and sample selection.**

The current research was carried out with the active collaboration of Wilderness Restoration, which wants formative feedback as it expands and adapts its environmental education programs. I interviewed individuals recommended by the organization, although I was unable to make contact with some of their recommendations. All program participants were alerted about this study when they signed up for the programs and all observations were of planning and program activities. Among other labels, this research can be categorized as program improvement research intended to help facilitators and participants co-create the educational experience closest to Wilderness Restoration's educational mission. I doubled as a participant observer with Rivers & Prairies and interacted with

elementary students as part of the duties of assisting with the program. This part of the research overlaps with action research and self-study.

The planning team, as well as invited guest presenters, facilitated the activities for Rivers & Prairies. Four Wilderness Restoration staff and 3 guest presenters facilitated the activities for Watersheds & Plains. Locations of program activities varied, but were primarily at several outdoor locations in and around the county where Wilderness Restoration is based, as well as indoor locations at the local middle school and the organization's new education center. Planning meetings took place at Wilderness Restoration's office.

Selection of the case and participants was both purposeful and convenient (Creswell, 2013, p. 156-57). Participants in the study included 8 adults who plan and facilitate the Rivers & Prairies and the Watersheds & Plains programs; 9 additional adults who participated as guest presenters, community members or parents; 105 elementary age participants who attended one of two weeks of Rivers & Prairies; 24 adolescent youth who served as small group leaders (peer leaders) for Rivers & Prairies; and 15 youth who participated in the Watersheds & Plains program.

Semi-structured interviews were conducted with Wilderness Restoration staff and other members of the planning team after the programs were completed. Three adolescents in Watersheds & Plains were selected to participate in a group interview. Four adolescent peer leaders from the Rivers and Prairies program participated in a separate group interview. No elementary students were interviewed or asked to participate in the study beyond being observed. I conducted

a total of 17 interviews: 8 staff members involved in program planning and implementation; 4 adolescent youth who were peer leaders for the R&P program; 3 adolescent youth who were both peer leaders in the R&P program and participants in the W&P program; 2 parents of campers; 3 parents who were also guest presenters for the R&P program; and 4 guest presenters.

The interview questions developed were based on lines of inquiry uncovered from the pilot study, as well as more general interests developed through further investigation of place-based education. Questions were primarily descriptive (Spradley, 1979) and designed to elicit broad information from interviewees about the programs, rather than being too pointed and specific about certain issues. The rationale for this was that by allowing individuals to talk about the program in general terms I would be able to get at some of the underlying information that could be helpful in evaluating the programs and ultimately making recommendations. The interview protocol and specific questions for each kind of interviewee (parent, guest presenter, peer leader, planning team member) are included in Appendix B.

I also collected data by being a participant observer during 3 one-hour planning meetings and during the three weeks of programming, taking extensive field notes. Additionally, I collected data from communication such as emails and publications created by the organization, as well as journal entries made by participants in the Watersheds & Plains program as part of regular program activities.

Finally, I collected visual data using photos (Creswell, 2013, p. 161), a tool that has been used in other studies of nature-based programs with success (Ardoin et al., 2014; Smith et al., 2010). I used both my own photographs and those taken by youth in the Watersheds & Plains program. Youth in this program were asked to photograph anything that interested them while out in the field or participating in various program activities, and to write about their experiences in a journal as part of the program activities. This allowed me to draw out a greater depth of information about the program, increasing my ability to provide rich, thick description. For the purposes of analysis, photo data allowed an additional source for finding correspondence. Youth brought their own camera, or were provided with one if they did not have their own.

#### **Coding and analyzing data.**

For the purposes of coding and analyzing data, I treated the two programs as one case, Wilderness Restoration education programs, due to the fact that several of the participants I interviewed were involved in both and their responses reflected a view of the programs as such. I conducted an analysis of the data by coding and developing themes from interview transcripts, observation data (field notes), and participants' journals from the Watersheds & Plains program. I searched for patterns through "direct interpretation" by concentrating "on the instance, trying to pull it apart and put it back together again more meaningfully" (Stake, 1995, p. 75). Once themes were identified through textual data, I looked for corresponding instances of the themes in the photographs taken by Watersheds & Plains participants and myself. Additionally, I had access to emails, newsletters, and

publications dating back to the beginning of the Rivers & Prairies programs. Finally, assertions and generalizations were made.

I chose to code by hand, without the assistance of any computer software programs. My preference as a qualitative researcher is not to put distance between myself, as the primary instrument, and the data (Creswell, 2013, p. 202). However, during the coding process as I noticed some words having greater frequency, I used Microsoft Word to count specific words within each of the transcripts, field notes and participants' journal entries. I have included greater detail about the specifics of my coding and analyzing process in the discussion of the four themes in chapter four. The four themes are: "Native Americans"; Technology; Landscape Literacy Through Aesthetics, Appreciation and Awareness; and Outdoor Education is "Real" Education and Opportunity.

I employed member checking (Stake, 1995, p. 115) with four key participants (Wilderness Restoration's executive director, the Rivers & Prairies program coordinator, the Watersheds & Plains program coordinator, and a Rivers & Prairies planning team member who also presented a session at Watersheds & Plains) to ensure that the themes resonated with their perceptions. Additionally, to ensure validity, I used negative case analysis (Creswell, 2013, p.251), noting contradictory data not supporting the general findings.

### **Limitations of the Dissertation Study**

Research concerning nature-based programs tends to focus on program evaluation using primarily quantitative measures. This research often examines program effects on environmental knowledge (Erdogan, 2011; Larson, Castleberry,



& Green, 2010; Manoli, Johnson, Hadjichambis, Hadjichambi, Georgiou, & Ioannou, 2014) and whether or not greater awareness leads to more pro-environmental behavior (Ballantyne & Packer, 2002; Manoli et al., 2014; Zint, Kraemer, & Kolenic, 2014). For example, Larson et al. (2010) examined the effects of a one-week environmental education program on children's eco-affinity, eco-awareness and environmental knowledge and found that informal environmental education programs may be ideal for stimulating positive environmental orientations in all students, regardless of age, gender or ethnicity. Another example comes from Erdogan (2011) who examined the effect of a 12-day nature-based education program on the environmental knowledge, affect and responsible behavior of elementary students in Ankara, Turkey and found that the program had a significant effect on students' responsible behavior toward the environment, as indicated by a more eco-centric, rather than ego-centric, view of the environment.

While quantitative measures are important, qualitative measures that help clarify and illuminate the connections between affect and pro-environmental behavior are not well covered in the existing literature. Cachelin et al. (2009) conducted a mixed-methods pilot study to examine the cognitive and affective effects of an environmental education program, Wings and Water, on fourth graders in Utah. Half the participants in the study learned about wetlands out in the field, while the other half did so in the classroom. The results showed, "Field-based participants were the only groups to express sentiments about conservation, wanting to return, being happy about themselves and feeling safe [while] classroom-based participants were the only ones to express negative feelings" (p. 6).

Their study makes an important point about the need for more qualitative studies to learn about the emotional aspects that connect to the desire to promote and conserve the environment.

Although this dissertation study is largely program evaluation, it also adds to the growing body of literature on qualitative research involving informal place-based education programs. Where much of the quantitative research is concerned with cause-and-effect type questions that examine common or frequent behaviors and situations that lead to more pro-environmental dispositions, this study presented an opportunity to more closely examine the affective connections with nature that some researchers (Ballantyne and Packer, 2002; Payne and Wattchow, 2009) have suggested are necessary for creating the greatest impact in generating sustained interest in caring for the natural world.

### **Researcher positioning.**

My own involvement with the Rivers & Prairies program has been peripheral, but began ten years ago in the summer of 2004 when I was asked to be a guest presenter, and to drive one of the buses that transports children from site to site. I remained a bus driver for eight years of the program, and have continued to assist with various sessions each year. However, I have not been part of the primary planning team. Clearly, I am not an unbiased observer; I consider myself a fan and cheerleader of the organization and its programs, however, because of my peripheral involvement over the years, I felt I could offer a semi-outsider perspective to assess some trouble spots over which the organization's executive director and the Rivers & Prairies program coordinator expressed concern.

During the Watersheds & Plains program, my role was primarily nonparticipant/observer as participant (Creswell, 2013, p. 167), recording as much as I could about what I saw, heard and experienced. While I had experienced Rivers & Prairies for many years, this was my first opportunity to see this newer program up close and personal. The Wilderness Restoration staff member who had initiated and directed the program was particularly glad that I would be accompanying them on the overnight camping trip since there were twice as many girls as boys, and she felt that having another female adult would be beneficial. So, my role in that program was viewed as having potential to be more than an observer, but in the end, my role remained solidly researcher and the need to be any more than that never transpired.

My role in the Rivers & Prairies program was complete participant (Creswell, 2013, p. 167), in which I was fully engaged with the planning team and the campers participating in the program, giving input at the planning meetings and presenting during the program with two art sessions, much as I had done in the past. Being part of the planning committee was a new experience for me, however.

### **Philosophical assumptions of the researcher.**

In terms of philosophical positioning, I primarily take an interpretive or constructivist approach (Merriam, 2009). From this perspective, reality is multiple; it is experienced differently by every single person and is constructed by the interaction between individual people. Therefore, there is not just one truth out there to be discovered, there are multiple truths and reality must be constructed from various viewpoints. This is what I sought in interviewing a variety of

individuals with varying degrees of involvement with Wilderness Restoration's education programs. Neuman (2011) states, "Capturing people's subjective sense of reality to really understand social life is crucial" (p. 102). From this perspective it is not enough to ask whether Wilderness Restoration's education programs are having a desired effect on people's behavior, but in order to create the kinds of experiences that will encourage behaviors such as environmental stewardship, one must understand people's "subjective sense of reality." Without understanding how various individuals experience the world, and given that environmental stewardship must be a social, not solitary, act, I have taken the perspective of interpretive researcher in order to truly understand the impact of these nature-based education programs. Because various participants have experienced these programs differently from one another, even if only slightly, the view that "multiple interpretations of human experience, or realities, are possible" (Neuman, 2011, p. 103) that is embraced by interpretive researchers is necessary for a complete understanding of Wilderness Restoration's educational work.

Additionally, critical theory also lends value to my research in terms of asking about the place of indigenous cultures in the educational programs that Wilderness Restoration conducts. Like interpretive and constructionist views, a critical perspective also values multiple realities, so these philosophical perspectives are compatible. However, critical theory adds a political, social and cultural context to the research where one view is privileged (Merriam, 2009, p. 11). Deliberately taking a critical view forces me to ask questions about Wilderness Restoration's education programs that might be tempting to overlook as one who

unapologetically promotes their work. While I had concerns about looking at their education programs critically when I conducted my pilot study, my belief that they could handle the truth, so to speak, were confirmed when they received my findings about peer leaders. Though it was thought the youth who were filling that role somehow lacked the qualities and capabilities of previous peer leaders, when it was understood that it was more likely due to a lack of training and support on the staff's part, they embraced the idea of making changes rather than being defensive. Likewise, taking a critical look at how indigenous cultures are addressed in their programs has been met with openness.

### **Overview of Dissertation Chapters**

Chapter 2 provides an extensive narrative description of Wilderness Restoration's two primary education programs, further defining the case and its context. Chapter 3 gives a detailed description of both the emic and etic issues that developed out of researching the case, along with situating the case and these issues within the literature of outdoor environmental place-based education. Chapter 4 provides the descriptive detail, documentation, quotations and data triangulation to satisfy my "ethical obligations to minimize misrepresentation and misunderstanding" (Stake, 1995, p. 109). Chapter 5 presents the assertions I have made about Wilderness Restoration and their educational work. Chapter 6 includes my conclusions about Wilderness Restoration's educational work and discusses two potential directions for research: the use of technology in outdoor environmental education, and scholarly perspectives on how to integrate indigenous culture into educating about place. Finally, as an aspect of program evaluation and

recommendations, Appendix A fleshes out a vision for the organization's education center programming to assist them as they move forward in their mission of "creating opportunities on the land for people of all ages."<sup>2</sup>

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<sup>2</sup> This is quoted from a Wilderness Restoration publication.

## **Chapter 2: Description of the Case**

To understand a particular place, a particular program, case study is an appropriate methodological choice. It is “particularistic, descriptive and heuristic” (Merriam, 2009, p. 43). As such, I was able to focus in on the details of Wilderness Restoration’s two primary education programs and generate understanding from the experiences, situations and circumstances that emerged from coming to know the many nuances and interconnections of each. Because case study is a methodology that allows close and detailed examination of a “bounded entity,” it is especially suitable to illuminating the aspects of the Rivers & Prairies and the Watersheds & Plains programs that underlie their foundations and drive the decisions and actions made by those who create and implement them. Further, a case study approach allowed me to understand the “outliers” that tend to be ignored in more quantitatively focused studies. For example, as I began to see patterns emerge regarding the description of the education programs from various perspectives, when a view did not fit the pattern, I could investigate it further to help clarify the pattern I was seeing, rather than dismiss the difference in perspective as merely an anomaly. Doing so strengthened the picture I was developing as one that more accurately reflects multiple perspectives. Following an interpretive/constructivist approach that values multiple realities, case study allowed me to ask how the various participants involved in Wilderness Restoration’s education programs view and experience them. By researching Wilderness Restoration’s education programs as a case study, I was able to examine the various factors that contribute to their creation from the view of the planning

staff, the guest presenters, the youth who participated, and several parents. Taken together, these multiple perspectives created a more complex picture of Wilderness Restoration's two primary education programs.

### **Rivers & Prairies Program**

The planning team for the Rivers & Prairies program meets roughly once a month, beginning in January, to plan activities for the two weeks of camp. The team includes five Wilderness Restoration staff and three teachers from area school districts. The program accommodates as many as sixty elementary-aged youth each week, which requires the assistance of twelve adolescent peer leaders to help manage the children. Following is an introduction to the individuals on the planning team, and a description of the role of peer leaders.

#### **Wilderness Restoration staff/ Rivers & Prairies planning staff.**

Wilderness Restoration is a non-profit educational land trust organization founded in 1980. They are based in a rural farming community in the Great Plains, where socially and politically conservative viewpoints tend to dominate the socio-cultural climate, the vast majority of the people subscribe to a range of Protestant or Catholic Christian religious beliefs, and the county population remains under 10,000 people.

Wilderness Restoration encompasses a staff of six who work together to manage seven prairie preserves around the state in which they are situated. They consult with landowners and agencies regarding high-diversity prairie restoration. They also conduct a number of educational programs, the primary ones being Rivers & Prairies and Watersheds & Plains.



Wade is the executive director of Wilderness Restoration and one of the founding members of the Rivers & Prairies program. He was born and raised in the community, and is involved with planning and leading sessions during both R&P and Watersheds & Plains. As a founding member of the R&P program, one of his primary roles involves understanding the natural places that they would eventually use as the sites for the program. This role is critical because the program that was developed could not be written down and implemented by just anyone, anywhere. Intimate knowledge of the places is essential.

Winona is the publications editor for Wilderness Restoration, and is the coordinator of R&P. Although not a founding member of R&P, she assisted with the first year of the program, acting as its videographer. As the coordinator of the program she oversees its organization, creates a skeleton of activities that is then fleshed out with input from the rest of the planning team, contacts guest presenters, and takes care of many of the scheduling details.

Betty joined WR five years ago as the greenhouse manager and restoration assistant. She coordinates the Watersheds & Plains program, which she initiated three years ago, and assists in planning and leading activities for the Rivers & Prairies Program. During the present research, her primary sessions included nature photography and ethnobotany.

Gordon, who like Wade grew up in the community, also joined WR five years ago as the organization's land steward and restoration assistant. He is responsible for the upkeep of their properties, including control of weed trees, fence repair, grazing cattle, prescribed burning, and assisting with seed collection and planting

projects. He assists with both education programs, although he generally does not lead sessions. He takes more of a behind-the-scenes role, making sure that equipment is in place, for example, so that the programs can run smoothly.

Jessica is the administrative director for WR, and plays the role of emcee and overall gofer for the Rivers & Prairies program. She conducts introductions in the morning, keeps the schedule throughout the day, acts as the camp's official photographer, deals with camper discipline, and runs the peer leader debriefing sessions at the end of each camp day.

#### **Non-Wilderness Restoration staff / Rivers & Prairies planning staff.**

In addition to five of Wilderness Restoration's staff, there are three teachers (Steve, Wilma, and Elaine) from local school districts currently involved in planning the Rivers & Prairies program. A fourth teacher, Richard, was formerly part of the planning team, but for the past three years has been involved as a guest presenter.

Steve is a middle school life science teacher and is one of the original members of the R&P planning team. He helps with planning the overall schedule for the program, and leads sessions that are related to life sciences, such as aquatic netting.

Wilma is a fifth grade teacher and has worked with the R&P program since its first year. However, she was a volunteer the first year, and then joined the planning team the second year. As the sole elementary teacher on the team, she brings the expertise of understanding the developmental level of the campers and takes the lead on guiding the team toward planning activities that are best suited for their age and interests. She is also known as the "Book Woman" because of her love

for children's literature, which is always incorporated into the camp schedule after lunch. Her role on the planning team tends to lean toward literature, writing and art activities.

Elaine is a middle school science teacher who began volunteering for R&P eight years ago, and officially joined the planning team a year ago. During the present research she led a session on amphibians and engaged campers in a citizen scientist project in which they collected data to test for chytridiomycosis, a fungal infection which is wiping out frog populations all over the world.

Richard is a retired middle school teacher of social studies and history, and one of the original members of the R&P planning team. He remained on the planning team until three years ago, and since that time has returned each summer as a guest presenter. As a social studies and history teacher, his role in R&P had been to take the lead on the "heritage day," which is the program's focus on local history. During the present research, Richard led a session in which he enlisted the aid of peer leaders to put on a melodrama he had written about the pioneers from the area.

### **Peer leaders.**

Each year, twenty-four adolescent youth are hired to serve as peer leaders of five or six campers each. Twelve are involved each week of the camp. Their role is essential to the success of the program and for everything to run smoothly. Their primary function is safety; to keep sixty children safe in the field, many eyes are necessary. Peer leaders are responsible for making sure their campers are at the correct session at the correct time, a task that would be a logistical nightmare for the staff without the presence and assistance of the peer leaders. The importance of

their role was noted by one parent, who stated, “I think that’s your number one make or break is that peer leader, you know and if you’ve got a good one, you’re going to have great week. If you’ve got a bad one, you’re going to have a bad week regardless of all the other stuff you’ve done. I think that is the key to the whole week.” Keeping campers safe, keeping them on task, and ensuring a positive social experience for campers are peer leaders’ main responsibilities.

Each year, Wilderness Restoration solicits applications from youth for the position of peer leader. During one of the planning meetings the staff look at all the applications and talk about the strengths of each applicant. The selection process is fairly informal, but like the planning of the camp itself, the decisions are made by all the staff coming to a consensus and making their determinations together. Most of the applicants are former campers, or are known by the teachers on the planning team. While particular interest in the outdoors is viewed as a plus, the first thing the planning team looks for is whether they believe the applicant likes working with children and can be responsible with them. As Winona explained it,

The number one quality that we look for is someone who is going to be responsible with children, who is not going to be overly social about it with their peers, with the other peer leaders, that their reason for being there is that they are a leader to those five children. And it helps if they have that knowledge of nature, and how to be in nature, to help us convey that to them, but primarily we want someone who is responsible, who will be there on time, who will do their job and not be off somewhere else when their kids are somewhere else, stick with the kids and do the job.

Supporting that view of the peer leaders’ role, the peer leaders themselves had an interesting way of depicting their job description: “You don’t want to be a mom, but you don’t want to be a kid either. Be like, fun babysitter.” What does “fun babysitter”

mean? It means “they’ll do things with you. They won’t just stand there and watch or tell you what to do. They show you what to do.” Peer leaders are responsible like a good babysitter, but they are also attentive to and get involved with the children like a good babysitter.

To assist peer leaders in understanding their responsibilities, a training session is held sometime during the week before the first week of Rivers & Prairies begins. During the present research four of the senior peer leaders were invited to attend and participate in one of the planning sessions, a decision that was made by the planning team after I had presented the findings of my pilot study. I told the team that I had found that while the planning team consistently voiced how important the peer leaders were to the success of the program, they did not seem to communicate this to the youth. One indication of this was in learning that the peer leader training sessions had been two-day outdoor education events when the program first started, and in recent years had diminished to half-day gatherings in which peer leaders were mostly talked at about their responsibilities. I suggested that they consider how they might bring peer leaders into the process so that the youth felt more personally invested in the program. As a result of bringing four peer leaders into the planning process, the training day took on a different format during this research than it had in recent years.

First, it was extended to a full day, morning and afternoon, rather than only a morning session. At the suggestion of the peer leaders who attended the planning meeting, the peer leaders experienced some of the hands-on sessions, particularly the art-making ones, instead of only being told about them. Having this hands-on

experience allowed them to have a better understanding of what was going on in each of the sessions during camp so that they could give their full attention to their campers and not have to worry about missing some of the instructions. This also enabled them to better help their campers with the projects. Another change that was implemented was that we traveled to several of the sites where knowing the terrain ahead of time would be beneficial, especially for the new peer leaders. Even though many of them had been to the sites as campers, knowing the terrain and where the sessions would likely be set up, helped them to anticipate how to navigate the areas and get their campers to where they needed to be. The changes made to the training day resulting in peer leaders that were better prepared were confirmed through passing comments made by the staff, who marveled at how great the peer leaders were during the present research, as well as by the senior peer leaders I interviewed. One peer leader's response was particularly positive:

I loved the training day. It helped me prepare. I'm not very artsy, so that was great to be able to see the stick weaving and actually work on my own stick weaving, and be like, okay, this works to start it, and this is how you tie it at the end, and... 'cause I probably would've had a lot more—it would've been a lot more harder for me to do that, just learning with the campers. So I feel like this training day this year was so much better than all the other years. I actually felt like I knew what was going to happen, and yeah. It wasn't as stressful.

### **Rivers & Prairies program activities and schedule.**

During this dissertation research the Rivers & Prairies program was in its twenty-fourth year. The nature day camp, geared toward 3<sup>rd</sup>-6<sup>th</sup> graders, takes place in early July for two weeks. Each week, a different group of approximately 60 campers is introduced to several field sites “to discover the great diversity of life

that exists just beyond their own back yards.”<sup>3</sup> During the current research, the second week was under capacity, however, with just 46 campers.

What is the R&P program about? From one of the earliest documentations of the program, a description of it states, “It’s about rivers. It’s about prairies. It’s about life’s diversity. It’s about discovering interesting details. It’s about seeing the whole. It’s about learning about one’s self, home, landscape, friends, and community.” As I interviewed Wade for the pilot study, it became clear that the roots of the program had a strong aesthetic undercurrent; they wanted to introduce youth in the community to the beauty of the local landscape through all their senses—visual, tactile, auditory, olfactory and gustatory. In an interview with Wade during the current research, he reiterated the emphasis on aesthetic experience as the impetus for WR’s educational mission, particularly with the R&P program:

We started out with the idea that we wanted to do education. We wanted to tie it on a local basis to land. So the education would be all ages, many interests and disciplines, from kids to people that own land, dealing with management, dealing with natural history. Just natural resource understanding and awareness. Very quickly, as things started to evolve, it became intertwined with, and specifically with R&P, the idea of the beauty and the aesthetic aspects were really fundamental to how we viewed education. You can’t take people to an ugly place. You can, but for the most part the places that are best have a certain beauty and reality to them. You can teach anywhere, but those are the places that are—they lend themselves to multi-faceted education.

The intention of the program was about more than outdoor education; the program was intended to be much more holistic and interdisciplinary than simply a focus on biology and earth science, and nearly twenty-five years later, it remains so. Wilma’s description of the program is one example that confirms this:

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<sup>3</sup> This is quoted from a Wilderness Restoration publication.

Its mission is to teach kids about the place, the love of place.... The love of the land, the love of the people, the love of the history. It's cross-curricular. One of the things I love about it is it's not just science. It's history. It's occasionally math, definitely arts and sometimes writing, the literature component that we have every day. Yeah, I think teaching them about their place and how to be good stewards of the land wherever they're from.

Reading these two perspectives of the program, one from a founding member and one from a teacher who has been on the planning team since its second year, one gains the understanding that while the intellectual knowledge that children develop about the places they visit just beyond their own backyards is important, it is really the emotional impact they experience that drives the mission of the program. The planning team has understood from the very beginning that to develop appreciation for the land they must hook children on an emotional level, just as Cachelin et al. (2009) surmised from their study with fourth graders in Utah. If youth learn to love their place, if they come to realize it is *their* place to love, the care and concern for preserving it will follow.

### **A typical Rivers & Prairies day?**

What is a typical Rivers & Prairies day like? Is there such a thing? Certainly the format or structure of each day bears similarities. Each morning campers, peer leaders and staff gather at the local middle school, where Jessica gets everyone going with announcements and enthusiastic quips. For example, she boisterously says, "Good morning R&P campers!" To which the campers yell back an enthusiastic "Good morning!" And if she decides the response is not energetic enough, she will say, "Com'on guys. I said good morning!" This time more loudly and boisterously than the first. Once the morning announcements and reminders are done, Jessica



dismisses the campers and their peer leaders by hat color to board the bus, and staff follow, dividing themselves between the two busses, or getting into other vehicles to transport equipment and the Port-o-johns.

Mornings are typically spent at a field site somewhere in or near the county. Locations change from year to year, but some sites are visited every year. During the present research, we visited several of WR's restoration management sites. Each field site is introduced by spending one minute standing silently, known as the "silent minute," as a way to focus youths' senses to the sounds and sights of a particular location, followed by campers moving through a variety of sessions where they engage in hands-on, experiential learning of the natural world. After spending the morning at field sites we return to the school in the afternoon where campers change out of their mucky, wet clothes on the days that involve getting into the water or getting exceptionally dirty. At the school, they listen to a story selected and read by Wilma, and then disperse to several afternoon sessions that are designed to extend their learning from the morning sessions, but that are better suited to the indoor classroom, such as looking at specimens under the microscope that they caught in the river or wetland areas in the morning.

On Monday we visited one of the county recreational parks, Roper Park, about 20 miles northwest of town, which is situated along the Chienne River. The location offers camping facilities; a pond for swimming, kayaking, canoeing and the like; a system of hiking and horse trails; and access to the river. The program sessions that took place at Roper included a river hike, dip netting, creating a group

assemblage with natural materials, netting insects in the prairie, and learning about the ecology of a rotting log.

Tuesday was heritage day, where an emphasis on local history took us to an historic country cemetery about 20 miles southeast of town. Buried in the cemetery are a number of Civil War veterans and early European settlers to the area. At one time there was a township near the cemetery, but it is now all that remains as evidence of the lives that once existed there. The site is a favorite because, as Wade explained, "it was secluded and different, exotic." There, campers participated in sessions that included learning about the lives of several people buried there, and learning about leaves of the various trees in and around the cemetery.

Wednesday we went to Hansen Prairie, WR's main restoration site, and location of the organization's education center. It is about 15 miles north of town, and five miles east of Roper Park. However, Wednesday's structure was opposite that of the other days because it was one of their night sessions, which they do every other year. So, on Wednesday we met at the middle school at 3:30pm and did several sessions before heading out to the field site at 6:20pm. The sessions in the afternoon at the school included a presentation about raptors given by two wildlife rehabilitators that brought in live specimens; an interactive game about frogs that simulated the cycle of prey, predators and environmental factors; an introduction to nature photography by Betty; and an introduction to astronomy by a guest presenter in anticipation of star gazing later that evening at the field site. The field site, Hansen Prairie, has a topography that includes loess hills and sits along a channel of the Chienne River. Cows graze on the property and so it is always a good

idea to watch one's step when walking the trails. There, campers engaged in a session about amphibians, and one on nature photography. They also got to roast marshmallows by a campfire, sing songs, and read Native American stories under the night sky. The plan had been to look at the stars through telescopes, but it ended up being too overcast both weeks.

Thursday morning we took a short bus ride across town to visit WR's first restoration site, a small area along Nixon Creek. The property had been slated to become a trailer park in the early 1980s when Wilderness Restoration stepped in and proposed to the city that they would clean it up and restore it to native prairie. The site also connected to the town's hike-bike trail, known as Nixon Creek Trail. The sessions at this site included learning about native plants and their medicinal and other properties, playing games based on those played by indigenous cultures, and doing a photo scavenger hunt along the trail.

Friday is known as "River Day"; it does not quite follow the same format as the other days. As with the other days, we headed out to the river shortly after meeting at the middle school, but as the culminating event, campers do not stay around in the afternoon for sessions at the middle school as they do the other days of the program. This year River Day took place in the Chienne River, south of the recreational park we visited on Monday, but accessed through private property. There is usually an all-group session with a guest presenter to start the field site visit. This year a herpetologist from one of the state's universities gave a presentation on turtles the first week, but was unable to return for the second week. Fortunately, a fairly good-sized female snapping turtle was found the second week

during activities and games in the river, and so the campers got an impromptu herpetology session anyway.

### **Open house event for families.**

At the end of the afternoon sessions on Thursday is when the open house for parents and families takes place. This event has been pared down over the years; initially it was a two-hour event including a meal and performances in the evening that was very much adult-led; now it is about a 45-minute event that takes place immediately after the afternoon sessions end, in which campers are encouraged to show their parents and families their artwork and other products made during the week, and to show them specimens under the microscope at the Microbe Show. This pared-down version is much more child-led than the previous versions.

Most of the staff believe it's a better way to conduct the open house as it reflects the realities of everyone's busy lives, but there's also some question as to whether something is lost in doing it this way. For example, one of the guest presenters (who is also a parent of one camper and a peer leader) discussed one downside being that WR does not do any promotion of the organization that allows parents to understand who they are. Previously, when the open house was a longer event, Wade used that opportunity to explain the greater mission of Wilderness Restoration and to share their other work with a captive audience. With the current format, they have not kept that part of it. This guest presenter suggested a simple solution:

It would be smart for WR to have something set up there just talking about WR, you know. Even if it's just between the commons and the microscopes, have a table where somebody from WR is sitting there talking about, here's what we do, you know. We've done ten thousand

acres of prairie restoration, here's all the accomplishments we have, that might be something smart to do.

Another view of something being lost in this pared down version came from Elaine.

While the guest presenter expressed the loss of promoting the greater mission of WR to parents, Elaine felt there was a loss of opportunity for connection with families.

We used to have a sit-down, where we—here's all the peer leaders, and here's the—here's some songs that we did. So, I know it's tougher to do it that way, and we're all ready to go home, but I do feel like we lose that family connection piece. We just kind of throw it in there at the end of the day. And I don't like coming back at seven [o'clock]. But I really feel that we kind of lose out on that...the families coming back and really listening to their kids.

However, some of the loss that Elaine was seeing was just the opposite of what one of the volunteer/guest presenters was seeing. He had been a camper himself and remembered how much he enjoyed the open house for families in the evening. But as an adult he marveled at how much work that must have been for the planning staff. He shared these thoughts:

I think it might actually might be even better because parents show up, and now the kid is going, here, come over here and look at this, come here, so instead of us trying to serve up a thing to them, it's the kids leading the parents around, which is probably more beneficial anyways.

From his perspective, he saw the child-led aspect as beneficial. Unlike Elaine, he did not see the campers as trying to get out of there as quickly as possible, but rather that it gave them an opportunity to tell their parents and families about what they had been doing all week, thus creating an opportunity for them to really own their experience and to share it, instead of the staff doing it for them.

**River Day.**

Although briefly described above, River Day is such a significant part of the R&P program that it requires further description. It is the big event (or as one peer leader described it, the “grand prize”) at the end of the week that everyone, campers and staff alike, look forward to most. Generally there is first a whole-group presentation given by a guest presenter when we arrive at the field site. This year it was a session about turtles; previous years have included sessions about birds, snakes, amphibians and others. This presentation time generally allows the staff to get the games and activities in the river set up, and helps to bring a more formal education opportunity to the day.

Once the whole group session is finished, the campers are divided into four groups so that they can rotate through the four river sessions. Each session lasts about 30 minutes, and after the first two there is a snack break. After the last session, everyone gathers together again for a final hurrah in the river. Two of the four sessions this year were games, one called River Ball and the other Raindrop Relay. River Ball is akin to kick ball, but instead of running around three bases, there is a stick down river that the kicker must run to and around, and then back to the starting point, before the other team retrieves the ball, lines up and passes the ball over head and under legs alternately from person to person. Raindrop Relay uses the idea of the water cycle to create four stops on an obstacle course, which each team runs and tries for the fastest time. A third session was purely recreational in which campers walked to a point upriver and then floated on inner tubes back to the start. The fourth session was aquatic netting, or Fish Find. The last ten minutes of

Fish Find involved Wade gathering the campers around to pour their buckets out so that they could look at what they had found. Wade talked to them about various fish and other aquatic life, keeping only the most interesting specimens in a bucket to share with the whole group at the very end of River Day.

Once campers have gone through all four sessions, everyone gathers at a location in the river that is shallow enough to only cover the feet. The campers line up in two rows, creating a kind of aisle between them so that when the fish and other aquatic life are released they can swim between the campers, giving the children one last chance to see them before they disappear down river. Wade and Betty show the best specimens that have been saved from Fish Find, usually talking briefly about each one, and walking them around in hand or in the bucket for a closer look. Once the last catch is released, the campers and their peer leaders are guided by one of the staff to form an oval, and on the count of three they do a lap-sit. Usually, somebody falls almost immediately, but sometimes the whole group manages to stay seated on the lap of the person behind them for a couple of seconds. By this point in the day, everyone is thoroughly soaked, and so falling into the river is joyful and exciting for most of the campers. As one camper commented, "You gotta get as wet as you can. That's what River Day is for."

One of the goals that WR has for its education programs in general, and with Rivers & Prairies in particular, is to develop an appreciation and awareness in others of the recreational opportunities afforded at these local outdoor places. In fostering this appreciation and awareness, there is an unstated message that there are right ways to recreate, and there are wrong ways to recreate. For example, it is

not uncommon for some people to drive motorized vehicles, such as four-wheelers, in the riverbed when the water is low. Not surprisingly, Wade and the other staff are dismayed by this behavior as they are aware of what this does to the ecosystem and life in the river. Therefore, the River Day experience has a significant educational function, even though a number of interviewees for this research made off-handed comments that River Day is not as educational as the other days of the camp. One parent I interviewed stated,

“Well, the one that [my child] is most excited about doesn’t necessarily have a lot of educational impact, which is the Friday, the River Day. But I love how much fun they have in that community, and I think that that’s important to have that and to build that. So as an educator I know how important it is to feel a part of that and to be comfortable and have fun even though we’re not really learning, you know. But it was on river day this year that they saw that big snapping turtle, and you know, that experience was invaluable, seeing that and being around that and learning about that.”

When I interviewed several of the adolescent youth who were both peer leaders and campers in the Watersheds & Plains program, one of the youth also commented that River Day is not as educational as the other days of R&P, stating, “obviously it’s not as much learning as the other days...” Yet, River Day may actually be the most important educational experience of the entire week in terms of lasting impact on the youth who participate. After all, it is arguably the most emotionally intense day of the program, between the excitement of anticipation and the sheer exhilaration of playing all morning with other children in the river. One peer leader described it as “a culture of excitement... the entire week we’re building up to this river day.” As other researchers (Ballantyne & Packer, 2002; Payne & Wattchow, 2009; Cachelin et al., 2009) have suggested, the emotional hook is what seems to have the greatest



and lasting impact on youth in outdoor environmental education. River Day creates some of the strongest emotional memories for youth, which in the long run has the potential to impact their decisions about recreational opportunities of the Chienne and other rivers in the future.

### **Watersheds & Plains Program**

Watersheds & Plains was started three years ago by Betty in an effort to create a program for youth who had aged out of the Prairies & Rivers program but wanted to continue learning about the natural world. It was started with the idea that campers would be able to build upon and deepen their knowledge from their previous experiences in R&P. While the Rivers & Prairies program is able to accommodate sixty campers each week, the Watersheds & Plains program currently only runs one week in late June, and caps attendance at fifteen campers. During the present research they reached capacity.

#### **Watersheds & Plains program activities and schedule.**

What is the Watersheds & Plains program about? Certainly it bears a resemblance to the Rivers & Prairies program, and as one camper suggested, “It’s R&P on steroids!” Unlike the R&P program, however, almost the entire camp takes place outdoors at various field sites. With the exception of one afternoon spent at the education center, no sessions took place indoors. As described on the organization’s website, the learning activities are concentrated on naturalist knowledge: youth “will gain many skills, such as identifying plants and animals on the prairie, learning to grow [their] own food... and feeling confident about going out on a camping or kayaking trip in the wilderness.”

The Monday session was our farthest field site. At 8:00am we gathered at a parking lot near the middle school, where Betty and Gordon greeted everyone and made introductions. Gordon then drove us by bus to a restored prairie on private property and a creek about 50 miles northeast of town. The sessions that day included nature photography at the prairie, which was led by Betty, and dip netting and seining in the creek, led by a guest presenter. We returned to town at 2:00pm.

Tuesday we gathered early, at 6:30am, and traveled to Roper Park for a bird hike led by Wade. One has to go out early to see the birds, but by the time we started our hike, as Wade commented, "There's not a lot of singing already." We still managed to see more than had we not gone out at all, which is much the point of the program. After the hike, we bussed over to Hansen Prairie for an ethnobotany hike led by Betty. One of the highlights was digging up a prairie turnip that Betty prepared later in the week for the campers to try. At the end of the hike, we gathered at the education center for lunch and tasted samples of tea and jam made from native prairie plants. After lunch, we bussed back to town. The day ended at 12:30pm.

The Wednesday session was one of the highlights of the week. We gathered at 3:30pm and bussed to Hansen Prairie, where we met a guest presenter who talked to the campers about backpacking and camping. We then hiked a little over two miles to a campsite Betty and Gordon had staked out the week before. The campsite was located at Nelson Ranch, a property that WR acquired the Spring after this research took place. At the end of our hike we saw the bluff where a large white tent was already set up, along with some chairs and a fire pit, on which we would

later roast hotdogs, brats, and marshmallows. From the bluff we had a beautiful view of the Chienne River off in the distance, and cows grazing in the pasture, in the opposite direction. Since the experience of camping was the entire session, there was a bit more relaxed feeling, which was reflected in Betty's efforts to get the campers focused on brief learning activities, such as doing a sound map<sup>4</sup>. Though the campers complied with such activities, it took more effort to get them focused. They just wanted to enjoy camping. And they did.

On Thursday morning the campers and the adults began waking sometime between 6:00 and 6:30am. There was already movement about the camp when I woke up. We lingered for a little while, eating a simple breakfast of fruit and breakfast bars. There was a little time to enjoy the campsite, sitting around the cold ashes, chatting, journaling, and taking photos. At 8:30am, we bussed to Lake Yolanda, a private property owned by longtime friends and supporters of Wade, Winona and Wilderness Restoration. There the campers participated in two sessions: dip netting and limnology. From the dip netting session the most interesting specimens were saved and taken back to the education center with us later. In the limnology session, Wade took the campers out on a boat where he talked to them about inland water systems and had them assist in collecting samples and recording the temperature of water at various depths. He commented to the campers that this was a classic study, one that they would do in an introductory

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<sup>4</sup> Creating a sound map involved sitting quietly for five minutes, listening to nature sounds and writing the name or drawing a picture on the paper of the animal or object that made the sound as it corresponded to the location of the listener, symbolically situated at the center of the paper. More detail about sound mapping is included in Chapter 4, including an example image on page 98.

college course. We bussed to Hansen Prairie and the education center around 11:00am, where the campers learned more about inland water systems, ate lunch, and looked at specimens under the microscope. Betty encouraged them to draw the specimens in their journals and to write about their experiences. At 1:30pm, the day was over, and we bussed back to town, arriving at 2:00pm.

Friday we were back at Roper Park for an amphibian session with Elaine, and to go kayaking. Elaine's session gave the campers a chance to be citizen scientists, collecting data on frogs and toads in the area, testing for chytrid. Her session for the Watersheds & Plains program was much longer and more involved than the one she did later with the Rivers & Prairies program. It seemed to me that it was a nice opportunity for the campers who also were peer leaders in the R&P program, as this gave them some familiarity and background knowledge to build on when they did the session later with the younger campers in Rivers & Prairies. After the amphibian session ended, we all went to the recreation pond and learned about kayaking with a guest presenter. The campers did some practice in the pond before heading out to the river. However, because the river was high, one of the hiking trails was under water, and they used this for the kayaking route instead of the actual river. I wanted to kayak with the group, but decided I would not be able to take photos and write notes, so I opted to stay behind and get as many photos from land as I could. It ended up being a great opportunity for me to record some video and sounds, capturing the experience of the place through several modalities. The kayakers came back to their launching point around 1:00pm, and we bussed back to the

campgrounds to eat lunch. We bussed back to the school parking lot, and arrived a little after 2:00pm, ending the program for another year.

### **The experiential quality of Watersheds & Plains.**

The Watersheds & Plains program, while bearing some resemblance to the Rivers & Prairies program, provides a different experience for both campers and staff. On the surface, the differences are obvious: fewer campers; only runs one week; no parent / family open house event; less focus on interdisciplinary learning and more in-depth focus on the natural and biological sciences; no peer leaders; no outside planning staff; the structure of each day varies with no regular indoor sessions; and the campers get one night during the week to camp overnight. But the more subtle differences between the two are about the quality of the experience. As Gordon described it, “it almost feels like when you’re, you know, eleven years old and your parents go out for the night and leave you by yourself. It’s kind of like, ooh, ooh.”

For Gordon and Betty, there’s an excitement about this program because it is their endeavor; it is a program of their making, and one that they do not have to negotiate with other staff. In comparison to the Rivers & Prairies program in which decisions are made by all the staff together, Betty and Gordon (but mostly Betty) get to call all the shots. While they ask the rest of the Wilderness Restoration staff for input and ideas, in the end the final decisions are theirs. During the Thursday afternoon session at the education center, I observed an exchange between Betty and Wade that suggests how he offers guidance to her, but maintains the respect that it is her program to conduct the way she sees fit. In my field notes I wrote,

After setting up microscopes, [Betty] and Wade conversed about how to conduct the remaining session. They talked about ways to help the campers make connections between their sessions each day. Wade started to offer his thoughts, but then asked her, “What do you think?”

Given his experience, it would have been easy for him to simply tell her what to do. But he did not. He understands the long-range effect of her being able to make the decision herself while he is still there to offer guidance. He will not always be there to guide.

The quality of the experience is also different for the campers. Both campers and staff talked about the opportunity for deeper scientific inquiry and getting to interact with experts in the field more closely in Watersheds & Plains, but the real perks for the youth are the freedom and independence they experience. In their words, “you kind of look after yourself, and there’s adults, but they’re not following you around inch by inch.” The overnight camping trip provided some of the clearest examples of the freedom and independence they experienced. In one of the camper’s journals, a note was made about putting up tents. The camper had created a page of little drawings about her day and wrote notes next to each of the drawings<sup>5</sup>. Next to a drawing of a little triangular tent was written, “We were able to figure out how to set up a three-person tent alone without instructions.” Such an experience builds the confidence in youth that the program is intended to provide. Confidence comes from the opportunity to figure things out on one’s own “without instructions.” It comes from the freedom and independence the program provides while adults are still close enough to ensure the campers’ safety.

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<sup>5</sup> An image of this camper’s journal entry is included in Chapter 4 on page 105.

In my field notes, I also noted the more relaxed feeling of the overnight camping trip, which reflects the freedom and independence the campers were feeling by the third day of the program. In my notes I wrote,

Finally, after a fairly unstructured and relaxed couple of hours getting camp set up and having dinner and dessert, Betty made an attempt to get things more structured. At 8:29, she instructed the campers to get their journals. A few got them, but most were still wandering around, messing around and having fun. Betty did not seem too concerned.

And then,

So, at 8:55, Betty instructed the campers to get their journals again.... Some of the campers do some journaling by the fire, while others run off to get pictures of the cows and have more unstructured fun. Finally, by 9:11, Betty has all the campers gathered back around the fire with their journals and instructs them to get a piece of clean sketch paper. She tells them they are going to do something called “sound-mapping” (drawing locations of sounds in the field relative to their position).

This more relaxed nature found in the Watersheds & Plains program is one that is enjoyed by both campers and adults. As Gordon described it, “Watersheds & Plains has been really liberating. It’s a different age group, but it’s basically the same subject matter. We just present it in a different way because Betty and I kind of get to do our own thing.”

### **Educational Opportunity**

In researching Wilderness Restoration’s two primary education programs, a number of characteristics and features became apparent. Many of the individuals I interviewed described the hands-on, experiential nature of the programs in terms of exploring, discovering, exposure and immersion into place. The pedagogical approach used in both programs is designed to foster awareness and appreciation of the local landscape in all its beauty and the potential it holds for greater connection

between humans and the natural world. As mentioned previously, it is the emotional hook through aesthetic experiences that helps create this awareness and appreciation. What WR offers to youth more than anything is an opportunity they are not likely to get elsewhere.

Although the staff, guest presenters and parents that I interviewed did not always use the term “opportunity,” the suggestion of it was often intimated in their words. Campers have opportunities to connect happy memories with natural places; they have opportunities to be outside and to learn in the natural environment; they have opportunities to develop greater depth of knowledge, and to get a closer look at familiar places they usually only drive by. The programs also provide opportunities for the adults involved. For them it is often an opportunity to share their knowledge and to teach in a different way; it is an opportunity to share their enthusiasm for the outdoors. For many of the adults, including peer leaders, I interviewed, when I asked what their favorite part of being involved in the education programs is, the answer was often some variation on loving the response and enthusiasm of the children. As one guest presenter described it, “it’s hard to beat from just the emotional reward you get from it.” How Wilderness Restoration’s education programs offer opportunity will be clarified in greater depth in the next two chapters, as the development of issues and the themes that emerged from the data are discussed.



### **Chapter 3: Teaching Youth About Place (Development of the Issues)**

Place-based education is a response to standardized pedagogy that neglects local human and ecological communities. It draws on progressive traditions and multi-disciplinary, authentic learning that seek to extend learning beyond the walls of the school. Place-based education aims to strengthen children's connection to others, to their region, to the land, and to overcome the alienation and isolation that is often associated with modern society (Graham, 2007, p. 377).

Wilderness Restoration has been educating youth about their local place for nearly twenty-five years with the initiation of the Rivers & Prairies program in the summer of 1992. Initially conceived as a "summer enrichment program," the founding members settled on the idea of a "local natural history education program" that developed into a multidisciplinary week-long day camp for upper elementary-aged youth. More recently they added the Watersheds & Plains program for early adolescent youth who had aged out of the R&P program. Through its education programs, WR engages youth in experiential learning and sensory activities designed to develop their awareness and appreciation for the natural places just beyond their own backyards. The programs are interdisciplinary, focusing on science, history, literature and the arts, and consciously minimizes the use of technology to mediate campers' learning experiences. This chapter aims to situate WR's two primary education programs within the larger context of outdoor environmental place-based education programs in order to clarify how their efforts contribute to the broader goals of place-based outdoor education programs generally.

While Wilderness Restoration embraces the term "place-based" to describe their educational efforts, their programs also share features with outdoor education

and environmental education, both of which have deeper historical roots than place-based education as formalized approaches. Definitions and brief histories of these three approaches help situate Wilderness Restoration's educational efforts.

Following this brief history will be a discussion of nature-based education programs from various parts of the globe so as to situate WR's endeavors within programs similar to their own. Next, I will elaborate the emic issues explored during this dissertation research: concerns about the structure of the Rivers & Prairies program and the role of peer leaders. Last, I will discuss four common characteristics shared by outdoor education, environmental education, and place-based education efforts and connect these with etic issues surrounding WR's programs. The four characteristics are: interconnectedness, social aspects of learning, appeals to students' emotional learning, and the interdisciplinary and experiential nature of these three approaches.

### **Definitions and Historical Roots of Three Educational Approaches**

#### **Outdoor education (OE).**

Outdoor education, a concept that has been around since at least the 1940's (Adkins and Simmons, 2002), in its most basic form is characterized as "education in, about and for the out of doors" (Donaldson and Donaldson, 1958). Over the years, others have defined and redefined outdoor education, each more nuanced than those previous. Three decades ago, Priest (1986) offered a "new" definition that placed an emphasis on relationships. He defined outdoor education as

An experiential process of learning by doing, which takes place primarily through exposure to the out-of-doors. In outdoor education the emphasis for the subject of learning is placed on RELATIONSHIPS, relationships concerning people and natural resources (p. 13).

In the evolution of educating about the natural world this represents an important turn; there began a shift from seeing humans as separate from the natural world, as its caretakers, to recognizing humans as part of the natural world, interconnected with it. Priest outlined six components as part of this new definition of outdoor education: 1) it is a method of learning; 2) it is experiential; 3) it takes place primarily, but not exclusively, outside; 4) it requires full use of the six senses (smell, touch, taste, sight, sound, and intuition); 5) it is based on interdisciplinary curriculum matter; and 6) it is a matter of relationships. This last component Priest identified as the most important.

### **Environmental education (EE).**

Environmental education, which Priest (1986) views as one branch of outdoor education, took “concrete form with the publication of the *Journal of Environmental Education* in 1969, celebration of the first Earth Day in 1970, and passage of the National Environmental Education Act in 1970” (Adkins and Simmons, 2002). In 1976, the Belgrade Charter drafted a goal for EE, stating,

The goal of environmental education is to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones.

The Tbilisi Declaration (1977), recognized as another important document to call for a worldwide effort in environmental education, advocated for EE to help individuals understand major problems, to develop the skills and attributes to act as productive agents for environmental protection, and to be active problem-solvers who take initiative and have a sense of responsibility for building a better future

(Royal Swedish Academy of Sciences, 1978). Others have defined EE elsewhere, but what sets it apart from outdoor education is its “focus on developing the ‘core concepts’ and ‘skills’ that environmentally literate citizens need for responsible action” (Adkins and Simmons, 2002).

### **Place-based education (PBE).**

Place-based education, a term that has been around since the early 1990’s (Knapp, 2005; Knowles, 1992), is an approach to educating learners that is rooted in the local context. Its antecedents extend back much further however. Theobald and Curtiss (2000) point out that John Dewey’s ideas about learning within the community were “crucial to the very best kinds of learning” (p. 107). Smith and Sobel (2010) also devote a chapter of their book to discussing several educational thinkers from history, including William Heard Killpatrick, Harold Rugg and George Counts, whose ideas are in line with PBE. Numerous scholars and educationists have written about PBE, which is also referred to in the literature as “place-conscious education,” “community-based education,” and “pedagogy of place.” It is an approach that includes cultural studies; nature studies; real-world problem-solving; internships and entrepreneurial opportunities; and induction into community processes (Bishop, 2004; Smith, 2002). It includes issues of civic responsibility, diversity, and actual landscape (Brooke, 2015). It is the “interconnectedness of communication, physical place, sociality of individuals, and culture” (Kemp, 2006, p. 131). It is an interdisciplinary approach to education “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” (Sobel, 2004).

Wilderness Restoration’s education programs represent a blend of mostly outdoor and place-based education. Graham’s definition at the beginning of this chapter describes well the aims embodied in the Rivers & Prairies and the Watersheds & Plains programs: “...to strengthen children’s connection to others, to their region, to the land...” Priest’s six components of outdoor education nails their educational approach on the head: experiential, primarily outdoors, sensory, interdisciplinary, and relationships are key. The more overt goals of environmental education, to develop core concepts and skills for responsible environmental action, are the bedrock of Wilderness Restoration’s organizational mission; they restore prairies and teach others to appreciate them because it’s the responsible thing to do. But, in terms of teaching these concepts and skills through their education programs, the approach is indirect. If they see a camper mishandling an animal or an insect they intervene and take advantage of such moments to teach directly about being careful with nature. But, when the cultural component of the program involves farming and agricultural practices, they do not directly discuss the practices that are harmful to the ecosystem. Instead, they focus on practices that are compatible with respecting the environment, such as one year when they toured an organic farm and processing facility. As Wade commented in an interview in response to an early skeptic of the program who feared that they were teaching youth “environmentalism,” “we’ve never preached to kids or anybody really. We advocate by example.” It is through the process of being in the prairie, being in the

river, being introduced to various experts in the field, and all the while having a good time, that they hope their example will sink in and make a difference for the long term. By extension, youth will begin to draw their own conclusions about agricultural and other practices that are harmful to the ecosystem.

It is a leap of faith on their part, however, that youth will eventually make those connections. Some may, and some may not. For some it may complicate their thinking about the choices they make later as adults. For example, one of the parents I interviewed attended the Rivers & Prairies program as a youth, and is currently a tenant farmer. When asked about if and how the program impacts his approach to farming, he responded,

I guess it's always kind of in the back of mind... I don't know how I want to put it, but you're kind of, in a way, you're kind of just... cultivating land. You're... using land for a different purpose than its original or natural... purpose, so I think to some degree sometimes you feel at odds I guess... I think there's always kind of seeds of—I think you question, you know... is what I'm doing a wise use of our natural resources and... that's always there, but I would say that conservation is difficult, or at least, the implementation of... conservation and farming... I think I'm, you know, very cognizant of our water usage. And I think that's very real and I don't know if that really has its seeds in... that experience, you know, because I don't know that... ground water wasn't necessarily a... topic, you know... with Rivers & Prairies and... chemical uses... that's another thing... that's on a person's mind, and you know I think a lot of farmers have misgivings about the chemical use, and but I don't know... We are by and large—I'm a tenant farmer... I don't own... any land myself. My family, my father doesn't, you know, owns about 100 acres and that's it, so the vast majority of our land is owned by other landowners and so to some degree there's... you're kind of limited. You know... there's the... profit motive and... you're paying rent on this ground so you're trying to make it as productive as possible. You know, I think there are things I would do differently if... it was my own land. So... yeah. It has some bearing. I don't know if it would—it's probably not easy to say, you know, what we do is probably not that much different than what our neighbors do... I don't know. It's a good old voice in the back of the

head. It kind of makes you question... and I don't know if that's a... product of R&P or not...

While his experience is only one example of how the programs may or may not have an effect on its participants, it highlights a complex issue: if, as a place-based program, the intent is to help youth see the beauty of the natural environment in order to instill a love of place that leads to a desire and the actions to care for it, does Wilderness Restoration have a responsibility to expand its educational mission?

### **Nature-based Education Programs**

Where does Wilderness Restoration's work fit into the bigger picture of nature-based education programs? Research concerning such programs tends to focus on program evaluation using primarily quantitative measures, although some do employ qualitative data to provide context for the statistical findings. This research often examines program effects on environmental knowledge (American Institutes for Research, 2005; Erdogan, 2011; Larson et al., 2010; Manoli et al., 2014) and whether or not greater awareness leads to more pro-environmental behavior (Ballantyne & Packer, 2002; Bogner, 2002; Manoli et al., 2014; Zint et al., 2014). These studies frequently look for cause-and-effect relationships to demonstrate whether or not the education programs under examination are achieving the broad goals of environmental and outdoor education—whether participants are developing greater awareness for the natural world, knowledge and skills to become environmental stewards, and an inclination to do so. Examples of these kinds of studies come from all parts of the globe, not a surprising fact given that the initial call for environmental education was an international effort, and the

continued interest remains so. Even in the United States legislation and policy still support the notion of the importance of environmental education; the No Child Left Inside Act was renewed February 11, 2015 as part of the Every Students Succeeds Act (the most current version of the Elementary and Secondary Education Act of 1965). Programs have been studied in countries as far reaching as Australia (Ballantyne & Packer, 2002), Turkey (Erdogan, 2011) and parts of Europe (Bogner, 2002; Manoli, Johnson, Hadjichambis, Hadjichambi, Georgiou & Ioannou, 2014) to various states in the USA, including California (American Institutes for Research, 2005) and Georgia (Larson, Castleberry & Green, 2010). The results of such studies demonstrate that giving youth opportunities to learn in and about nature can develop more positive feelings about and views of the natural world.

For example, Larson et al. (2010) examined the effects of a one-week environmental education program in Athens, Georgia on children's eco-affinity, eco-awareness and environmental knowledge and found that informal environmental education programs may be ideal for stimulating positive environmental orientations in all students, regardless of age, gender or ethnicity. While eco-awareness, or "a cognitive grasp of environmental issues related to the general importance and sustainability of natural ecosystems," was not significantly affected by participation in the program, the authors found that there was a significant effect on both environmental knowledge and eco-affinity. In other words, the youths' personal interest in nature increased, as did their intentions to engage in pro-environmental behavior. The authors concluded that because informal programs are



perceived as “fun,” they can play an important role in stimulating positive environmental orientations in diverse groups of children.

Another study, which was conducted by the American Institutes for Research (2005), showed positive effects of an environmental education program in terms of science knowledge and environmental stewardship behavior. The study examined the effects of a five-day outdoor education program for 255 sixth-grade students in four rural schools in southern California. The program used a

hands-on, inquiry-based curriculum [designed] to help students understand the environment and the role of humans as participants in ecosystems, as well as develop their skills, attitudes, knowledge and commitment concerning the natural world” (p. 1-2).

The research used a control and treatment group by collecting data during a first round of participation in the outdoor program, using the students who attended later as the control group and collecting data prior to their participation so that no students would be denied the opportunity to attend the program. The program targeted at-risk youth, many of whom were Hispanic and English Learners and all receiving free or reduced-rate lunches at school. The study found that students who participated in the program showed an increase in personal and social skills, stewardship of the environment, and knowledge and understanding of science concepts. Benefits of the program were measured six to ten weeks after the program ended, and remained evident. The study’s authors regarded these outcomes as particularly positive given the short length of the program.

Outside the United States, researchers find similarly positive effects with outdoor education programs. For example, Bogner (2002) examined the perceptions of French adolescents who participated in a one-week outdoor

environmental education program and found that overall satisfaction of the program was high. Like the youth in Georgia and California, these youth also perceived this out-of-school learning experience as enjoyable. The survey used to measure students' perceptions included five categories: enjoyment of nature; altering nature; intent of support; care with resources; and human dominance. Results indicated the highest score for the item that pertained to awareness of nature and being more respectful toward it. Based on this and other studies Bogner conducted using the same survey instrument, he reasoned that "mass education is, in general, an expensive and ineffective way of changing any behavioral preferences" but "learning about nature and face-to-face experience of natural environments is a promising way of getting close to a better understanding of biodiversity" (p. 28).

Whether programs are experienced as part of a school curriculum, or are extra-curricular, the exposure to being in a natural environment seems to produce positive effects for the majority of youth who participate in nature-based programs. A program in Cyprus, Greece called Earthkeepers showed statistically significant increases in students' ecological understandings, and environmental value and attitudes (Manoli et al., 2014). The researchers collected data for two years; the first year included 196 students from six public schools in grades four through seven, and the second year included 295 students from five public schools in grades four through six. The first year only 45% of the students returned their surveys, but from the data that was collected and evaluated, the results for pro-environmental behaviors increased positively. The second year, the return rate for surveys was

90%, and the results from that data indicated that students were making positive behavioral changes. Suggesting further research, Manoli et al. noted that the program provides evidence that learning through play and spending time outdoors are beneficial components, both of which are major aspects in Wilderness Restoration's programs. Further, the authors also note that the program enhances communication and collaboration, it approaches the environment holistically, and it promotes sharing knowledge, experiences and behaviors, elements that can also be seen in WR's programs.

### **Rivers & Prairies Issues: Program Structure and the Role of Peer Leaders**

As noted in Chapter 1, I conducted a pilot study prior to this dissertation research revealing two emic issues. First, Wade and Winona felt that the structure of R&P was becoming too restrictive, not allowing campers the freedom to learn in a way they had initially envisioned the program. Part of the issue is the number of campers involved each week of the program—there is only so much freedom that can be allowed to children between the ages of eight and twelve when taking sixty at a time to wild places. Safety necessarily has to come before freedom to explore. Second, the planning team as a whole had begun to view the peer leaders of the past several years as less capable than their predecessors, and they were not sure why this seemed to be the case or what could be done about it. This second issue had been addressed by the pilot study, leading me to recommend a change in how they viewed the role of peer leaders. Based on a study by Manion, Fenwick, and Lynch (2013) whose place-responsive pedagogy focuses on “how educators make explicit efforts to collaborate in assembling people, places and purposeful activities

together, to produce viable and valuable environmental education experiences” (p.793) I found support for recommending that the R&P planning team think about how to invite peer leaders into the planning process so as to create greater investment on their part. Manion et al’s study included the suggestion that when teachers sought input and help from their students in planning nature-based excursions, this resulted in activities that were “fun, less time-limited, open-ended, yet purposeful” (p. 802). I reasoned that by giving peer leaders more of a voice, they might come to see their role as just as important as the planning team did, thus leading them to be more engaged throughout the duration of the camp week. In my pilot study report, I wrote

When considering peer leader training in the current case, it may be worth exploring how peer leaders might be brought into the planning process as a way to build their confidence and make them an even more integral part of the program. If peer leaders were to be invested in the program on this level, similar results might happen as with the students from Mannion et al.’s study (Albracht, 2015, p. 24)

Implementation of this recommendation appears to have been successful, as will be discussed further in Chapter 5.

To return to the issue of structure, there is tension between the need to keep a reasonably tight schedule and the desire to allow campers more freedom in their learning experiences outdoors. This is an issue that is certainly not unique to R&P, and is one that is not confined to education programs with pre-adolescent youth. For example, Payne and Wattchow (2009) describe an undergraduate course they have taught for three years called “Experiencing the Australian Landscape,” in which they employ a “slow pedagogy of place.” They take the position that in order for students to be able to respond to ecological challenges posed in environmental

education, pedagogy needs to be focused on the embodied experience of the natural world, and not just on appeals to intellectual knowing and understanding. They state,

...for any pedagogy claiming responsiveness to the ecologically problematic human condition, there needs to be a shift in emphasis from focusing primarily on the “learning mind” to re-engaging the active, perceiving and sensuous corporeality of the body with other bodies (human and more-than-human) in making-meaning in, about and for the various environments and places in which those bodies interact and relate to nature (p. 16).

The R&P planning team shares this view, and they understand that time is a necessary ingredient for this kind of meaning-making to occur. Payne and Wattchow conclude with a discussion of the concept of time and how their approach allows students to experience a more natural sense of time, in opposition to the artificial, modern construction of time that humans have grown accustomed to. They state, “Slow pedagogy... encourages meaning-makers to experientially and reflectively access and address their corporeality, intercorporeality, sensations and perceptions of time, space, and... place” (p. 30).

Though time restrictions are part of the overall issue of structure, one method Wilderness Restoration employs to get youth to slow down and pay attention to their surroundings with their various senses is to conduct a “silent minute” at every field site they take youth. During the introduction to a site, Wade, Betty, or another adult will hush the whole group and tell them to just listen. It is an opportunity to hear birds calling, the sounds of insects, frogs croaking, and the rustling of tree leaves or prairie plants blowing in the wind. It is an opportunity to

take in the beauty of the location without distractions. It is a deliberate act of leading by example to help foster appreciation for the places that are visited.

Relating to time, another aspect involved with the issue of structure is the need to maintain opportunities for youth to develop positive feelings with natural places. It takes time for such feelings of connection to develop, and if the experiences are too structured, it is feared that the feelings will not develop, or worse, will be negative rather than positive. This concern is important since developing emotional connections to nature may have greater impact in the long term than cognitive learning. For example, Ballantyne and Packer (2002) conducted a study with 424 elementary and secondary students in Australia, examining their perceptions of learning in nature-based field excursions. They suggest, “programme features that impact most on student environmental learning are those that engage them emotionally” (p. 227). As the researchers note, this is an especially important finding since many programs focus more on cognitive learning to affect behavioral changes toward environmental stewardship, but “there may be more to be gained by allowing students to engage emotionally with the environment than by attempting to enforce a more cognitive response” (p. 229).

While the Rivers & Prairies planning team is concerned about structure interfering with the potential for these positive connections to develop, data collection reveals that they emphasize this emotional appeal in the program. WR’s emphasis on the aesthetic experience of the natural sites they visit reflects this notion. Wade and Betty are often heard exclaiming to youth things like, “Look! Just look at this!” It is not just about noticing the details that they might otherwise miss,

but it is about stopping and really seeing. It is not about observing with the objective eye of a scientist, but with the passionate eye of an artist. One of the guest presenters who had been a camper years before commented,

The “silent minute” has... on the observational side it actually does tie in with science and just showing up and paying attention to things. But it’s not really about dry scientific observation... it’s really about more the... respect and appreciation of place, and that’s something, yeah, that’s something I think is really powerful.

The “silent minute,” though structured, is one aspect of the program that may go further for achieving their purported aims than any less structured, open-ended exploration might. As a structured activity, it is designed to focus campers’ attention and senses, and is guided by the adults to bring their awareness to the unique details they would otherwise miss. It is designed to attune them to the specific species, both plant and animal, that live in those locations.

Further, the desire for the Rivers & Prairie program to affect these emotional connections was articulated by one peer leader, who stated,

I feel like this gives them—what’s the word?—something to relate happy experiences to. They see a river and they think, “Oh yeah! That’s really cool.” And they might forget specifically why they think it’s cool, but they have that happy memory associated with that place...

The assumption of such a connection is also supported in the research literature on outdoor education programs. Liddicoat and Krasny (2014) conducted a study of memory function (directive, social, and self) in which they interviewed 54 high school students who had participated in an outdoor education program five years earlier. They found that participants “often described remembering their trip when in similar situations and using what they learned to appreciate and understand their local environment” (p. 190). They indicate that this suggests a more “place-based

use” which raises the possibility of an additional memory function, “developing and supporting a sense of place” (p. 190). Additionally, their research also notes stronger social aspects, as opposed to educational aspects, that come through in participants’ interviews in remembering their outdoor learning experiences, and suggest that program developers may want to “consider more tightly linking learning and EE goals to peer interactions” (p. 190). Incidentally, there is no shortage of peer interaction during the Rivers & Prairies program, indicating that the social nature of the learning experience may also mitigate concerns about having a tightly structured program.

A further testament to R&P’s lasting emotional impact is that adults who had participated in Rivers & Prairies when they were younger had such positive experiences that they have returned to assist or have sent their own children to the program. One parent I interviewed stated,

I was excited for [my son] to have the opportunity to do this, and this is the first year that he was able to do it with his age and, you know, I think it was--it’s different.... It’s a different educational experience than anything that you’re going to get in school, and I don’t know. You know, I found it eye opening as a child and... I wanted him to have that same experience I guess.

Maintaining the opportunity for youth to develop positive feelings with natural places is part of Wilderness Restoration’s struggle with not becoming too structured with the Rivers & Prairies program. It is a balance they continually strive to achieve.

### **Wilderness Restoration’s Programs in Relation to OE, EE and PBE**

The issue of understanding WR’s two primary education programs within the larger context of outdoor, environmental and place-based education requires an examination of how these educational approaches overlap and to situate Rivers &



Prairies and Watersheds & Plains in relation to those common characteristics. A review of the literature revealed four characteristics shared by the three approaches: human-nature interconnectedness; social aspects of learning; appeals to students' emotional learning; and their interdisciplinary and experiential nature. A discussion of each and how they apply to WR's programs follows.

### **Human-nature interconnection.**

Historically, outdoor education and environmental education have tended to regard humans as outside the natural world. These two approaches acknowledge a relationship with the natural world, but it has been one of caretaker and object of care, one in which humans respect or come to appreciate the natural world but are not necessarily asked to recognize their own biological nature. With place-based education, humans are viewed as embedded within the natural world. The relationship is one of interdependence. As Mang (2005) points out, "in an ecological world, healthy ecosystems, healthy communities and healthy economies are inextricably intertwined" (p. 17).

Wilderness Restoration's staff and colleagues are among outdoor and environmental educators that have seen the need to integrate notions of place into their teaching approaches precisely because they recognize that formerly these approaches have viewed the environment more generically. For example, Brown (2008) discusses the notion of place in relation to common perceptions of outdoor education, which are often "placeless." Although outdoor education activities take place in the out-of-doors, he notes that the activities could really take place anywhere and still achieve the same goals, that the activities planned by outdoor

educators do not consider the specific place or locale as integral to the learning activity. Using an Outward Bound experience that was adapted for Maori in New Zealand (and renamed Aoraki Bound), and having an overtly place-conscious aim, Brown illustrates the need for outdoor education to embrace specific places as part of the goals of outdoor education. Outdoor education must acknowledge that place is an integral part of achieving the purported aims of outdoor educators: to “heighten awareness of and foster respect for self, others and nature” (p. 8).

From its inception, Rivers & Prairies has been about both fostering respect for self, others and nature, as well as about fostering awareness of specific places. It has been about teaching youth to appreciate and respect the Chienne River and all the life it sustains. It has been about fostering appreciation and respect for Hansen Prairie, Roper Park, Nixon Creek and other natural areas that have been part of the program over the years. The Watersheds & Plains program similarly fosters this appreciation and respect for these natural areas. But it is all done with the purpose to help youth see the bigger picture of interconnectedness of themselves and the natural world, and to realize they have a place within it all. One of Wade’s mini-lectures recorded in my field notes during the W&P program illustrates this:

Wade continued talking and explaining, saying, “All of these things relate.” He listed a diversity of professions in which an understanding of water systems is essential. He emphasized that even if they don’t choose a profession that this is relevant to, they need a general understanding of it to understand their world and what is going on in it.

### **The social nature of experiential learning.**

Nature-based programs like those conducted by Wilderness Restoration lend themselves particularly well to experiential learning that encompasses an

inherently social quality. For example, Smith, Steel and Gidlow (2010) examined the perception of 32 students who attended a three-day “school camp” in New Zealand and found three dominant themes showing that the experience was fun, social and different (or novel). The first theme was characterized by descriptions that indicated enjoyment; the second by descriptions of bonding or becoming “tighter” with peers; and the third by feelings of “realness”, inclusivity, and the temporary “disruption” from life it provided. Studies such as this highlight the contrast of school versus informal learning contexts for youth. For many youth, the formal school environment does not provide a particularly positive social environment, whereas the outdoor setting and structure of camp allows youth to have positive social learning experiences.

Another study, conducted by Ardoin, DiGiano, Bundy, Chang, Holthuis & O'Connor (2014), looked specifically at what prompts situational interest for youth in environmental education programs that are field-based. They found four salient triggers: non-human animals; interactions with peers; unstructured observations of nature; and both program- and non-program-related activities. They assert,

These findings emphasize the social aspect of learning, while also suggesting that interest may be triggered within spaces, relationships, and activities that are inherent in any educational experience, especially those that occur in an informal setting (p. 73).

The salient triggers discovered by Ardoin et al. are strikingly similar to the experiences of youth that participate in WR's programs. There is always much excitement when campers come across animals out in the field or get to learn about wild animals, such as raptors, brought in for a session; there is often joking and good-natured playfulness expressed between campers and

peer leaders, whether on the bus traveling to and from field sites, or while sitting at their tables waiting for the next session to begin; youth are often seen enjoying nature during their unstructured time out in the field, whether it be finding an insect or spider, or taking in the beauty of their surroundings; and youth often enjoy themselves and the company of others during both program- and non-program activities. Following are several examples from both programs to illustrate.

Wilderness Restoration's R&P program exhibits social learning features that play a part in leading to many participants returning year after year, as well as many of them applying to become peer leaders when they get older. The strong social element in R&P occurs in no small part due to the small groups of campers led by one peer leader. Within the small groups, the youth and their peer leader often bond (although this is not always the case, as one group during this dissertation research had two campers that overtly disliked one another, creating a difficult situation for the peer leader). An illustration of this positive social element was shared by one of the peer leaders I interviewed:

I was talking to one of my campers this year who I had a couple years ago, and one memory she mentioned several times was one time when we were having supper and I went off to get something and I came back and they were all playing dead on the tarp. That's the biggest thing she remembered from the entire week. And, I would say to a young peer leader, they're not going to remember the things you expect them to remember, so don't worry about like if you yell at one of them, that's not the big thing they're going to remember from the week... Or, they might not remember the sessions you wanted them to remember, but they're still getting some good out of it, so.

Further, there is a social bonding that happens every year with the whole R&P group that Wade and Winona commented about.

Wade: You don't have the socialization [at school] like we have in camp.... By Wednesday and Thursday the group gels. Every time. It does. Every single R&P week it happens. And I think for some of them they haven't ever experienced anything like that.

Winona: It's the structure that we were talking about this last week, is that Wednesday it's coming together, Thursday they're together and Friday it's a celebration of that.

In the Watersheds & Plains program, there is also a strong social element.

With fifteen campers attending, they were just the right size to feel like one big group with no campers being left out of the circle. Gordon commented on the bonding that he saw occur with this group, stating,

...watching the camaraderie with those kids too. It's been neat. We've had some kids from out of town and watching, you know, we were a little worried, you know, this core group of kids are from [the local town] and there's these two from [another town] and the one from [a large city] or something like that. Are they going to? They just blend perfectly, and I think they're building relationships they'll probably hold on to for a while too, because they sure seem to have missed each other, the kids that have come back for this third year...

From an interview with peer leaders who were also campers in the W&P program, one commented, "it's kind of nice to have a bunch of people around that are learning at the same time you are, so you kind of understand it the same way, and you understand it better if you have more people to compare what they think of it." The social nature of the learning experience is felt and confirmed by staff and youth alike.

### **Appealing to emotions.**

Like the social nature of experiential and active learning activities that are an inherent part of outdoor, environmental and place-based education approaches, the appeal to students' emotional thinking embodied by these approaches is also

important. As briefly noted during the discussion about the Rivers & Prairies program structure issue, WR recognized the importance of appealing to emotions early on in the creation of the program, manifesting most prominently in its focus on aesthetic awareness of field sites to which they take youth. Also, as already pointed out by Ballantyne and Packer (2002), appealing to youth's emotional sensibilities may have greater lasting impact than targeting cognitive aspects of learning when it comes to teaching about the natural world. Cachelin et al.'s (2009) study, mentioned previously in Chapter 1, supports this assertion. Their mixed-methods pilot study examined the cognitive and affective effects of an environmental education program on fourth graders in Utah. Half the students attended an outdoor field-based program, while the other half experienced a classroom-based lesson about wetlands. In terms of affect, the researchers found that the group who had learned out in the field gave more positive emotional responses to issues of conservation and natural areas than the students who had learned about wetlands in the classroom (although it is possible this effect was confounded by the fact that the students whose experience was classroom-based had gotten rained out, and so there may have been negative feelings because of disappointment.) Still, the difference in affective response between the two groups to learning about wetlands is something to consider; the only students who had no desire to visit the wetlands were those who had never been, and those who had formed "positive affective connections with nature" did so during their field experience (p. 13). Pointing to cognitive science research [in Nummela & Rosengren, 1986] Cachelin et al. conclude

“that field education experiences are not only better for eliciting conservation sentiments but also for lasting learning overall” (p. 13).

In addition to the concerted effort to develop aesthetic awareness in youth, WR’s programs foster an emotional connection due to the opportunity to interact with the natural world that simply cannot happen through a book or video. Simply getting to see animals or natural places up close often elicits great excitement because it is unlike anything they have experienced previously. One peer leader mentioned that one of the best parts of the experience for her is she gets to be part of the excitement of her small group of campers who are getting these experiences for the first time:

They're seeing new things and you might be also seeing new things, so they're really excited and you're excited for them because they're enjoying what they're doing. So I think that's what R&P is really about, just getting the kids out there to new places that they haven't seen before and then just experiencing new things that they've never done.

Even for campers who are not always easily impressed, evidence of the emotional responses they display were noted by Winona, who commented:

And the birds, I mean, the mist netting of birds on those Fridays every other year. Just, you can see in the pictures the big eyes. Even kids who don't pay attention and are ornery or whatever every other time are glued to that because they just don't see a literal bird in hand, like they do-- even if it's just something common like a cardinal...

Given the novelty of these experiences for so many youngsters, being outdoors and encountering wildlife face-to-face, it would be more surprising if youth did not have some kind of positive emotional response to their experiences.

### **Interdisciplinary and experiential learning.**

The last, and perhaps most important, feature shared by outdoor, environmental, and place-based education is that they all focus on interdisciplinary and experiential learning approaches. This is also one of the most important characteristics of WR's two primary education programs. Steve, one of the original teaching staff for Rivers & Prairies, indicated just how basic this aspect is when asked what his vision for the future of the education programs would be:

I guess it would just be to stay true to what we've done in terms of providing hands-on natural experience, you know like I say, where we get the kids out into native prairies, rivers, those natural areas, maintain our interdisciplinary approach of bringing in the history and the music and the art, you know along with the science and the literature and you know, tying all those together.

But, why is this kind of education important? First, it means that the experiences are likely to be more relevant to youth because they will be able to find entry points that they determine as meaningful. For example, Rottle and Johnson (2007) engaged 53 sixth graders in a participatory design activity to develop a redesign for an urban park to create natural areas and habitat restoration and found:

Students linked their science learning to the restoration activity; this active endeavor was memorable, repeated and may have helped students to feel they were making a difference (p. 488).

Similarly, youth who have participated in Rivers & Prairies have been able to find relevancy and meaning through their experiences. For example, I interviewed the father of one of the peer leaders who related a story in which there had been some frogs trapped in a window egress, and his daughter was willing to rescue the frogs but she first wanted to find some gloves. The rest of the family laughed at her, until



she explained that it was not to protect her, but to protect the frogs, something she had learned in the program.

A second reason experiential and interdisciplinary learning is important is that it allows youth opportunities to develop practical skills and to build their confidence. A study conducted by Howley, Howley, Camper, and Perko (2011) of a school situated on the Atlantic coast of the United States provides a rich example of this. The school has developed many interdisciplinary and experiential learning activities and traditions over the years, including a yearly fall expedition such as hiking, canoeing, kayaking or some other event in which students must work and function together in a wilderness setting. To prepare for the expedition students must create budgets and organize foodstuffs and supplies, and once they are on the expedition, teachers engage students in a variety of lessons such as the velocity of streams and forest ecology. Like Howley et al.'s example, the campers in the Watersheds & Plains program had opportunities to learn while on the camping trip, such as gaining a variety of skills and being exposed to naturalist concepts. One camper included in her journal that she and a couple of other campers had put their tent up without adult help, suggesting that this was a point of pride (and thus a confidence booster) for them. On the other hand, the W&P staff could also take some cues from Howley et al.'s example and further the opportunities for youth by allowing them to be involved with the background planning for their camping trip, increasing their interdisciplinary learning. Campers could be exposed to planning a budget and preparing the equipment ahead of time.

A third reason experiential and interdisciplinary learning is important is that it aids in developing the whole person, a point that is sorely lacking in the formal schooling experience of many of today's youth in the United States. A study conducted by Allison, Carr, & Meldrum (2012) in which they interviewed Scottish teachers from both school and outdoor learning settings about their perspectives on outdoor learning found this to be one of the dominant perceptions. The authors discussed how participants see outdoor learning as more than the acquisition of skills and specific facts; rather, they see it as a form of inquiry to develop students' whole person. This prompted the authors to suggest that outdoor learning should be conceptualized in a broader understanding of students' moral development in terms of practical wisdom, "promoting capacities for life-enhancing deliberations and choices" (p. 56). One of R&P's guest presenters echoes this sentiment, stating

... just seeing the kids that don't get out and get dirty, and get in the swamp ground and the marshy stuff and that's just fun to see, to see them make a connection with nature and to see that there's more to life than just sitting at home on the couch or going to the swimming pool, getting out and do[ing] stuff.

When Dewey (1938) asked, "How shall the young become acquainted with the past in such a way that the acquaintance is a potent agent in appreciation of the living present?" surely a vision of youth getting dirty comes much closer to an appropriate answer than a vision of youth sitting in nice, neat rows reading from a book or looking at photos projected on a wall. Youth can hardly develop naturalist knowledge without getting their feet in the "marshy stuff." And, this necessarily contributes to developing the parts of their person that are so often neglected in sterile, concrete environments.

Wilderness Restoration staff and their colleagues recognize that much of what they teach is not part of the school curriculum, leading them to view their work as that much more essential in helping youth develop the parts of themselves that may not get addressed elsewhere. One cannot connect with nature if they are sitting in a purely human-made environment. Unfortunately, one of the issues that WR faces is competition with so many other demands on youths' time during the summer. They can hardly help youth develop the parts of themselves ignored by most other venues when their time is consumed by so many other demands. For example, Wade and Winona have seen the rise of summer sports camps over the years, and lament the notion that children who want to participate in sports during the school year do not have any real choice about attending the summer clinics. From their perspective, these clinics are no more than an extension of the formal school experience in which youth are surrounded by non-nature and made to follow directions with little opportunity to make decisions for themselves. As they see it, school is robbing children of the summers that they once could enjoy, summers that were mostly unstructured in which children could free play and find their own amusement, make up their own rules, and decide for themselves what is important to attend to. They see their program being affected by the situation, but they also see the possibility of being part of the antidote. This makes their desire to give youth more unstructured time during the Rivers & Prairies program that much more urgent.

## **Concluding Thoughts on the Issues**

Over the past three-quarters century place-based, environmental and outdoor education have emerged from educators' and others' desire to connect more directly to the immediate surroundings of human beings. In all three approaches, attentiveness to wholeness and connectedness has been and continues to be present. The nature of that connectedness has been viewed in a variety of ways, but the underlying current is present in all three. As social contexts have changed over time, terms and ideas about the relationship between humans and the natural world have evolved. Outdoor education, the oldest term of the three, began as a response to the perceived need to get students outside the four walls of the classroom, and to reintegrate this natural part of human life back into students' learning. Environmental education, considered a branch of outdoor education, emerged at a time when the alarms of global environmental degradation were beginning to sound more urgently. From the perspective of environmental educators, outdoor education had not done enough to reconnect humans with the natural world, to realize their connection to nature, and to instill the skills and knowledge needed to care for the natural world. Place-based education has emerged most recently of the three, in response to the failure of the other two to emphasize not just human connection with the natural world, but interconnection. PBE is one of the latest in a line of educational approaches that seeks to reconnect human beings with the natural world, but in a way that recognizes the interconnection of material, natural, social and even spiritual worlds. Human beings are not separate from these various facets; they are intertwined with all of them.

Wilderness Restoration's two primary education programs are situated within the larger context of outdoor, environmental, and place-based education approaches. They face challenges in their work as they press forward in maintaining the principles with which they started. They feel the pressures of a changing world that affects their mission to get youth out into nature in order to develop an appreciation for the natural places just beyond their own backyards. They feel the pressure, but also urgency to press forward. Changes will inevitably come in the near future as the remaining founding members of the Rivers & Prairies planning team continues to move on, and as the education center comes to completion and they begin to base their programs from it. They face challenges as they contemplate how to structure their education programs in the face of these changes, but they face them with a secure belief in the importance of the work that they do.

## **Chapter 4: Descriptive Detail, Documents, Quotations, and Data Triangulation**

“You really invest in people.” – Wade, talking to a camper out in the prairie

This chapter focuses on four themes: the generic use of the term “Native Americans”; the use of technology and the felt tug-of-war with it; aesthetic components as the first steps in building a vocabulary to develop literacy of the local landscape; and the “real” education and opportunity that Wilderness Restoration’s education programs provide. These four themes represent different facets of the importance of connecting people and land that is at the heart of Wilderness Restoration’s view of place-based education.

### **“Native Americans”**

As I did my observations, I began to notice that when Native Americans were referenced, such as during the ethnobotany hikes, they were always referenced as that: “Native Americans.” Specific tribes were not named. For example, one of my field note entries from one of Betty’s ethnobotany hikes during the Watersheds & Plains program included, “She spoke about how many of the plants on the prairie had medicinal uses for Native American tribes, and much of that information is being rediscovered,” and “At 10:57, we finally arrived at the prairie turnip, another important plant to Native American tribes.” Betty was not the only one who referenced indigenous culture in broad terms. During peer leader training for the Rivers & Prairies program, Winona explained to the youth that the campers would be playing a couple of “Native American” games during one of the sessions. In my field notes, I typed,

At 10:47, Winona explained to the peer leaders that they would learn how to play a Native American game. She explained, "It's a game kind of like musical chairs." She told everyone to stand in a circle, then while she stood in the middle of the circle, she passed out a turtle shell to one peer leader and sticks to everyone else. As they passed the bag and took a stick out, Winona explained the game. Gordon had a drum and was standing outside the circle. He beat the drum while the peer leaders passed their sticks and the turtle shell.

After noticing the general references repeatedly, I did two things: 1) during interviews with staff I would ask specifically about indigenous cultures and how Wilderness Restoration's programs address this aspect as a part of place-based education. Again, the responses in interviews were mostly generic. Staff would almost always use the term Native Americans, and only made reference to the Pawnee tribe in two instances. And 2) I counted the times that "Native Americans" were referenced in my field notes and in the interviews. Between interviews and field notes, the term "Native Americans" was mentioned 21 times (32 actual times, but the term was used multiple times in a single response on four occasions in interviews). Reference was made to the Pawnee by two of Rivers & Prairies' planning team members, one who used the term when describing the kinds of activities that are typical in the program, and one who answered a question specifically asking about how indigenous cultures are addressed in the program.

But what is perhaps even more significant than the generic use of the term is how often indigenous culture is *not* mentioned. In the case of the interviews, while I did not always ask specifically about indigenous culture, I did always ask interviewees how Wilderness Restoration fosters a "sense of place" through its education programs. The fact that not a single response included the idea that "sense of place" should include learning about the people who lived on this land for

thousands of years before White settlers came to the area, even if they had been referenced in the generic, is telling. A sense of place did not provoke the thought of indigenous culture for a single interviewee.

Another question that was asked of all planning staff was to describe program activities. In the case of the staff member, Richard, who did mention the Pawnee in response to this question, his profession was middle school social studies teacher and his role on the planning team was to bring expertise about history, and to ensure every year that history was included in the program activities. While answering the question, he stated,

The mornings are at a site, usually one day a week is a historical day, and we do all kinds of different things with the [historic cemetery], but we go to other different areas as well. We've been to Pawnee village sites, for instance, and I had [the campers] do a... build an earth model, earth lodge, which, I really enjoy that and I think the kids do too. It comes to life when they see these rings but don't know what they are. They built one and they see what happens to it after time.

He was the only one who made reference to indigenous cultures in response to the question to describe program activities.

To be sure, the intention to include indigenous culture, and specifically the Pawnee, has been part of the planning process for Rivers & Prairies in the past. But for the most part the staff recognized that it was not necessarily a priority during the present research. When specifically asked about how the program addresses indigenous culture as part of their place-based educational mission, Gordon responded:

It comes up a lot. It's come up with art projects in the past. This year we did some Native American games. We had a presenter. I cannot remember his name now. He's passed away, but he used to come and do Native American games and songs with the kids. He was a regular



presenter. He died of cancer like three years ago. I've never met him. I wasn't involved in Rivers & Prairies when he was... But yeah, ...we're very fascinated by Native American culture and we, it seems like every year, we manage to do something. I don't know if we do enough. I don't know if it's, you know, Native American games, is it really? I mean, sometimes those are just, you have two really good meaty science sessions and in the afternoon, you have to have two other ones that kind of burn off some energy for the kids or kill a little time or something so doing our drum and stick game or throwing arrows through the hoop. They're fun. The kids love them, but I, you know, I don't know how educational it is really like here's a game Native Americans used to play. Well, that's neat. You know, most people probably assume they played games. They're kids. So, I would love to see more of that...

Another indication that the intention or awareness among staff to include indigenous culture is present, but not fully inclusive in how place-based education is conceived, is how indigenous culture was both referenced and excluded in the newer program, Watersheds & Plains. In my field notes, the only time "Native Americans" were mentioned to the campers was during Betty's ethnobotany hike. No other sessions during the entire week included any reference to indigenous culture. On the third evening, during the camp out, Gordon did share a passage from Lewis and Clark's writings about their journey west, which I recorded in my field notes:

At 9:43, after journals were put away and everyone was gathered around, story time began. Gordon started the activity by sharing a passage from Lewis and Clark's journal. It seemed a bit long, and as Gordon admitted, the language was a little difficult in parts, but when he finished reading, he pointed out that the entry began with a complaint about mosquitos and then ended with a complaint about mosquitos, and that's why he wanted to share it with everyone. He thought they could identify with Lewis and Clark's experience in that regard.

It is possible that the entry may have also included reference to an encounter with native people, but it was not what Gordon emphasized in sharing it with the

campers. Further, the campers' journals showed no evidence that the program's activities prompted them to think about indigenous culture, either.

## **Technology**

The use of technology for the purposes of education within Wilderness Restoration's programs presented an interesting point of analysis. On the one hand, the youth who participate in Wilderness Restoration's programs are "technology natives" (Prensky, 2001) who by and large experience life mediated by technology. In essence, experiencing nearly everything one does through some sort of digital technology is the norm for many young people. This norm extends to how they think about their experiences, even when they are not using a particular technology. For example, during the Watersheds & Plains session of digital photography out on a restored prairie, I noted one of the camper's vocalizations about his experience, "Hashtag save the suicidal caterpillar!" It is unlikely this camper gave the phrase much conscious thought before, or after, he blurted it out. This random thought that came out of his mouth is more likely an indication that thinking about life in "hashtags" is just that—it is a part of life for this generation.

On the other hand is Wilderness Restoration's goal of getting young people out into nature, and they often see technology as interfering with the organization's educational mission. They see their educational program filling a need that many people do not even know they have, to unplug from the digital world and reconnect with the natural world. For example, during Elaine's interview, she lamented the decision to use a projector during story time after lunch in the Rivers & Prairies program. In the past, story time usually took place out in the field after lunch was

finished, but before returning to the school for afternoon sessions. In her interview, she stated:

Yeah, even with the stories, which was awesome, you know it was nice to see the book up there and to read the words and to understand, you know to see—I also feel like we lost that connection of, you have to be quiet. You have to listen. You have to focus. It's not going to be big and bold and—sorry! [laughs] No, you have to focus, you have to listen. I felt like those power points, it's almost like, you don't have to listen to what I'm saying because it's all here. And maybe that's part of that weird connection that's lost.

Elaine acknowledges that using the projector allowed the campers to see better, and that bringing it indoors helped in terms of being able to hear, but she is not convinced that the use of the technology is better for achieving the fundamental educational mission of the program. For her, and for other staff, developing the discipline to focus, to really stop and look and listen and experience the natural world, is one of the benefits of what the program offers. And for Elaine, she questions if giving in to the use of technology for something like story time interferes with that skill development. If youth are going to connect to the land, Elaine's point is that story time needs to remain outdoors, even if it means straining to see and hear.

In asking the question of how Wilderness Restoration's education programs are conducted and what kind of learning activities are created to teach about the local ecosystem, one place I focused my attention was on the ways that technology is used in the programs. My reason for doing so was twofold: 1) Wilderness Restoration's staff often struggles with technology and the idea that things like smart phones and video games divert youth's attention away from the natural world, and 2) youth do not necessarily see this tension, and because they are

“technology natives,” may actually get the message of the program when technologies are authentically integrated into their outdoor experiences.

In an effort to systematically find patterns on use of technology in the programs, I first searched for the term “technology” in my field notes and in the interview transcripts and pulled out sections of text that seemed relevant. Then I created a list of terms that would assist me in locating instances of technology use in the textual data. I searched the interview transcripts and found “telescopes” discussed in two of the interviews, “microbe show” and/or “microscopes” mentioned in six interviews, and “camera” and/or “photo” in five interviews. Other terms relevant to program sessions included “Google,” “PowerPoint,” and “movie”/“film,” which were each mentioned in one interview.

### **Microscopes.**

One of the main sessions engaged in every year, with variations in both programs, is dip netting in lakes and rivers. Specimens netted are then brought back to a laboratory setting with microscopes set up so that campers can look at their finds more closely, and learn more about them. This session is connected to the terms “microbe show” and “microscope” that were mentioned in six of the interviews and is one of the ways that technology is significantly integrated with the learning goals of the program. While microscopes are an older technology, they represent the way that technologies become integrated into learning processes over time and become part of the normal routine. I highlight their use in WR’s programs to suggest that newer technologies should be regarded similarly for their potential

to become part of the routine of learning, and not just as a distraction. Regarding the use of microscopes, one of the guest presenters and volunteers stated,

Every time I've helped out with the open house part of it, I always help out with the microbe show, 'cause I just think that's the most fun, playing around with that. I'm only helping where I need to. And what's so cool about that is it's all the kids you could barely pry out of there when it was time to rotate earlier, and they're coming in and they're finding all that same stuff and explaining it to their parents what we had just explained to them, and so, I mean from an educational stand point that's perfect—you can't beat that. It's exactly what you wish everyday education would be like. As you discover this, I explain something about it, and you explain it to someone else to solidify it, and so yeah. You really can't beat what goes on there.

An interview with a parent of one of the campers also echoes and strengthens the value of integrating this kind of technology in the program:

I think it's a great program. I think that having... that experience of being outside and learning. I also really like the way it's like half a day outside, half a day inside and... that blend of those kind of experiences, you know, so that this is what we experienced in the morning outside. Now we're going to come in and kind of talk about it and process it and get out the microscopes and do that end of it. I think it's important, because you can only march around in a field so long.

Although I did not get to observe the microscope session in Rivers & Prairies since I was involved in leading another session at the time, I did attend the "Microbe Show" during the parent open house for a while, and it was busy and crowded and noisy with campers and their families as they excitedly looked at various specimens under the microscopes together. Although this detail did not make it into my field notes, I did get photos of the session that show how popular it was at the open house.



I did record field notes for the microscope session in the adolescent program, Watersheds & Plains. These support the value of this kind of technology integration:

Betty walked several jars and make-shift petri dishes around so the campers could take a closer look at the specimens. She told them they could draw whichever specimens they wanted in their journals, giving an example of one that she would choose. They could take photos if they chose. There were two microscopes, but only one set up, and a couple of aquariums set up for campers to freely look in. They could take specimens out of the aquariums and put them in a jar to draw if they wanted. Betty told the campers to take turns at the microscope, but everyone would get a chance... Wade called attention to tell them about a specimen under the microscope. It had a green intestine due to all the algae it had eaten.

Clearly, these opportunities to follow up the netting sessions with a chance to examine the specimens more closely enhances the campers' experience and adds to the programs' goals of connecting people and the land, and can be regarded as authentic technology integration.

### Digital photography.

Nature photography was another session that integrated technology into program activities. It is not one of the primary sessions done every year, but was a substantial part of both programs during this research. Just as I had searched the interview data for particular terms related to technology, I did the same with my field notes. I searched and tallied the following terms: digital, photo, camera, phone, Google, telescope and microscope. The following table shows how many times each term appeared in my field notes on which dates, with “photo / picture” clearly being the salient term, indicating the significance of photography in my observations.

Term/ Date	digital	Photo/ picture	camera	phone	Google	microscope	telescope
June 22	2	35	6	3	1	0	0
June 23	0	9	1	0	0	0	1
June 24	0	2	0	3	0	0	0
June 25	0	13	0	0	0	6	0
June 26	0	11	4	1	0	0	0
July 2	0	8	0	0	0	1	0
July 6	0	8	0	1	0	0	0
July 7	0	6	0	1	0	0	0
July 8	0	38	8	1	0	0	1
July 9	0	9	0	0	0	0	0
July 10	0	6	2	0	0	0	0
July 13	0	1	0	0	0	0	0
July 14	0	11	0	2	0	0	0
July 15	0	21	5	1	0	0	1
July 16	0	15	2	0	0	1	0
July 17	0	9	3	0	0	0	0

The three days with the largest number of occurrences (June 22, July 8 and July 15) correspond with the days in which nature photography was one of the planned sessions. In my field notes for the Watersheds & Plains program, I described the beginning of the photography session thus:

At 9:04, with everyone gathered on the dirt road next to the prairie we would be venturing out into shortly, Betty asked, “How many are using phones?” She then instructed phone users that they would need to select two photos later and email them to her so that she could print them out tonight and they could add them to their journals tomorrow. Before launching into some photo-taking tips, she read a passage from a naturalist’s journal, called “Becoming a Naturalist.” A phrase that stood out to me was, “The word naturalist has disappeared from education.” The entry she read discussed the idea of naturalists being generalists, something that seems foreign in our world of specialization.

At 9:07, after reading the entry to campers, Betty segued by saying, “You are going to learn a lot from your observations being out here.” Again, she emphasized that naturalists learn to do what they do by being out in nature, observing, drawing, writing, and taking photos. She shared that she has learned a lot in the last few years, things that she didn’t learn in school. Even though she learned a lot as a Biology major in college, she has learned a lot out in the field that can only be learned there. She told the campers, “I’ve learned a lot about this specific area by being out here.”

At 9:09, Betty went over some photo tips with the campers. She discussed changing your point of view, for example, using a bird’s eye view or a bug’s eye view. She encouraged them to take close-ups to get details, and to use the macro setting on their camera if they have it. She reassured them she would assist anyone who wasn’t sure about the settings on their camera. She also shared a few photo examples from a book to give them some ideas.

At 9:13, before taking them out to start photographing, she discussed restoration briefly. She talked about the farmers who own the land having a choice to participate in programs that assist with wetland restoration, pointing out that some care a lot, and some don’t care at all. She said, this is why it is important to educate people about the land, so that they understand the importance of wetland restoration and preservation. The prairie we were at had been restored by Wilderness Restoration about six or so years ago. She explained that the first four years of restoration seem slow, because the roots of the grasses and plants have to grow down deep, but by around the fourth year, the growth really seems to take off. She listed off a few things they would see: milkweeds, monarchs, wildflowers and grasses. Her final word before setting off into the field to take photos: the goal of prairie restoration is to take it back to what it used to be. She then instructed campers to leave their backpacks on the road if they want, and just take their water bottle and camera. We walked into the field about a hundred feet, following Betty to a patch of milkweeds, where she talked about Monarchs, their migration, how

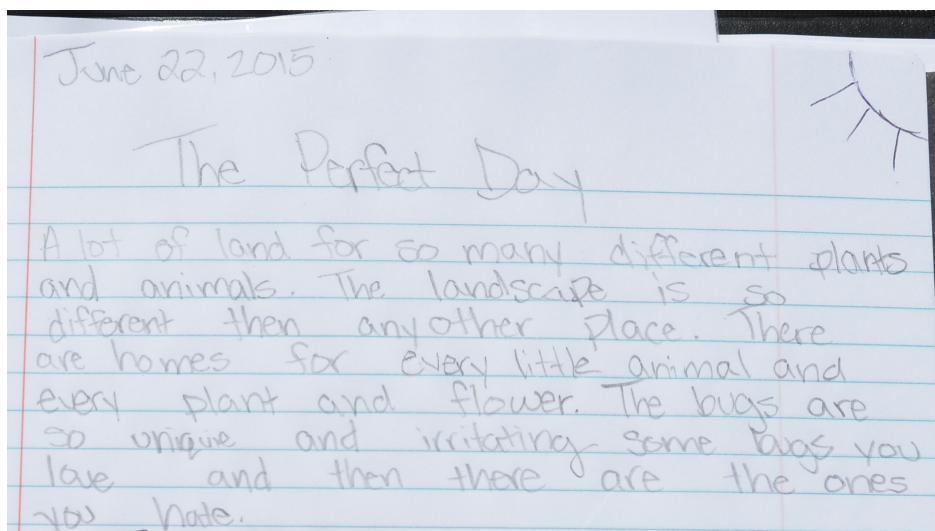


their numbers are down because of habitat loss and why it is important to restore prairies.

At 9:23, we headed further into the field and dispersed to take photos. Betty reminded campers quickly about the photo tips and told them, "Be open to observation. Let's go take some photos. And feel free to journal as well."

From this extensive excerpt of field notes one gains a sense of the focus on the action of photography and its importance in the youths' experience of the natural world. But, one also gains a sense of how Betty connects the experience with the importance of land restoration, to professionals who use writing and photography to help others develop an understanding of the importance of the work, and how she encourages the youth to develop their observation and other naturalist skills using the technological medium of digital photography.

Although it does not specifically mention photography, one of the camper's journal entries for June 22 illustrates the impression the experience of the photography session in the prairie had:



The opportunity to mediate the experience of the prairie with digital photography allowed this camper to make some observations that she or he may

not have otherwise, and to make the connection that, “There are homes for every little animal and every plant and flower.”

Discussing photography with Betty also revealed the significance of the use of this technology to further the goals of Wilderness Restoration’s educational mission. As she reflected on how the session was planned and set up for the Rivers & Prairies program, she compared it to her experience volunteering with 4-H as a photography instructor.

With the 4-H, you know, everybody’s so busy they have one hour a week, to do it, so really we just get them out and we help them as we go with the cameras and settings and things like that, which we have very limited time in Rivers & Prairies too, but I think what was interesting about that was the introductory part to it, which, I could take some of these ideas, actually, for 4-H too, time-wise if it allows, but having the introduction and showing them more examples, showing them why nature photography is actually important, ‘cause that’s something we don’t really talk about, ‘cause it’s all general photography, we don’t specifically talk about what’s so important about nature photography and why it’s so neat. So that was one thing I really liked that we did with Rivers & Prairies. And also the follow-up—I mean actually finishing that project with [the campers] was neat, whereas with 4-H, they’re kind of on their own to do the [County] Fair projects. And those, I guess that’s kind of what I was getting at with the structure. They have to fit certain guidelines or they can’t submit, you know, certain photos. Whereas with our project, it was, you know, you choose these two photos and you’re going to create, you know, this interesting piece of art out of it, where you can see those at a different angle and where they have a different relationship to each other, you can either focus on—take a landscape shot and found something of interest and did kind of a macro shot of that. So kind of breaking it down, or you know, people enjoying nature, and then enjoying a sunset and then taking an actual landscape shot of the sunset, so I think we just have more room to wiggle on that and I think the kids really enjoyed it and got something out of it. Whereas they—instead of trying to make something fit a certain requirement, or a certain, you know, it has to be this big and matted like this and needs to be framed and you know, I don’t think that’s necessarily as beneficial to kids, to have to deal with all those details, rather than just get those experiences. And learn a little—of course learn about photography, but also, you know, gain that

interest, maybe sometimes the structure, and this is just me talking, I think sometimes the structure could be a turn-off for some kids—especially that might not want to—that maybe really wanted to display a certain photo this way, but they can’t, because they have to fit that guideline for their projects, so yeah, letting them express themselves in a different way.

As Betty described it, doing nature photography with the campers allowed the opportunity to show them “why nature photography is actually important” and it allows them to “gain that interest” in the land that leads to developing a connection. The use of photography in Rivers & Prairies, and also in Watersheds & Plains, allowed youth to go beyond only developing technical skills in photography, but also to engage in meaning-making as they mediate their experience with digital technology and develop stronger connections to what they are doing and learning about.

#### **Other examples of technology.**

In addition to these two main examples, there are a number of other examples of technology use that clearly aid in achieving the educational mission of Wilderness Restoration. For example, on the first day of Watersheds & Plains when we were on the return trip from the field site, I made this note:

Gordon asked the campers if they know how to measure speed of a vehicle. Yes, miles (or kilometers) per hour. And then he asked if they know how to measure the speed of a river. He told them flow is measured in cubic feet per second. So then he asked Betty to look up the current flow of the Chienne River, which she discovered is 12,000 cubic feet per second right now.

Clearly, the availability of smart phone technology in this instance allowed Gordon and Betty to be able to continue bringing awareness and knowledge about the local environment to the campers.

Another example of technology use aiding in the educational mission of the organization occurred at the end of the week with a session that Elaine presented on amphibians. Following is the entry from my field notes:

After covering a few more background items, she went through the various toads and frogs found in the state (which were also featured on the brochures she had handed out) and for each one, played a short recording so that the campers would know what they sounded like as well as what they looked like. They learned about the Spadefoot, the Plains Leopard frog, the Northern Leopard frog, the Bullfrog, the Plains Narrowmouth toad, the American toad, the Great Plains toad, the Woodhouse toad, the Northern Cricket frog, the Copes Grey Tree frog, and the Boreal Chorus frog.

This not only enhanced campers' experience and understanding, but also was necessary in helping them accomplish the follow-up activity of catching frogs and toads. They knew they needed to be quiet and listen attentively so they could locate the animals more easily in order to catch them.

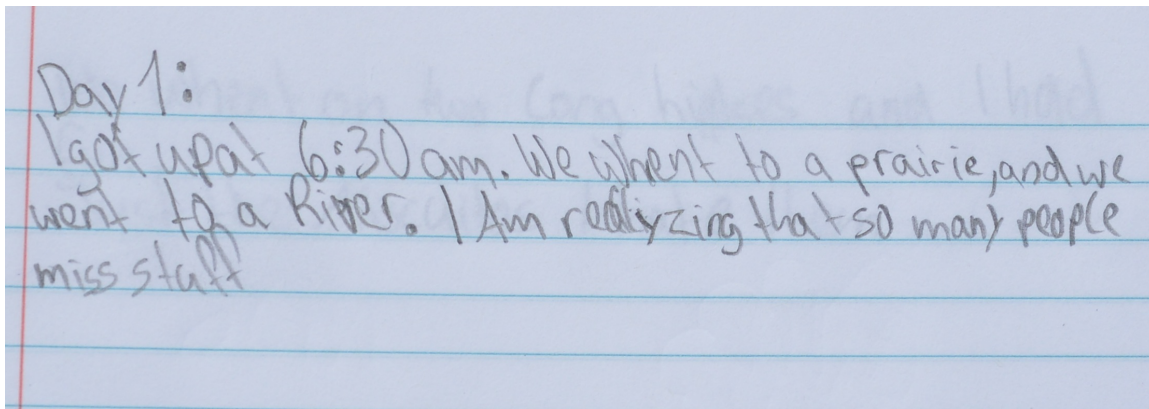
There are too many examples of technology use to list them all, and certainly staff agree that these are valuable, sometimes even essential, to conducting and achieving the goals of the programs. To be sure, the tug-of-war that is felt with technology and conflicting with Wilderness Restoration's educational mission is a real one. For example, even though Betty allowed the use of phones for taking photos during the Watersheds & Plains program so that campers could include them in their journals, she felt compelled to remind them "not to use them as a distraction for playing games and the like." However, in recognizing the ways that the adults take for granted the use of technology for program activities may help them see how "technology natives" might be reached if their interests in technology are acknowledged rather than actively thwarted.

### **Landscape Literacy through Aesthetics, Appreciation, and Awareness**

But sometimes kids just don't know how to look, and therefore there're things they just do not see. (Winona, interview)

As things started to evolve, it became intertwined with, and specifically with Rivers & Prairies, the idea of the beauty and the aesthetic aspects were really fundamental to how we viewed education. You can't take people to an ugly place. You can, but for the most part the places that are best have a certain beauty and reality to them. You can teach anywhere, but those are the places that are—they lend themselves to multi-faceted education. (Wade, interview)

During the pilot study I conducted it became evident how strong an aesthetic current there was in Wade's inspiration for creating the Rivers & Prairies program more than two decades ago. I knew that this aspect of the program would be a prominent part of this current research, but what I did not know then is what it might end up meaning. I discovered that the intentional aesthetic component of Wilderness Restoration's educational mission is about literacy. As the quote that opens this section indicates, getting campers to notice what they would not notice on their own is designed to help them become more aware, which is the first step in learning how to "read." And it is what education of all stripes is essentially about—helping others to learn or discover what they might not on their own. Perhaps the most poignant example of Wilderness Restoration's impact in developing awareness came from one camper's journal entry:



"I am realizing [sic] that so many people miss stuff." (Camper journal entry). This youth's brief statement is the stripped-down bare response that is the essence of what Winona, Wade, and the other staff are hoping that campers will have. The simplicity of the statement reveals just how honest it is: this camper is learning to see, is learning to read the landscape, if only the very beginning, but it begins with seeing and becoming aware. In a sense, the Rivers & Prairies and the Watersheds & Plains programs are akin to the early reader books in developing language literacy. Many of the campers are getting their first exposure to really being out in nature, spending real time in wild places, and the aesthetic components of the programs are designed to help youth to start recognizing the "words" that will allow them to read the landscape as they gain more exposure and experience.

During my interview with Wade and Winona, they mentioned the book *Reading the Landscape* by Mary Theilgaard Watts, an early natural history classic that Wade was reading at the time. Wade also talked about narrative when I asked him about his presenting or teaching style. These two points combined helped me to realize that the aesthetic aspects of the education programs are about literacy. Wade

first mentioned narrative when I asked about the mission of their education programs. He said,

I mean, a lot of what we think about has to do with narrative, the story, whether that be the history, or how you develop as a naturalist. Like Betty and I will talk about developing the narrative and we tell the stories about it. So that's part of the art of teaching.

Later, he came back to narrative when I asked him and Winona to describe their respective teaching or presenting style; Winona commented about Wade's approach, "He can just go out with a group, whatever, now, with no advanced planning or warning and he can just do it." To which Wade responded, "But that's the narrative building. That's the naturalist teacher narrative." However, an exchange between Wade and Winona while discussing how the programs develop a sense of place best highlights the aesthetic components as developing literacy:

Winona: There are different levels of awareness of... of the place that you live in. Where—I'm not saying this well—where someone may come to [town]. Okay, and they have just a real general background, okay. So we're in a town, and we all know what a town is like, and there are some parks and out there, there's cornfields and soybean fields and maybe there's an open area, that must be a cow pasture. Right? And, there's an area out there that's kind of wet and ducks go there. Well, that's a real low level of awareness. And you take them, and you go to that wet area and you talk about water, and where it is in the ground, and these are wetlands, and what wetlands do and what they mean and what all they have besides ducks. Dip net, you know, and that's a whole other level of awareness of what that wet spot is.

Author: Right.

Winona: And you take them to the cow pasture. Well maybe it is a planted grass thing, but then you can take them and compare with a prairie, a native, this is the native landscape of the state and take them back to their fourth grade history books— about this is the environment, this is the land, this is what was growing here that was written about in *O Pioneers*, and then get into the biology. It's not just a field or a cow pasture or something. So that takes a few notches of

their awareness. I think that's all part of sense of place. You know, you can just sense like you're anywhere in the whole middle of the country where there's towns or cities or fields and cornfields [laughs] you know, to realizing that there's a lot more to it than that.

Wade: Your education isn't just about disciplines either, it's about everything connecting. There's a reason everything is connected. And how and where it is connected is the story, like, just like that PBS show, it was a narrative. It was the narrative of the presenter that tied everything together. And, in our case, I always use the metaphor of we use nature as a stage. It's a vehicle to teach this way. You know we like to because of endless possibilities. It's never boring.

Winona: Mention that person from that book that's reading the landscape

Wade: Mary Theilgaard Watts. That's the book, *Reading the Landscape*. Very simple early natural history classic. Maybe not that early, post-war.

Winona: We'll have a measure of a person's increasing sense of place when they can go down a road ditch, and tell whether that road ditch is just some planted brome or truly, you know, weedy or whatever. Or if that ditch is actually part of a prairie, you know. That is kind of reading the landscape.

Wade: We realized that the flora rainwater basins was existing in road ditches. We never looked at road ditches analytically that way. We could see if there was a prairie in the road ditch, but we couldn't read the wetland community. But really, that's what a lot of the wet ditches are. They're little basins. The signature of the soil type and the plant response is the same. But that was trained ecologists that came up with that right away. But you can help anybody understand those connections. Don't have to be big science-y things.

Winona: You can kind of make an analogy of going through a place where you don't know anybody, you see a bunch of people and you don't see anybody. 'Cause they're just people. You drive down a country road and you don't see—you see there's trees, there's something, weeds, grass, whatever. But when you go by you know, a crowd in [your home town], whatever, your town, a family reunion, you notice, you connect. You have associations, the same thing. The local landscape, if you know some of those plants, and you know some of the birds you'll hear that bobolink. You know, you're so much more aware. And I think all that is part of sense of place.



Aesthetics are the entry point for learning how to read the landscape. One of the most deliberate and basic activities designed to do this is called the “silent minute.” Incidentally, when I directly asked about how the programs develop a sense of the aesthetic, the “silent minute” was frequently cited as one of the most important activities to do this. Five of the interviewees mentioned the silent minute before citing other activities, such as the art projects:

The “silent minute” has, you know on the observational side it actually does tie in with science and just showing up and paying attention to things. But it’s not really about dry scientific observation... it’s really about more the appreciation of the, respect and appreciation of place, and that’s something, yeah, that’s something I think is really powerful.  
(Guest Presenter, interview)

I think it’s the aesthetic part that is your initial draw. I mean that’s what hooks you first, for most people, and the study comes after that. But yeah, I mean the “silent minute” is a perfect example of that too.  
(Wilma, interview)

One of the things that they do for Rivers & Prairies is that they have a “quiet minute” first time they go places, where everyone is quiet and you listen and you look and you see what that place has to offer.  
(Program Volunteer, interview)

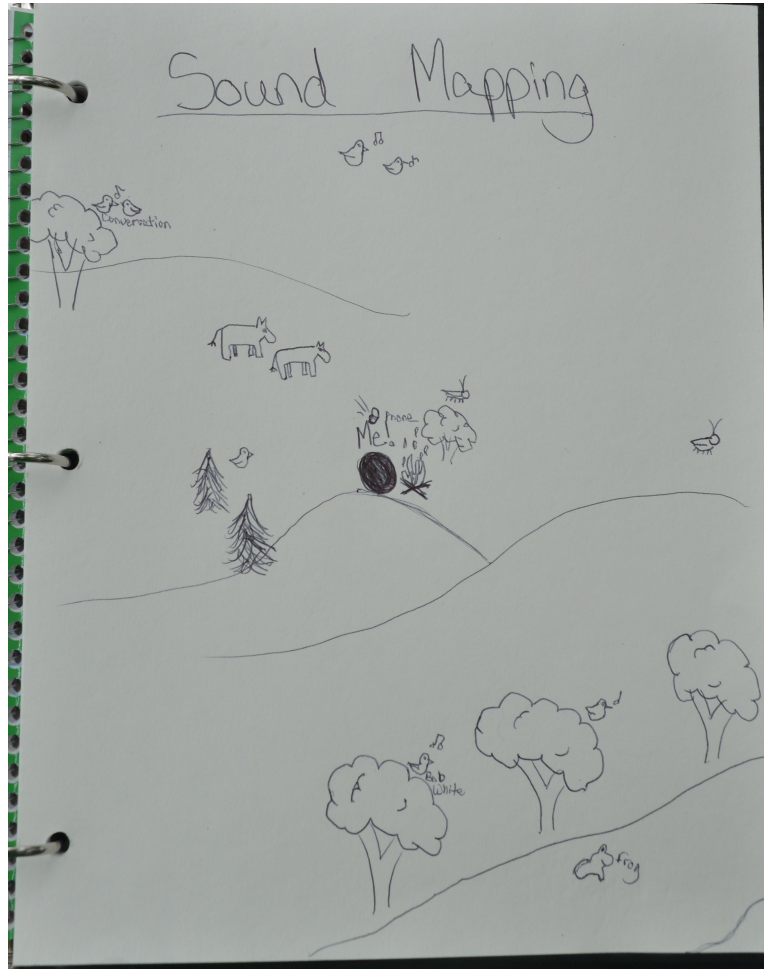
Oh, it's integral to what we're doing. The beauty of the landscapes, the water. I mean, when Wade has a “silent minute”, I think that at some point the kids aren't allowed to talk. All they can do is listen and look, and I think that's such a focusing time. I really think that's become an integral part of every single site that we go to. They hear the birds, they see the grasses, they see the sunlight in different times of day.  
(Richard, interview)

I think Rivers & Prairies does a great job with that. I try to in my sessions that are outdoor. I know Wade does. The “silent minute” is part of that. I don't know if it's ever been worded exactly this way, but sort of Wade's thesis with a lot of his things is “just look at it.” “Look at that.” That's it, “Hey, look.” (Gordon, interview)

Each of these responses reflects what Winona and Wade talked about in terms of building awareness. The “silent minute” is what initiates campers to each new site they visit in the Rivers & Prairies program, and it is the first step in learning how to read. In my field notes, I recorded one of Wade’s exchanges with campers after completing a silent minute on the first day of camp, in which he emphasizes the purpose:

After the silent minute was over, we walked over to the group, where Wade finished talking about the silent minute and why it was important for the campers to listen. He asked, “Did anyone hear the bullfrog? How many times did you hear it?” Several campers responded that they had heard it, and one boy said “seven.” Wade had an exchange with the boy who said seven, telling him the bullfrog only croaked once. He told the campers the point is to listen and experience, not to guess. “Tell what you know.”

In the Watersheds & Plains program, Betty introduced the campers to an extended version of the silent minute called “sound mapping.” She instructed the campers to listen intently for five minutes while nobody talked, and to write down or draw the sounds they heard all around them. They placed themselves at the center of their paper and attempted to locate the position of the sound on their paper in relation to themselves. Many of the campers drew images in addition to writing words for what they heard, making the activity an excellent example of connecting aesthetics with developing literacy of the natural world. The following image shows an example of one camper’s sound map:



What does the development of landscape literacy through aesthetic experiences look like from the perspective of the adults interviewed? One parent of a camper who had attended the camp in its early days stated, “It’s just giving an appreciation for, you know, your local, natural environment and an appreciation of the diversity of and I think in particular, you know, the prairie ecosystem. You know, prior to that experience to me, grass was grass.” This comment directly reflects Winona’s point about awareness and recognition. Another example came from Elaine. She brought up something she had learned from one of Winona’s sessions a previous year: “I’ll never forget the difference between grasses and sedges, because sedges have edges. You know, so that—you remember when Winona told us that, it

was last year in one of the sessions... there's just little things like that, to me, like a tactile thing that you would feel, the edges of a sedge."

Interviews with peer leaders who had themselves been campers, echoed the effect of the program in developing awareness of the natural world; I asked what they believe campers take away from the program:

PL1: More of an appreciation for the outdoors, and knowing how to enjoy themselves and learn out of it.

PL2: Yeah, I think definitely so, because without Rivers & Prairies, I wouldn't be out, "Hey what? You can't put your shoes on and go in the river." Or do different types of things. I wouldn't—without Rivers & Prairies I probably would never do stuff outside. Being a camper, and then being with other kids in the river, that's made it awesome. I know more stuff. Even though I'm not, I can't name plants, in Rivers & Prairies, "Oh yeah! We got to do this! And this is one of the activities we do." So, it's awesome. To get—this is where we live and this is in our backyards.

PL1: I'm going to add to that. I feel like this gives them—what's the word?—something to relate happy experiences to. They see a river and they think, "Oh yeah! That's really cool." And they might forget specifically why they think it's cool, but they have that happy memory associated with that place, which I feel like will help them a lot.

As a form of literacy, it is not necessarily important that campers be able to remember the names of specific plants, but that they make a connection, form a "happy memory," to the local landscape that allows them to realize that they *can* go in the river.

Along with developing awareness of the local landscape is the goal to help youth understand the diversity that exists in the local ecosystem. A transcription of one camper's journal entry captures Wade's intended message of exposing youth to this diversity. Becoming aware of the diversity is part of reading the landscape.

Well, there were plenty of mosquitos today. We bird watched a lot out in the prairies and wet lands. The [river] was flooded horribly, but I haven't found any ticks yet. We saw dickcissels, robins, green herons, killdeers, and lots more (I can't remember most...) I learned that in a prairie [sic], each place is a little different with varying plants and animals. Then we went through a sanded area that led to twin lakes and into a swamp wooded area full of mulberries. I ate some.

The camper recorded that "each place is a little different with varying plants and animals." In my field notes that coincide with the birding session described by the camper, I recorded:

At 7:57, Wade takes us off the path and we head through the prairie. A minute later we stop. "This prairie has a different history than the one we just walked through. The moment we walked in, the bobolink were singing." Wade emphasizes his earlier point with this example, the habitat determines the bird. At 8:01 he says, "Let's keep moving." But then stops when he sees some wild onion and tells the group about it.

In my field notes, I recorded numerous examples of aesthetic moments, particularly my own. But one that stands out as being particularly indicative of the connection between aesthetics and literacy of the land is Wade's session on leaves during the Rivers & Prairies program. The entire session was a fantastic example of how connected aesthetics and understanding the natural world are for him. Here is one entry from my field notes during that session:

Next, Wade told the campers to listen to the sound of the leaves way up high overhead being rustled by the wind. It was a cottonwood, and he commented on its "beautiful sound." He told them that it was the only tree in this area that made that kind of sound because the leaves have a waxy coating. He also pointed out the big heavy texture of the bark on the tree's trunk, and pointed out how tall it was. Looking up, we noticed a tree limb that had broken and was hanging, pointed straight down. He told the campers you don't want to stand under a cottonwood during a storm.

In this brief description he connects the aesthetics (the beautiful sound of the leaves, the heavy texture of the bark) with information about the tree that helps build

campers' awareness and understanding, and perhaps even their appreciation. When Wade talked about education not being many separate disciplines, but everything connecting, the aesthetic component is the connecting thread linking it all together.

### **Outdoor Education is “Real” Education and Opportunity**

That's how I look at our educational process, whether it involve arts or crafts or science. I think it has to edify the place and the people with real stuff. (Wade, interview)

If we talk about sedimentary rocks I want them to be able to know what are the sedimentary rocks out here. What do they look like? When I talk about erosion, I want them to know... what erosion looks like when they drive past it, here, because it makes it so much more real than just the diagram in a textbook. Yeah, and I think with Rivers & Prairies they're literally out in it. Everything they see is based on the place. (Guest presenter/volunteer, interview)

Both of Wilderness Restoration's main education programs involve classroom teachers, either as part of the planning team or as guest presenters. And as most people have experience with formal education, as students and/or as the parent of student(s), it is perhaps unsurprising that comparisons between formal schooling and the outdoor education programs would arise. These comparisons pointed at two intersecting themes: Wilderness Restoration's programs provide youth with opportunity and with a “real” education.

As I coded transcripts and field notes, the words “actually” and “opportunity” began to point toward how staff and guest presenters compared the experiences in Wilderness Restoration's education programs against other educational settings, particularly school. Terms such as “hands-on” and “experience” also coincided with the idea that the educational process in these programs is “real” rather than contrived. And while the terms “real” and “opportunity” were not always the ones

used by participants, they describe well the essence of what Wilderness Restoration's education programs are about. For this theme, I approached data analysis using "direct interpretation" (Stake, 1995, p.75), pulling an instance apart and putting it back together.

The following three examples come from adults who were interviewed, but who have very different roles from one another in relation to the program, making the alignment of their perspectives more poignant. The first was a guest presenter (who also happened to be the parent of former campers and a current peer leader), and whose degree was in science education and worked as the education director for a local power company. He described a session he led (during one of Wilderness Restoration's outreach programs) using turbines to generate electricity in the river with campers:

It's a really good opportunity for us 'cause we can actually be out there in the water, and using that and, you know they get that experience of how to make the turbines work and we actually make electricity with a small generator, so it's a—it's the experience of being out of the classroom and in the outdoors that makes it a very successful event.

Another example came from Betty as she described the education programs. Although she didn't use the term "opportunity", she alludes to it with the phrase, "they haven't really gotten [it] anywhere else," indicating that to learn about the natural world and the local landscape with Wilderness Restoration is an opportunity they are not likely to get otherwise:

I think just general naturalist knowledge too. I think that's something also we aren't seeing much of anymore. And having the kids learn a few things about native plants, native birds, different fish, you know, all sorts of organisms that are native to this area. So then, gaining some knowledge about what's here is, I think, really important, 'cause

it's something they haven't really gotten anywhere else. It's not really in the school curriculum very much, except for a few places. And if it is, they—most of the time they don't get to actually go out and see it.

Elaine described her rotting log session at Rivers & Prairies in comparison to her experience of teaching science in her middle school classroom where she sees the structure of school, with the focus on standards and objectives, being a stark contrast to the structure of the outdoor education programs, which are more open-ended and an opportunity to let youth discover the things that are interesting to them. Further, her description of seeing the stages of the log being broken down and the campers holding “slugs in their hands” points toward the “realness” of this type of education:

Yeah, it's unstructured. And nobody tells them... we're going to look at this rotting log, and you're going to see this, this and this. You know, we're going to learn—they come up with their own ideas about what they want to look at, what is important to them, and I've seen that rotting log, and then, we saw big chunks, and we saw little chunks, and then we saw sawdust, you know, it's like, “Where'd that come from?” You know, making the connection with, “oh, that's what those bugs are doing.” They're breaking it down into smaller and smaller pieces. You know, and letting them do that. And then, you wouldn't believe, twenty minutes was not enough time for them to go dig up bugs and rotting logs... they were in there, you know, in the mud pulling logs up and looking at the fungus, the worms. You know, nobody was like, “Ooh that's gross!” They had the slugs in their hands. You know, it's just something that they wouldn't have normally done. They wouldn't have stopped in the forest and gone, “Ooh, I wonder what lives here.” It really is a time for them to just, I don't know, just get away from that structure, and just, you know, draw their own conclusions I guess. You know, kind of experiment on their own, with nobody telling them where to stop thinking, you know. That this is the only thing you're going to learn here. And then they keep thinking about it, and I know they do, 'cause it's so cool.

The youth involved in the programs further indicated that the programs are “real” education which provide opportunities not available elsewhere. Examples



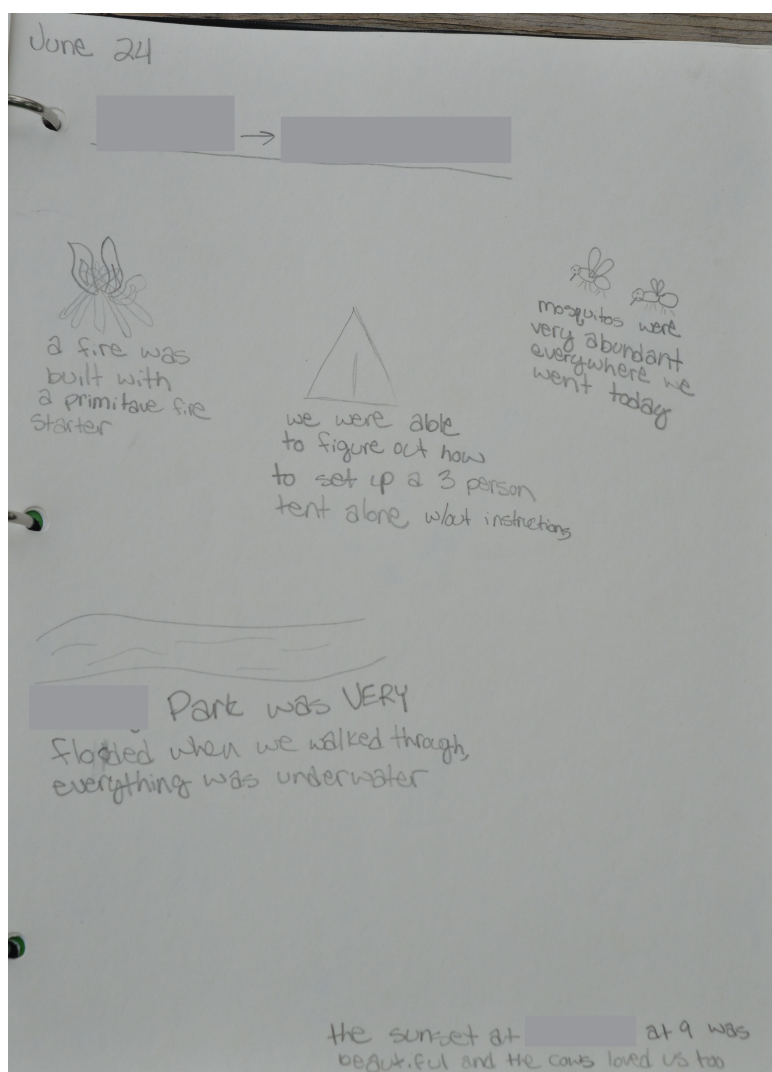
came from both journal entries made by campers in the Watersheds & Plains program, as well as interviews with youth. Following is a description from one peer leader who had also been a camper previously in the Rivers & Prairies program. She described why she thought the program is a great opportunity for youth, using the term “exposed” to indicate this:

I really love visiting the different sites. Growing up in this 'day and age', I guess you could say, there's a lot of technology-based things, and so this camp is awesome because it lets you go out and be in nature all the time. You're exposed to different elements that you're probably not exposed to if you're sitting on the couch at home, playing video games or something. It really just—a lot of kids don't know we have these great places around [the] county, so it's super awesome to show them that there are great places, they should take their families out here because it's so much fun. The activities that I feel like we do are extremely important.

The statement, “kids don’t know that we have these great places,” suggests one way that the programs provide opportunity, and adding that the “activities ... we do are extremely important,” indicates the hands-on nature of the programs to suggest “realness.”

Although the youth didn’t use the terms “opportunity” or “real” or their equivalents in their journals, there were nonetheless descriptions that reinforced these themes. For example, when I came across one journal entry from a camper who mentioned putting up her tent during the overnight camping trip in Watersheds & Plains, she wrote, “we were able to figure out how to set up a 3 person tent alone w/out instructions.” This entry reflects the hands-on, experiential nature of learning in the program, which allows youth the opportunity to gain skills and understanding without being told specifically what and how to do something.

The entry also suggests a sense of accomplishment that comes from figuring out something on one's own, which is another opportunity afforded by the programs.



One final example from the youth perspective came from my interview with the peer leaders who were also campers in the Watersheds & Plains program. The first youth describes the hands-on nature, the “realness,” of learning in the programs, which allows the opportunity to see that learning can be fun. However, as the second comment shows, they sense that opportunity perhaps comes at a cost:

PL1: It's more fun to learn the way that you learn in [the programs].  
Because if you compare it to school, it's like learning that stuff but you

weren't hands-on with that information. In Rivers & Prairies, that's what you do. You're learning about fish, you're looking at fish, you're inspecting fish, you're catching fish. In school you're just looking at a picture, reading about it. But yeah, so it's more fun to—

PL2: I feel like if school was like that, we'd learn a lot more, but at the same time we would not learn as much during the school year because we'd be doing so much more, but like—it's kind of weird—you'd be doing a lot more on one subject, taking a lot longer to learn it, but you'd learn more about that.

The second camper's musings about learning more, but learning less, was echoed by some of the adults who made direct comparisons of the programs with school. They acknowledged that while they may have viewed the educational process in Wilderness Restoration's programs as better or preferable to formal education, they did not believe it was a process that could replace formal schooling. They saw the outdoor education programs as supplemental or complimentary, albeit important. As one of the guest presenters, who had been a high school science teacher but had left the profession, commented:

I think it compliments, it definitely isn't a replacement for your, during the year public education, but it compliments it, and the experience that a kid has in Rivers & Prairies is great... but it can also make that following year so much more productive, because if they get that appreciation from Rivers & Prairies, then they'll learn what they're learning while they're in Rivers & Prairies, but they'll also then be willing to learn so much more... I mean I just wish, like with the students I was teaching in [town], as much as I wished I could be doing Rivers & Prairies with them there in the summer doing that, I just wish they were in some way experiencing that because even if I wasn't the one getting to do that, if they were experiencing it, when they come into my classroom, they're going to have a whole different attitude. At least, I would think so, I don't see how they couldn't. So I think... the impact it has on the formal education can only be good, because it's going to give them that appreciation.

One of the parents I interviewed shared his view about the relationship between formal schooling and the outdoor education programs:

Based on [my daughter's] classroom experience as opposed to Rivers & Prairies... Rivers & Prairies is probably more hands on and more, you know, like you're outside in nature, and you can't do that, the outdoor classroom. That doesn't exist here. I wish it did, but not that you need to be outside all the time. I think there is value in a traditional classroom as well, but having both is really important I think. And that's why we sign her up for it and do it is to have that experience of being outside and learning about that. It really extends what happens in the classroom.

In my field notes I recorded numerous instances that could be construed as opportunities afforded by the program. An example from the Watersheds & Plains program demonstrates how the informal nature of the program provides space for youth to use their ingenuity if they are so inclined, an opportunity that is not given much space in formal classroom environments. This example came from our evening camping out:

At 8:20 the first marshmallows started getting roasted, with lots of s'mores being made. One camper asked if there was any tinfoil because she wanted to make a "banana boat," apparently a warm, ooey-gooey treat that is cooked over a camp fire. She described it to the group, but unfortunately, tinfoil was not one of the necessities brought to the campsite. A little while later, she and another camper were roasting improvised banana boats; they peeled open a banana on one side, stuck it on the roasting stick, added pieces of chocolate and marshmallow, and put it over the fire. Worked out rather well.

Although it could be argued that this particular camper was a creative and inventive person without the experience of being involved with Wilderness Restoration's programs, and it was not the effects of the programs that led to her being inventive in this particular instance, the point is that the informal nature of the program allowed her the opportunity. A more formally structured learning environment would not necessarily have made space for this kind of thinking and doing.

Another example of opportunity from my field notes happened during the Rivers & Prairies program in which I spotted a gall on a leaf during Wade's leaf session at the historic cemetery:

At 9:09, Wade told the campers to go find some leaves so they could do their leaf rubbings. For a few minutes the campers had the freedom to go search, and by 9:14, most were seated on the ground making their rubbings. During the search, I noticed a leaf that had a gall by the base of it where the stem started. I picked it up and asked Betty what it was. She told me, and split it open so that we could look. To her surprise it had not one, but many tiny insect larva. She then started showing the campers who were nearby, explaining what it was.

I include this as an example of opportunity because it demonstrates the opportunity that youth have to interact with experts in the field. While a child might wander around outside looking at leaves on his own, and perhaps even pull open a gall on a leaf, he would not have the biologist standing next to him to help him understand. The interaction with experts is a significant opportunity, and a connection to the "real" world, that youth gain by participating in these education programs. Following is a photo of Betty showing the gall to campers.



The next photo shows a close-up of the leaf gall that Betty opened up to show campers.



## Chapter 5: Assertions

Examples of the repercussions of human-nature disconnection abound in the news media. Just today, I noticed two. The first was a story about tourists at Yellowstone National Park who put a baby bison in their vehicle because they thought it was cold. In the end, the Park Service had to euthanize the animal because its herd rejected it and was creating a dangerous situation as it tried to approach cars and people on the roadway (Peralta, 2016). The second example was an announcement by the Audubon Society of Rhode Island relating a story that they had received a call from a woman who had her trees sprayed for caterpillars and was upset that there were no longer any birds for her to watch. She wanted to know if there might be a connection (Audubon Society of Rhode Island, 2015). Human ignorance of the natural world has serious consequences, as these two examples illustrate. The work that Wilderness Restoration does with its educational programs is important because it helps more people connect with the natural world and to understand its interconnected processes better. With Rivers & Prairies alone, they have educated upwards of three thousand youth, which in the big scheme of things may only be a drop in the bucket, but it translates to more people who are aware of the importance of the natural world. And that alone is positive. The education they do with youth in their programs has the potential to ripple outward as the youth who attend the programs share what they learn with others.

As I reflect on the data collected and analyzed for this dissertation research, and the educational context within which Wilderness Restoration maintains its

work, I make several assertions about their educational efforts and what it means for the field of education research. I had set out to explore issues of concern to the organization and its own view of their programs, as well as to explore the issue of understanding their work through a wider lens, from a perspective that might interest others who have a stake in the larger world of education reform that embraces a Progressive and more pragmatic approach to education. In other words, a view that believes education (of any kind, formal or informal) should be relevant to those it purports to educate. On the issue concerning that the structure of the Rivers & Prairies program has become too restrictive to achieve the fundamental goals of the program, I assert that this is a matter of perspective. On the issue concerning peer leaders' role, I assert that the implemented recommendation to give peer leaders more of a stake in the program appears to have been successful, both from staff and peer leader points of view. On the issue of understanding both of WR's primary education programs and how they add to the literature on place-based education, I make three assertions: 1) aesthetic awareness and appreciation of natural places is fundamental to educating youth about the importance of such places and laying the foundation for a changed view of the world around them; 2) informal education programs, such as Rivers & Prairies and Watersheds & Plains, are necessary supplements to formal education, although they cannot replace formal education; and 3) technology and Indigeneity represent poles between which Wilderness Restoration's programs reside, both of which need to be paid attention as the organization weathers changes in how and who conducts its ongoing efforts to educate future generations about the land.



### **Assertions about Emic Issues: Peer Leaders and R&P Program Structure**

This research began with two emic issues that stemmed from my pilot research on Wilderness Restoration's Rivers & Prairies program. The two issues that emerged during the pilot were concerns over the structure of the program and perceptions about peer leaders. As mentioned in Chapter 1, my research led to being able to make recommendations for the concern over peer leaders, but not for the structure of program. Thus, one assertion about the current research is that the recommendation regarding peer leaders was a success due to the democratic decision-making of the Rivers & Prairies planning team. A second assertion is that the perception of the program being too structured is a matter of perspective, and if any "remedy" to the perceived structure is to be pursued, the answer may well lie in its current structure, particularly River Day.

#### **Peer leader recommendations: Success.**

At the beginning of this current research I had made recommendations to the Rivers & Prairies planning team regarding the role of peer leaders. In the pilot study I had found that while the planning team expressed high regard and value for peer leaders, their actions did not follow. I had essentially discovered that peer leaders had a lot of responsibility for making Rivers & Prairies a successful program, but they had very little personal investment in their role. My recommendation to the planning team was to find a way for peer leaders to be more invested. Based on this recommendation, the planning team decided on a two-fold approach: they invited four senior peer leaders to be part of the planning team, and then revised the peer

leader training day after consulting with these four senior peer leaders. The findings of this current research point to a successful outcome; both peer leaders and staff responded favorably to the adjustments made with peer leader involvement. This outcome is unsurprising for two reasons: first, the planning team has a history of making decisions jointly (democratically, some might say), and this instance was no exception; second, the youth were extended the same privilege as the planning team—to have say in the decisions made about the program, particularly those that involved them and their peers.

Based on both my observations at planning meetings and interviews conducted with the R&P planning staff, I began to understand that the process by which the team makes decisions is one in which they begin with a general problem, they discuss what the problem entails, they begin to offer possible solutions, they narrow down the possible solutions through deliberation, and finally a consensus is reached. Sometimes the process takes a while, and other times it may take only a few minutes. This process works for several reasons. First, according to Wade, from the very first year of the program everyone set aside egos. This meant that they created a culture in which the sharing of ideas was welcomed, and even if a particular idea was not selected at a given point, it could be revisited and implemented at a later time. So, over time, everyone involved knew their ideas counted. Second, everyone in the group has always had a recognized area of expertise. For example, Wilma has been the sole elementary educator on the planning team since the program's inception, and so questions concerning developmental appropriateness of activities always receive her stamp of approval,

so to speak. Since everyone has a recognized area of expertise, everyone has a place, and everyone's place is respected. And last, perhaps the most critical reason the process works is because of Wade's leadership style. He leads with what he calls "grand tour" questions. By posing questions to the group, and continuing to ask questions throughout the process, he guides everyone to come up with their own answers. He does not impose his ideas on everyone else. He makes it possible for the process to happen organically. In a sense, Wade's role is akin to the one that Deborah Meier had to assume when she became the "principal" of Central Park East in Harlem, her now famous democratic school experiment. She writes, "...if the staff's job was not to be technicians carrying out my ideas but collaborators engaged in a shared challenge, then *my* dreams could not always take center stage" (Meier, 1995, p. 129). Wade does not let his dream for Rivers & Prairies take center stage; the dream is always a shared vision and is always in the making. The planning team collaborates and engages in a shared challenge to design the Rivers & Prairies program, and because they welcomed the senior peer leaders into their collaboration process, the result was successful.

**Rivers & Prairies structure: Depends on the perspective.**

Another issue Wade and Winona had concerns about was the structure of the R&P program. From their perspective they thought it was becoming too structured to meet the goals of teaching youth about place. However, they were also concerned about trying to loosen the structure, believing that upper elementary-aged children would not be able to handle more freedom and self-directed interaction as part of program activities. But one of the interesting findings that came out this research is

that many of the other staff and guest presenters did not share their view. This was particularly true for those with experience teaching in school. For the formal (or previously formal) educators who were interviewed, they compared their classroom experiences with those in the program and found far more freedom for both the children and themselves. In the R&P program, as teachers they had learning goals for their sessions, but did not feel they had to stick with a strict “to-do” list like they would in their classroom at school. They did not have to keep children “on-task” in the same sense. And the flip side was that the children could express interest in something and follow it, even if it wasn’t part of the presenter’s session plan. Discovering that the view on structure was a matter of perspective led me to consider the possibility that the answer to the concern over program structure might already exist within the program. The answer to their concerns might be in a closer examination of the structure of River Day and applying lessons learned from how they structure it to the other parts of the program that still seem too structured in their estimation.

As mentioned in Chapter 2, River Day is viewed as fun, but not necessarily “as educational” as the other days of the program. Yet, the way that the day is organized seemingly provides youth with more opportunity to explore freely than do the other days of the program. It is in this free exploration that some of the more important learning happens—youth coming into contact with life in the river, both literally and figuratively. They come to understand that they can enjoy the river, and the life in it, without harming it or themselves. And, with this realization, they discover that their own life is enriched. Harrison (2011) describes this aspect of place-based education

as the “silence of being” (after van Manen, 1990), meaning that “the broader outcomes that it was hoped that students would achieve may remain silent and unseen by educators, occurring at other times or in later years” (p. 91).

River Day is arguably *just* as educational as the other days of the program, and that campers *seemingly* have *more* freedom on that day is likely why both youth and adults do not view it as being as educational as other days of the program. However, comparing the activities on River Day with those on the other days of the program, it is clear that the structure is not so different. First, the planning team creates sessions that are more game-like during the other days to intersperse with the meatier learning sessions. So, throughout the week they are getting opportunities to run around and simply enjoy being outdoors. Second, within many of the so-called meatier learning sessions, campers often have opportunities to learn through play and exploration. The netting sessions, both in the water and in the field, are perfect examples of this. Campers roam around looking for critters, so there is a learning objective for them to achieve, but they are not marched through the process by way of predictable steps. Many of the sessions employ what Somerville and Green (2011) call the “pedagogy of organized chaos,” meaning that presenters know what the end goal is, but are not necessarily certain about how they will get there, and are comfortable in responding to that uncertainty.

The difference between River Day and the others is not that it is less educational; rather, it is that it ends before lunch. Why does this matter? During River Day, youth have time to freely explore within the sessions, just as they often do during field sessions on the other days. However, after lunch on the other four

days of the camp is one time where youth have an opportunity to freely explore (or get into trouble, depending on one's perspective) without the confines of a planned session. To explain, I observed Jessica cut lunch five minutes short during one of the weeks of Rivers & Prairies because as campers finished their lunches they naturally started to do what most children do when they have some free time: play. This made Jessica nervous. So, being the time and schedule keeper, and perhaps wanting to avoid potential disciplinary action, she ended the opportunity for some unstructured freedom. Perhaps the solution is to ensure that the freedom always happens within the confines of a planned session. Here, the peer leaders could be enlisted to assist in creating some structure within which campers could have some freedom. Might they come up with games or other playful activities to engage the campers after lunch, or any other times there might be an opportunity for campers to potentially get into trouble? Additionally, this would be another opportunity to build peer leader investment by enlisting their ideas and help in creating ways to “structure” potential free time.

Structure is a matter of perspective, and the opportunity to allow more or less freedom to youth during the program seems a matter of minor adjustments—in perspective and in planning.

### **Assertions about Etic Issues: Aesthetics; Informal Education; Technology and Indigeneity**

In coming to better understand Wilderness Restoration's two primary education programs, I make three overarching assertions. As a whole, these assertions juxtapose the importance of informal outdoor education against formal

schooling. Indeed, one of my assertions is that informal education cannot replace formal schooling, but they could certainly function more symbiotically for the education of youth as a whole. The other assertions, dealing with aesthetics, technology and Indigeneity, each highlight important aspects about Wilderness Restoration's educational efforts specifically, but also point to larger truths that educational researchers can appreciate.

**Aesthetic awareness and appreciation are fundamental.**

"Aesthetic enjoyment provides an avenue through which people can find focus and achieve balance and tranquility in an increasingly fast-moving world. Moreover, children who learn to love beauty in nature and in the arts are likely to want to support and protect these valuable resources" (Feeney & Moravcik, 1987).

The term "aesthetic" is derived from the Greek *aisthesis*, meaning "perception by the senses" (Berleant, 2015, p. 2). Although the term rightly evokes for many the idea of beauty and what is valued as beautiful, it is the meaning suggested by its Greek roots that I wish to frame the assertion that Wilderness Restoration's education programs are fundamentally about aesthetic awareness and appreciation of the local landscape. While Wade and the others are often heard saying to youth to "just look" with the intent to focus their attention on the beauty that surrounds them, it is a focus on the full sensory experience of the natural environment, including, but not limited to, becoming aware of the beauty that is really at the heart of their educational programs. What does this full sensory experience mean? First, it is a direct, and deliberate, contrast to a more typical educational experience in school, where the experience might be called "anesthetic."<sup>6</sup> Second, it is an

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<sup>6</sup> See Ken Robinson's lecture on Changing Education Paradigms, 2010

acknowledgement that sensation is not only another way of coming to know and understand the world, it is legitimate, just as legitimate as understanding through more cerebral means. Third, it illustrates the connection between experience and education as Dewey envisioned it.

Aesthetic experiences as a means of learning rarely exist in formal schooling, save for the so-called non-academic courses such as art and music, and in the preschool classroom. In such environments, children are allowed and even expected to “build their understanding through natural dispositions for researching worlds *polysensorially*—that is, through all their senses” (Cooper, 2012, p. 299, emphasis original). In most other parts of a child’s schooling, she is generally expected to turn off her sense of touch, smell and taste as a means of learning, and even hearing and seeing are severely restricted. With so much lack of sensory stimulation, it is a wonder a child learns anything of importance in school. WR’s focus on this neglected view of the senses is a deliberate and conscious counterpoint to more formal ways of learning. Just as Reason (2007) argues that the “dangers of conscious rational mind untempered by aesthetics, grace and the sacred” are what is missing from current educational practice, WR’s approach attempts to remedy this through aesthetic awareness, employing a “different kind of educational process which integrates the aesthetic, emotional and spiritual with intellectual understanding” (p. 29).

This leads to the second point about why Wilderness Restoration’s intentional development of aesthetic awareness and appreciation are fundamental to their educational process (and why it should be incorporated on a broader



educational scale)—sensory understanding is just as legitimate as intellectual understanding. Further, to build on Reason’s point, without sensory understanding, intellectual understanding is incomplete. It is insufficient for being fully alive in this world. Of course, this is far from a new idea. Over three decades ago, Robert Bersson (1982) wrote about the dominant “intellectual model” of aesthetic education of the time, calling for a turn toward “the aesthetic experience of sensuous immediacy [which] urges us to allow sensuous experiencing to become a more frequent and natural part of our daily lives” (p. 36). Describing the technocratic culture of the early 1980s that had encouraged the vast majority of the American population to shut off its senses and lean toward conceptual understanding and away from sensuous understanding of the world, Bersson asserted:

The role of sensuous aesthetic education then becomes the deepening and extending of the keyboard of human feeling, rendering it more subtle and complex, helping people to achieve a measure of aesthetic wholeness in a society bent on the technocratic rationalization of all areas of life (p. 38).

What is most poignant about Bersson’s assertion is that because formal education has not heeded this call, we now have large portions of our population that have channeled their basic human need for sensuous aesthetic experience into irrational and emotional thinking, benefiting from neither an intellectual nor a sensory understanding of the world, and certainly not a balance of the two.

If we dig deeper into history yet, we find that Dewey (1916) wrote about the connection between aesthetic experience and habits of mind a century ago. In *Democracy and Education*, his philosophical treatise on school and society, regarding “good taste and aesthetic experience” he pointed out that when one is

exposed to beauty in one's environment as a matter of course, "a standard of taste naturally grows up," whereas a lack of exposure can "starve out the desire for beauty." He was also clear that "conscious teaching can hardly do more than convey second-hand information" and so "taste never becomes spontaneous and personally engrained..." (p. 18). This is why direct experience is critical. This is why the Rivers & Prairies team focuses children's sensory attention on the immediate environment of every field site they go to. This is why Wade and Winona insist that they do not preach about the importance of place and all that it entails; they lead by example. They know,

We rarely recognize the extent in which our conscious estimates of what is worthwhile and what is not, are due to standards of which we are not conscious at all. But in general it may be said that the things that we take for granted without inquiry or reflection are just the things which determine our conscious thinking and decide our conclusions (Dewey, 1916, p. 18).

In this endeavor of experience and its effects on cultivating the mind, informal education programs like those conducted by Wilderness Restoration perhaps have an advantage over formal schooling. But, they do not have to.

Unfortunately, formal schooling will not change course in matters of aesthetic experience anytime soon, if ever. This makes WR's educational work that much more crucial. It is fundamental to their educational approach, and it is fundamental to opening the world to youth so that they might experience it fully alive. By focusing on aesthetic awareness and appreciation, Wilderness Restoration creates the experiences with place that others have found to be true about place-based education: it offers "the opportunity to seed motivation for social or

environmental change, not through imperatives or disaster stories, but through positive experiences” (Harrison, 2011, p. 91).

**Informal education: A supplement, not a replacement, for formal schooling.**

The focus on aesthetics in Wilderness Restoration’s education programs highlights how different the approach to informal education can be in comparison to formal schooling. However, education programs like these cannot, and should not, be viewed as a replacement for formal education. Though Dewey (1916) warned of an “undesirable split” that can occur between experience and learning as the need for formal teaching increases, the danger does not negate the necessity of formal schooling. Informal education programs should be viewed as supplementary, complimentary, and *necessary* partners to schools in the education of youth. Such a view can take multiple forms. First, it can take the form of educational organizations and schools forming partnerships, each bringing to the table what they respectively do best in service to the best possible education for youth. Second, it can take the form of schools adopting teaching and learning approaches that are more active and experiential like those in informal settings. Last, it can take the form of informal education programs identifying how they might align their goals with those of their local school districts.

Partnerships between schools and non-profit organizations like Wilderness Restoration are certainly not a new idea. Honig, Kahne and McLaughlin (2001) devote a chapter to school-community connections in the fourth edition of the *Handbook of Research on Teaching* (however, it is interesting to note that no such

chapter is included in the recently published fifth edition of the Handbook). They note that conceptions of school reform and opportunities for both learning and teaching must recognize that schools alone cannot meet the educational demands of modern life.

Students' opportunities to learn and, by extension, teachers' opportunities to teach in contemporary America require that schools and communities join in new ways—and in some old ways—to accomplish the objectives our society assigns to public education (p. 999).

This idea reflects notions congruent with place-based education, recognizing that learning can and should take place both in and out of school settings, utilizing human and non-human resources for optimal learning and teaching opportunities.

One of the strengths that organizations like WR bring to partnerships with schools is the experiential nature of learning activities. But schools do not necessarily have to partner with such organizations in order to implement these kinds of learning opportunities. Even in day-to-day lessons within the classroom, teachers can find ways to make learning more active for their students, whether by devising games and activities that go beyond filling in blanks on a worksheet, or by being ever vigilant of ways to use the school environment to enhance the curriculum. Of course, many teachers are already aware of these things, but the school environment is not always conducive to such approaches. The teachers in this current research cited having to meet specific objectives, or having to cover so much material in a certain amount of time as hindrances to devising more interactive and experiential learning opportunities for their students at school.

What schools perhaps could really learn from organizations like Wilderness

Restoration is that the structure of informal education programs provide an example of what schools could look like: more time out in the field; more collaboration between adults (teachers, administrators, parents, etc.); more opportunities for older and younger youth to learn together; and more opportunities to learn from experts.

While partnering and learning from informal programs are two ways to view the bigger educational picture involving both schools and informal educational programs, one final perspective is to ask how non-profit organizations like WR might align their educational goals more closely with those of the school. In this dissertation research, Wade and Winona expressed strong caution about the idea, adamant that they would not compromise their own ideas about education in order to satisfy the needs of the local schools. They also felt there was too much “red tape” to deal with, meaning that schools are too bureaucratic for it to be worth the effort. However, non-profit organizations do not necessarily have to compromise their own educational missions. Standards in education have gotten such a bad rap in the popular media that people often judge them without really understanding what it is they are making judgments about. Content area standards are just one kind of standard in formal education, and with the Next Generation Science (NGS) Standards, for example, there are certainly common goals to be found that Wilderness Restoration and the local school district could agree upon. As stated on the NGS website, the goal with the new standards is to “give local educators the flexibility to design classroom learning experiences that stimulate students’ interests in science and prepares them for college, careers, and citizenship”

(<http://www.nextgenscience.org>). While WR has other goals they strive to achieve, they certainly want to stimulate students' interests in science and encourage them to pursue related careers if that is what they are drawn to. And they definitely aim to develop good citizenship in the youth who attend their programs.

Informal education programs cannot replace formal schooling, but they have a necessary role to play in educating today's youth. Both schools and organizations like Wilderness Restoration have to be willing to see how the other fits into the bigger scheme of education and to actively find ways to work symbiotically for everyone's benefit.

**Technology and Indigeneity: The “pulls” between which Wilderness Restoration's programs reside.**

As an organization whose work revolves around land, Wilderness Restoration's pull away from technology is natural. As formal schooling intertwines itself ever more tightly with instructional technology, and daily modern life demands more and more face time with screens, the desire to remove these electronic intermediaries between humans and the rest of the world grows stronger for people like Wade and Winona. This desire is understandable, but may deserve to be redirected. As Richard Louv points out, “The problem with computers isn't computers—they're just tools; the problem is that overdependence on them displaces other sources of education, from the arts to nature” (2008, p. 137). Although it is technology's displacement of other educational sources that WR actively works against, remembering that it is just another tool may help them to

see it as a way to draw certain youth, as well as adults, toward their ultimate goal of getting people out onto the land.

At the same time that formal education focuses on the shiny allure of technology, greater attention is being paid to indigenous ways of knowing and being as part of place-based educational practice. Indigenous knowledge not only represents differences in view from those that have grown from a history of Western colonial roots, but it also represents a stark contrast to technological ways of knowing. For example, Brian Murton (2013) explains that for the Maori and others with an oral-language tradition, language is not about representation, rather it is “part of an active perceptual engagement with the animate and inanimate world, and the world is full of active entities with whom humans engage...” (p. 146). For Wilderness Restoration, and perhaps organizations similar to them, there is an intrinsic draw to indigenous knowledge about the places they teach about, and some of their own views resonate more with these indigenous perspectives than with Western scientific traditions. For example, one of Wade’s overarching objectives in teaching about the local ecosystem is to help youth become aware of the interconnectedness of everything, which is a perspective similar to the way many indigenous groups view the world. Indeed, one of the criticisms about the “Enlightenment metanarrative” is its binary reductionist view of the world, including the idea that humans are separate from nature, which is in direct contrast to “holistic approaches common to Indigenous epistemologies” (Johnson, 2012, p. 833).

Just as indigenous ways of knowing have become a valued perspective for those engaged in place-based and outdoor education, there may be value in seeing technological ways of knowing as yet another perspective. Technology does not have to interfere with youth's ability to interface with the natural world, but can be authentically integrated, as can indigenous perspectives. There is a balance to be struck between these two seemingly disparate poles, technology and Indigeneity, and Wilderness Restoration is poised to strike that balance with the changes and developments in their education programs they will implement as they move into their education center. Reconsidering ways they already use technology, as pointed out in Chapter 4, can be helpful in redirecting this perspective. Examining ways that others use technology to deepen understanding and connection to the natural world is another. A case in point is the Al Kennedy High School in Cottage Grove, Oregon (Smith, 2011), in which numerous examples of technology use are identified as part of sustainability projects students engage in. For example,

In multiple ways, the exploration of water and forestry issues incorporates a mix of labor, data gathering, analysis, and writing that blends the physical and the intellectual in a compelling manner, giving students reasons to use shovels and mattocks as well as GIS devices, water testing equipment, and spellcheck programs (p. 65).

Furthermore, students also learn about "land management techniques of the Native Americans who lived in the region before Euro-American settlement." Although this example provides only one mention of the incorporation of indigenous knowledge and multiple examples of technology use, the case provides a rich example of how both are incorporated authentically into students' education.



As Wilderness Restoration revises and creates new educational opportunities in the near future, the pull toward both Indigeneity and technology present an exciting opportunity to create balanced approaches for the 21<sup>st</sup>-century learner, youthful and mature alike. Fortunately, they have a solid foundation on which to build, given Wade's leadership style and the holistic views the organization already embraces.

### **Summary and Conclusion**

In this chapter, I made several assertions dealing with both emic and etic issues. Concerns about the Rivers & Prairies program structure and the role of peer leaders led me to interpret these as matters of perspective and a need for minor adjustments that are well supported by the planning team's current workings. Further, Wilderness Restoration's educational work highlights points that are critical to the larger educational enterprise of people in a free society. Though their work cannot replace formal schooling, they fill a void in youth's education that the local school system, and conventional schools generally, will not and cannot address anytime soon. They fill gaps in aesthetic appreciation and sensory learning that is much needed for the development of the whole person, and is arguably the best way to develop awareness about the natural world to effectively combat ignorance of it. And, though they are situated between the contemporary pull of technology and the historical pull of indigenous understanding, they are poised to balance these with the development of new education programs and the completion of their education center. Wilderness Restoration's efforts exemplify place-based educational principles that are much needed in a world that is divided, numb and unaware.

Their process demonstrates what a cohesive, sensuous and fully alive existence can be.

## Chapter 6: Conclusion and Future Research Directions

### Closing Vignette

As I sit down to write this final chapter, the Watersheds & Plains program will begin its fourth season in less than a couple of weeks, and Rivers & Prairies will celebrate its twenty-fifth year in a little over a month. It is quite possible that this will be the last year for the program in its current incarnation. Changes have been a long time coming. Of course, change is not the end; it is just change. In my own life, the last year has brought a number of changes, one of which has landed me a couple hours drive from Wilderness Restoration and the place I called home for more than a decade. Even though I was not a native to the town, my roots had grown deep and leaving to make a new place my home was bittersweet. I cannot completely credit my involvement with Wilderness Restoration for the attachment I developed with my adopted home, but it certainly played more than a small part. Fortunately, my new home is in a place where prairies grow, and much about the terrain and culture, though slightly different, is still familiar.

Just today, my husband and I decided to have a picnic lunch at a recreation area situated about fifteen miles from our new home. It was not Roper Park—it had far fewer amenities and no campground. And, of course, it was nowhere near the Chienne River. But it was quiet (read, no humans) and green and filled with natural beauty. As we entered the park, we saw a couple of cement animal sculptures, a turtle and a seal, for children to play on. There was a large picnic shelter, with a single row of unpainted wooden picnic tables lined up and running down its center.

It was situated just north of the gravel drive that formed a modest circle around a grass-covered area for parking. Off in the distance was a smaller picnic shelter with a single table under it. Not far from it was a small wooden outhouse—two-sided, one for women and one for men. Trees had been planted long ago, and provided ample shade from the warm sun. There was a small body of water with a concrete boat landing situated at the west end of the circular gravel drive, providing a peaceful view from the picnic shelter. The water was clear enough to see sunfish swimming near the edge. Tall grasses grew up around its edges the whole way round. It took about an hour to walk the entire perimeter of the water at a leisurely pace. As we sat and ate our lunch of hummus, crackers, cheese, apple and pear, we watched and listened to the swallows singing and swooping. We spotted a blue jay, too. There were dragonflies everywhere. And, a pleasant breeze cooled us and kept the flying insects away. At one point we heard a frog croaking. I said to my husband, “You hear that? You know what it is?” He wrinkled his brow as he thought for a moment. “I should know,” he said. I replied, “It’s a bullfrog.” “Oh yeah!” He said nodding his head. “I forgot that’s the sound they make.” Then I said, “You know how I knew that?” He smiled at me knowingly. “Rivers & Prairies,” I said, grinning.

### **How Wilderness Restoration Does Place-Based Education: A Summary**

In defining place, Tim Cresswell (2015) explains that it is space that “people have made meaningful... [that] people are attached to in one way or another” (p. 12). One might say that the essence of Wilderness Restoration’s educational mission is making spaces meaningful for youth, sharing with young people the places they have become attached to in the hopes that young people, too, will become attached

to those places. At the beginning of this research I set out to learn more about how Wilderness Restoration, a non-profit land trust organization, and those involved in conducting their education programs do place-based education. As outlined in Chapter 4, I learned that the aesthetic components of the program are fundamental; that technology currently plays a reasonably significant role and is worth exploring further; that place-conscious education should put greater emphasis on specific indigenous cultures, a perspective that received more attention from WR in past years; and that their programs offer youth educational opportunities not available elsewhere in the region, including experiences that are much more real than the contrived ones they have become accustomed to in more formal settings, like school. Each of these aspects has the potential to help make spaces meaningful, to help youth find their place, to grow their roots deep, and become attached.

Beyond a general understanding of how Wilderness Restoration does place-based education, I asked several questions. First, what did I learn about the activities that the planning team develops for Rivers & Prairies, and for Watersheds & Plains? While the activities themselves are not necessarily unique, and can be found in variations conducted by other nature-based experiential programs, I did discover that the planning process for R&P is somewhat unusual. It is a collaborative process, one in which each team member has a recognized and respected area of expertise. Wade is recognized as the leader, but his leadership style is such that he allows the process to unfold organically; he does not insist that his ideas are carried out, but is genuinely interested in ideas coming to fruition as a shared vision.

On the other hand, planning for W&P is more of a “Betty show”. It is a contrast to R&P, but not a negative one. Betty generates some ideas for the program and then asks other WR staff for their thoughts and input. That is not to say that it will or must continue that way. Though I did not witness the planning process and only got a description of it from her and Gordon, I caught a glimpse of Wade guiding Betty through a decision during W&P that suggests he is passing on his leadership style to her, in a way that is slow, perhaps not unlike the growth of a newly restored prairie, where nothing is seen for about the first four years because most of the growth is happening beneath the surface; all the plants are putting down deep roots. Then, suddenly, everything above ground starts growing like crazy. This is a lovely metaphor for the transition process of passing on the organization to the next generation. It takes time to grow. It is a process, not an event. But when the day does finally arrive for Betty and Gordon to assume the reins, and Wade and Winona step aside, the new generation will have been growing their roots deep, soaking up the nutrients from their mentors, and ready to continue growing and nurturing Wilderness Restoration and its educational work in their absence.

Second, what did I learn about the field sites and their contribution to the place-based education experiences that Wilderness Restoration provides? The obvious point is that, as Wade mentioned, the places they choose have a certain beauty to them. They have a combination of characteristics that draw WR and their colleagues to them year after year, and that the children seem to intuitively respond to. There are sites they have taken youth to in the past, and they do not stick; they simply do not have the aesthetic draw that other places have proven to generate.

There are sites that they take youth to year after year after year. Those sites never lose their aesthetic appeal. For Wade and the others, these places have what Knowles (1992) calls *geopiety*, a term that “describes a person’s special attachment and reverence for particular places or locations in the environment: places that have specific, highly personal meaning” (p. 9). The field sites are integral to developing the sense of place that WR hopes to instill. They hope that Roper Park, Hansen Prairie, Nelson Ranch, Nixon Creek and Lake Yolanda will become highly and personally meaningful to the campers. Clearly, for those former campers and peer leaders who have returned as adults to assist with the programs or are now sending their own children, they have.

Third, what did I learn about the structure of each program, and the structure of the sessions? Unsurprisingly there are similarities between R&P and W&P, but there are some distinct differences too. The obvious differences include the number of youth who participate, the typical daily schedules, and even the content focus of some of the sessions. However, the programs share a number of common characteristics in their structure that reflect the fundamental educational philosophy of Wilderness Restoration. Both programs are fundamentally structured on the idea of getting youth outdoors and exposing them to places of natural importance. They aim to give youth more than a “drive-by” understanding of the local habitats that are just beyond their own backyards. Connected to this is that both programs are structured to give youth hands-on experiences that aid their learning about such places; they are both fundamentally experiential in nature. And, finally, related to both of these, is that both programs are structured in deliberate

contrast to the typical educational experience of most youth: formal schooling. Not only do youth typically not learn out in the field, nor learn experientially in school, but also they frequently miss out on learning about local content. They do not learn much about local topography and geography, except maybe in the fourth grade when they are required to learn about the history of their home state. They do not learn in any depth about the local wildlife, unless their science teacher sneaks it into the curriculum. They do not necessarily learn about local culture, current and historical, unless they have teachers who are sensitive to the importance of such matters, and like the science teacher, sneak it into the curriculum. However, I discovered that one place they fell short during this dissertation research is in the teaching of indigenous culture. As previously noted, during the data collection phase when it was referenced, it was always generic. Of course, this has not always been the case during previous years of the R&P program, which is evidenced by visits to the ruins of a former Pawnee village site, and with guest presenters who are members of specific tribes (the last presenter they had with ties to a specific tribe was during the 2008 season, now 8 years ago.)

Fourth, what did I learn about the role that program presenters play in advancing the goals of WR's place-based educational mission? While each person I observed and/or interviewed certainly has their own individual preferences for presenting content to youth, I learned that these individual differences were not as important as what they do collectively. Both programs utilize a combination of guest presenters and planning team members to teach about local habitats, local wildlife, local ecosystems, local history, and local culture. Both programs are



interdisciplinary to an extent, although the Watersheds & Plains program emphasizes greater depth of science learning. As Betty's brainchild, the sessions that are created for this program tend to reflect her personal expertise, just as the Rivers & Prairies program sessions reflect the greater diversity of expertise represented among the planning team. Together, the work that each presenter puts into their own piece of the program puzzle creates the mosaic of sensory experiences that help youth build the vocabulary to develop their ability to read the local landscape. They do this by giving youth opportunities to interact with the real deal: herpetologists, wildlife rehabilitators, nature conservationists, and others.

And last, what did I learn about how the staff interacts through the planning process and in carrying out the activities of the two programs? Each person on the planning team for Rivers & Prairies brings their area of expertise, and that expertise is respected. When it comes to enacting the program, the staff have worked with one another long enough that everyone knows what their role is and there is not any of the infighting that can sometimes happen with a group that works together on a project that requires plenty of heavy lifting. Of course, there are minor differences of opinion, such as whether staff not leading a session should be assisting with another session or whether they should be allowed to sit back and relax if they wish. But such differences do not seem to interfere with the fairly smooth running of the program. There is always someone to fill a void, when one arises, without much ado. Each person contributes to the process, both out of habit of established positions and as a group of individuals who are each willing to step up when the need arises.

Of course, none of this is by accident. Wade's leadership style is the glue that holds it together. In describing the early years of the program, he alluded to the fact that members of the R&P planning team could have let their egos get in the way when there was disagreement on an issue. But they did not allow that to happen. Because everyone kept their ego in check, each person found their way into a role that suited him or her, and each person's role is just as important as the next. It is unlikely that this process would have happened as neatly and lasted as long as it has if Wade was a hierarchical thinker, someone who tries to control the process and has the final say on all decisions. But he is not, and does not. No one person's ideas are more important than anyone else's. Everyone's ideas get a fair hearing. And, with this tone set during the early years of the program, as new people have come aboard, they have been inducted into the process rather seamlessly. If the process did not suit them, they would not have lasted. But then, there has not been much moving in and out of team members over the years.

For the Watersheds & Plains program, in which planning is initiated by Betty and then completed in-house, the interaction and planning process is not really as different from Rivers & Prairies as it might sound. While the responsibility of guiding the process largely falls to Betty, with Gordon as her right hand to help take care of many of the logistical matters, it flows from the same kind of symbiotic work relationship that the WR crew have with one another on a daily basis. Like the planning team for R&P, each WR employee has a well-defined role within the organization, which then extends into their work with the W&P program. Everyone performs their role, and no one's toes get stepped on. Although Betty leads the

process for this program, it is Wade's leadership style that indirectly influences it to function similarly to R&P. While Wade led some of the sessions during W&P, most of the time his presence remained in the background, guiding as needed, but most of the work of guidance has already been done. Betty stands on a foundation that was laid before she was born.

### **Directions for Future Research: Technology and Indigeneity**

As this dissertation research painted a portrait of how one organization does place-based education, directions for future research have emerged from the themes, particularly the use of technology in nature-based programs, as well as questions of how best to integrate educating about indigenous culture in a nature-based, place-based program. Following is a discussion of each and some of the research that has already been conducted in these areas. Both hold promise for research as a search of the literature reveals little work done in either.

#### **Technology and environmental education research.**

The question of technology's potential role in connecting youth with nature is an area that is ripe for exploration. Very little research has been conducted in this area, and with the rapid advances in technology, the need for research to keep pace makes it one that could easily span a career. One of the more recent advances that make this area of study particularly germane is the development of mobile devices, or hand-held electronic computing devices, such as smartphones and tablet computers. In recent years, interest in mobile-learning, or m-learning, has transpired because of its advantages to "infuse learning into daily life... [including] flexibility, low cost, minimal equipment requirements, and ease of use" (Liu, Tan &

Chu, 2009, p. 161). The research that has been done in this area thus far includes investigating both using technology simply to generate interest in learning outdoors (Chavez, 2009; Harmon & Gleason, 2009) as well as to examine whether learning outcomes in outdoor education improve with the use of certain kinds of technology (Hung, Lin, & Hwang, 2010; Hsiao, Lin, Feng, & Li, 2010; Liu, Tan, & Chu, 2009).

Two studies completed in the U.S. demonstrate the potential for technology to be an effective means to generate interest in outdoor environmental education for many youth. A study conducted by Chavez (2009) involved a one-day event at Griffith Park in Los Angeles, which included the participation of 38 youth between the ages of six and seventeen. The four activities youth participated in were: a camera safari (taking photos of things that interested them while walking along a trail); etchings (rubblings of natural objects onto paper and rubblings of plastic forms onto foil); geocache (using a GPS device to locate treasures along a trail); and a nature scavenger hunt (using a list, looking for natural items located along a trail and sketching the item in a sketchbook). Based on survey and observation data, the two activities integrating technology, geocache and camera safari, were the most enjoyed activities, although many of the youth also enjoyed the other two.

Another study that examined the use of technology to engage the interest of youth in an outdoor environmental education programs involved ROVs, or remotely operated vehicles, to explore underwater habitats (Harmon & Gleason, 2009). A mixed-methods approach was used to learn about the perceptions of 265 youth, ten to fifteen years of age, at three different informal education programs located on the East Coast and in the Great Lakes region of the United States. Based on the results of

a survey participants completed just after using the ROV, perceptions of it were generally positive, including that they enjoyed operating it and they liked that it allowed them visual access to underwater. Many also reported that they were more interested in water environments after using the technology. Although participants' knowledge and understanding of ocean habitats was not assessed, many of the participants thought that using the ROV helped them to understand nature better. The researchers concluded, "...when using technologically advanced tools responsibly and with existing environmental education programs, opportunities exist for a multitude of positive indirect actions with nature that often lead to increased direct interactions" (p. 140).

While the previous studies only examined interest in technology, several studies in Taiwan demonstrate that effective use of technology in outdoor environments can have a greater impact on learning outcomes than conventional teaching methods. A study conducted by Hsiao, Lin, Feng, & Li (2010) with sixty-two 5<sup>th</sup> grade students examined the use of PDAs (personal digital assistants) equipped with GPS, camera and wireless connection to aid in learning about ecological conservation at the Mangrove Conservation Area in Bali, Taipei county, Taiwan. Half the students used the technology to guide them through the park and to access learning materials on command, while the other half of the students were led by a tour guide, briefly introduced to each learning location, and then used learning materials printed on paper. Both groups were given a pre- and post-test to assess their knowledge, and the researchers found that the group that used technology performed better than the group who learned with the tour guide and paper

materials. While the study omits details about the tour guide's teaching methods, leaving open the question of whether a more competent teacher could have effected greater learning impact, the results of the technology use still lend compelling support to the idea that well-designed technology integration can be a great tool for learning about science issues in an outdoor setting. Additionally, the results of a questionnaire given to the students who used the PDAs in the study showed that the children enjoyed their experience with it, providing further evidence to suggest that technology may help create interest for learning in outdoor settings.

Another study examining the use of PDAs (Hung, Lin, & Hwang, 2010) looked at its use as a formative assessment tool while learning from observations of wetland ecology. Twenty-seven 5<sup>th</sup> and 6<sup>th</sup> grade students went on three fieldtrips over a four-month period to different mangrove wetland locations where they engaged in observation activities using their PDAs to record what they saw. The teacher-researchers designed the observation activities in a layered approach so that the students did guided observation at the first site, independent observation at the second site, and extended inquiry at the final site. The PDA functioned as an integrated learning system, which combined an e-diary, an e-library, and an online feedback guide to assist with observations step-by-step. The results of the study indicated that students made progress in their observations from the first to the third field trip, and by the end most could raise three relevant questions. Also, as indicated by greater autonomous observations, students "were gaining experience of relating their observations to the ecology system" and "demonstrated better persistence in pursuing their own questions" (p. 38-39). Overall, the study showed

that the design was successful in clarifying basic knowledge, enabling students to focus on specific observation details, and extending their inquiry learning.

One final study comes from Liu, Tan & Chu (2009), which tested the design of an “environment of ubiquitous learning with education resources” (or EULER) in which “ubiquitous learning” refers to an environment where learners are provided with timely information and relevant services through electronic means (such as a PDA). The study involved seventy-two 5<sup>th</sup> graders and four natural science teachers, each with at least ten years teaching experience with computer-assisted instruction. All students and their teachers engaged in a four-part course conducted in Guandu Nature Park, a wetland area in Taipei. Half the students used traditional methods (textbooks, notebooks to record information, worksheets, etc.) while the other half used a PDA equipped with all the learning materials needed for the course. All students were pre-tested and post-tested on their knowledge of wetland terminology, geology, environment, and related topics. The results of all learning activities during the course, as well as the post-test, showed students who used the technology scored significantly higher than the students who used traditional learning methods. Additionally, students who used the technology were surveyed about their perceptions of using it, and among other positive outcomes, many indicated that they were motivated by the technology, they enjoyed the problem-solving activities, and they found the multi-media materials for the treasure-hunt game added interest for them. Although this particular study used technology that requires teachers who are reasonably tech-savvy, it nonetheless supports the notion

that well-designed technology can be a positive and effective asset for outdoor learning.

### **Indigenous cultures and place-based education.**

One direction concerning research on the inclusion of indigenous culture as part of place-based education, particularly in nature-based programs like those conducted by Wilderness Restoration, is in questions of how to authentically integrate such teachings. Is it sufficient to give youth a history lesson on the particular peoples who may have once inhabited the land that is being taught about? Is it enough to invite an indigenous guest speaker to tell traditional stories? Should youth engage in making traditional crafts of a particular indigenous group as a way to understand the culture better? Some educators undoubtedly would answer yes to these questions, but we are well past the point when all educators should be answering no.

As a means to illustrate future research directions, there are two examples from the literature involving environmental education that provide inspiration. The first proposes a model of embodied environmental education through theater and Indigenous Knowledge (Lane, 2012). The term Indigenous Knowledge, as Deborah McGregor (2004) points out, is difficult to define. In her discussion of how she teaches the term to her college students, she points to Marie Battiste and James Henderson to clarify:

[Indigenous] knowledge is the expression of the vibrant relationship between people, their ecosystems, and other living beings and spirits that share their lands... To the Indigenous ways of knowing, the self exists within a world that is subject to flux... Indigenous knowledge is *the way of living* within contexts of flux, paradox, and tension,



respecting the pull of dualism and reconciling opposing forces... (p. 399 in McGregor, 2014)

Lane herself points to Gregory Cajete's words to explain, "The concept of embodied environmental education stems from an Indigenous understanding that '[w]e learn through our bodies and spirits as much as through our minds' [quoting Cajete, 1994]" (p. 398). These scholars' words point to the notion that inclusion of indigenous perspectives in teaching about place calls for a recognition of the relationship between humans, land, animals, and all elements living and nonliving, and it is this relationship that informs knowledge.

In Lane's research she interviewed six environmental educators and made observations at three sites involving environmental education for students ranging from elementary to high school. Through the process of coding data, she found "embodiment" to be a "unifying principle" which then served as a lens to identify remaining themes. With interview data from each participant, Lane shows how theater and Indigenous Knowledges connect to create the concept of embodiment in environmental education. Embodiment is

...a process that facilitates personal connections with learning through direct relationships with animals and other beings; that draws on sensory awareness; that demands active physical movement unified with active thinking; that builds on the kinds of play in which children engage naturally; and that translates learning into living encounters for students (p. 404).

The themes Lane then discusses are: role-play and embodiment; embodiment and Indigenous Knowledges; and embodiment and environmental education. With the first theme, a distinction between role-play and embodiment is important because in role-play students remain aware that they are simply playing a

role, but with embodiment “*in the moment of experience*, the player does not differentiate between themselves and their imaginings (their experiences in role)” (p. 405). In teaching about the natural world, Lane sees embodiment as a means of helping youth develop empathy, which is critical for environmental sensitivity. Although WR uses elements of theater during activities in the Rivers & Prairies program, those experiences could be deepened if Lane’s concept of embodiment were applied.

The second theme, embodiment and Indigenous Knowledges, points to the notion that such knowledge “comes directly from relationships with the land” (p. 406). Certainly, this is a concept that WR employs as part of their educational goal, but could the effort be deepened? To what extent does their approach reflect an Indigenous Knowledges idea of relationships and to what extent does it reflect a more Western scientific idea of relationships? Their current practice could be construed as a combination of the two. On the one hand is Wade’s goal of helping youth to see the connectedness of everything, which reaches beyond a mere intellectual understanding of the world and has almost a spiritual aspect to it. On the other hand, when he makes that comment (during W&P) he is teaching youth about water systems from a very Western scientific perspective. It seems reasonable to suggest that integrating Indigenous perspectives into this relationship could enrich youth’s understanding of this point.

The third theme, embodiment and environmental education, led to three considerations for practice: embodiment can help develop empathetic perspectives; it can assist in the goals of helping youth connect with land, place, and self; and it

can help in encouraging youth to incorporate what they've learned into their daily lives. To some extent, WR already encourages the concepts in their educational programs that Lane discusses, but, the use of theater to go beyond role-playing and to encourage youth to embody their learning is one way to make a stronger connection to Indigenous perspectives.

While embracing Indigenous Knowledges through theater is one area for consideration in future research, anthropologist Anna J. Willow (2010) discusses issues with how Native Americans and indigenous culture has been represented in curriculum guides for environmental education. She draws on a decade's worth of experiences as an environmental educator and naturalist educator at three different nature centers, as well as her research and work with Anishinaabe and other Native communities.

After tracing the history of how Native Americans as a topic became incorporated with environmental education, and discussing the problem of the "noble savage" stereotype, Willow critiques several curriculum guides that include lessons on various aspects of Native North American culture. She points out that although the stereotype the guides portray is "positive" because it presents Indigenous peoples as being close to the land and caring for the natural world, the portrayal is always an historical one and connection to contemporary Native American tribes is never bridged. All the lessons leave students with the impression that Native Americans only lived in the past, or that if any exist today, they still live as they did in the past. She terms this portrayal as "Indians of the imagination" (p. 75). Included in this critique is a series called Keepers, which is entirely about

Native North American stories and their connection to scientific knowledge, and is authored by a Native American. However, Willow points out that the series “does not attempt to address the pressing contemporary issues prominent in indigenous American discourse today” (p. 80). She concludes that youth are likely to receive more or less the same message from Keepers as they would from the other curriculum resources she critiqued. They would likely see Native Americans as “admirable and interesting” as well as “invariably ecological,” but that “they are not participants in our complex contemporary world” (p. 81).

After critiquing the curriculum materials, Willow then shares a brief description of a one-day camp with a Native American theme she volunteered to teach, even though her new understanding left her feeling uneasy about doing so. She relates that although the children had an opportunity for “imaginative self-exploration” to envision “themselves in a different time and place,” and to “learn about who they are and what they might someday become,” (p. 82) which is important, she doubts that the curriculum she designed that day has any real promise. She then concludes her discussion with two suggestions for what environmental educators must do to remedy “the absence of the historical, social, and political contextualization of the sort so sorely lacking among educated Americans today” (p. 82).

Willow’s first recommendation is that environmental education programs must include actual Native Americans, to collaborate and ask them to share their knowledge (not preconceived mythological “knowledge”). In the past, WR has invited Native American speakers to R&P, but the last invited guest was nearly a

decade ago. Along with this first point, Willow adds that educators need to “strive to provide full and accurate information about American Indians” (p. 83). Second, the contemporary issues of Native North Americans need to be a part of the education process. Youth need to be made aware of environmental, sociopolitical, and environmental justice issues they face, even if sharing this information is not comfortable. This second point presents some difficulty for an organization like WR since they do not “preach.” Sharing such information could be viewed as political and would potentially alienate some of the parents of youth who attend the program. Additionally, as a place-based program, it would not make sense to share issues unless they were immediate and local.

Willow concludes with inclusion of an additional step, which is to “explore how contemporary Native people practice environmental education” (p. 84). This last point connects back to Lane’s ideas of embodiment and how they might be applied to WR’s work with how they teach science concepts to youth. Incorporating indigenous perspectives on environmental education, as Willow suggests, could enrich their understanding of the natural world from both a Western scientific perspective and from Indigenous perspectives.

Whether either of these two directions for research end up impacting Wilderness Restoration’s work is unclear. But what is clear is their commitment to making local places meaningful, and helping others make such places personally meaningful as well. Integrating indigenous perspectives can help grow the roots of meaning deeper for those they serve, and taking a renewed look at the ways

technology can be integrated may be a way to pull more youth out into the natural world, to find meaning in local places as well.

## References

- Adkins, C. and Simmons, B. (2002). Outdoor, experiential, and environmental education: Converging or Diverging Approaches? *ERIC Digest, August*, 1-7. <http://www.ael.org/eric/digests/edorc02-1.pdf>
- Albracht, C. (2014). *Nature-based field day experiences of elementary and middle school students: An intrinsic case study of developing and maintaining an informal education program*. Unpublished manuscript.
- Allison, P., Carr, D., and Meldrum, G. (2012). Potential for excellence: Interdisciplinary learning outdoors as a moral enterprise. *The Curriculum Journal*, 23(1), 43-58.
- American Institute for Research (2005). *Effects of outdoor education programs for children in California: Executive summary*. Palo Alto, CA: Prepared for The California Department of Education. Retrieved from <http://www.tcoe.org/SCICON/AB1330FinalReport.pdf>
- Ardoin, N. M., DiGiano, M., Bundy, J., Chang, J., Holthuis, N. and O'Connor, K. (2014). Using digital photography and journaling in evaluation of field-based environmental education programs. *Studies in Educational Evaluation*, 41, 68-76.
- Audubon Society of Rhode Island (2015, May 28). [online Facebook post] Retrieved from <https://www.facebook.com/AudubonRI/photos/a.342241075028.345836.1066>
- Bailey, E. B. (2006). Researching museum educators' perceptions of their roles, identity, and practice. *The Journal of Museum Education*, 31(3), 175-197.
- Bailie, P. E. (2010). From the one-hour field trip to a nature pre-school: Partnering with environmental organizations. *YC Young Children*, 65(4), 76-82.
- Ballantyne, R. and Packer, J. (2002). Nature-based excursions: School students' perceptions of learning in natural environments. *International Research in Geographical and Environmental Education*, 11(3), 218-236.
- Berleant, A. (2015). Aesthetic sensibility. *Ambiances* [En ligne], Enjeux - Arguments – Positions, mis en ligne le 30 mars 2015, consulté le 21 mai 2016. URL : <http://ambiances.revues.org/526>
- Bersson, R. (1982). Against feeling: Aesthetic experience in technocratic society. *Art Education*, 35(4), 34-39.

- Bishop, S. (2004). The power of place. *English Journal*, 93(6), 65-69.
- Bogner, F. X. (2002). The influence of a residential outdoor education programme to pupil's environmental perception. *European Journal of Psychology of Education*, 17(1), 19-34.
- Bowers, B. and Fulcher, R. (2010). Seeing potential, pushing possibilities: Thinking creatively about revenue opportunities. *The Journal of Museum Education*, 35(2), 173-179.
- Brooke, R. E. (2015). Suburban life and place conscious education: The problem of local citizenship. In R. E. Brooke (Ed.), *Writing suburban citizenship: Place-conscious education and the conundrum of suburbia* (1-36). Syracuse, NY: Syracuse University Press.
- Brown, M. (2008). Outdoor education: Opportunities provided by a place based approach. Accessed on 1/14/15 at:  
<http://researchcommons.waikato.ac.nz/bitstream/handle/10289/4423/Outdoor%20...?sequence=1>
- Cachelin, A., Paisley, K., and Blanchard, A. (2009). Using the significant life experience framework to inform program evaluation: The Nature Conservancy's Wings and Water education program. *Journal of Environmental Education*, 40(2). 2-14.
- Chavez, D. J. (2009). Youth day in Los Angeles: Evaluating the role of technology in children's nature activities. *Children, Youth and Environments*, 19(1), 102-124.
- Cooper, M. (2012). Is beauty a way of knowing? In C. Edwards, L. Gandini, and G. Forman (Eds.), *The Hundred Languages of Children: The Reggio Emilia Experience in Transformation*, 3<sup>rd</sup> Edition. Santa Barbara, CA: Praeger.
- Cresswell, T. (2015). *Place: An Introduction*, 2<sup>nd</sup> Edition. Chichester, West Sussex, UK: John Wiley & Sons, Ltd.
- Creswell, J. W. (2013). *Qualitative Inquiry & Research Design: Choosing Among Five Approaches*, Third Edition. Thousand Oaks, CA: Sage Publications.
- Dewey, J. (1916). *Democracy and Education: An Introduction to the Philosophy of Education*. New York, NY: Macmillan Publishing Company.
- Donaldson, G. E. and Donaldson, L. E. (1958). Outdoor education: A definition. *Journal of Health, Physical Education and Recreation*, 29(17), 63.



- Durel, J. W. (2010). No mission, no money: No money, no mission. *The Journal of Museum Education*, 35(2), 193-200.
- Erdogan, M. (2011). The effects of ecology-based summer nature education program on primary school students' environmental knowledge, environmental affect and responsible environmental behavior. *Educational Sciences: Theory and Practice*, 11(4), 2233-2237.
- Feeney, S. & Moravcik, E. (1987). A thing of beauty: Aesthetic development in young children. *Young Children* 42(6), 7-15.
- Franco, B. (2010). Advocacy for education in museums. *The Journal of Museum Education*, 35(3), 229-235.
- Graham, M. A. (2007). Art, ecology and art education: Locating art education in a critical place-based pedagogy. *Studies in Art Education*, 48(4), 375-391.
- Harmon, L. K. and Gleason, M. (2009). Underwater explorers: Using remotely operated vehicles (ROVs) to engage youth with underwater environments. *Children, Youth and Environments*, 19(1), 125-143.
- Harrison, S. (2011). "Up at the Shieling": Place-based action research. *Children, Youth and Environments*, 21(1), 79-100.
- Honig, M. I., Kahne, J., and McLaughlin, M. W. (2001). School-community connections: Strengthening opportunity to learn and opportunity to teach. In V. Richardson (Ed.), *Handbook of Research on Teaching*, 4<sup>th</sup> Edition (877-904). Washington, D.C.: American Educational Research Association.
- Howley, A. Howley, M., Camper, C., and Perko, H. (2011). Place-based education at Island Community School. *The Journal of Environmental Education*, 42(4), 216-236.
- Hsiao, H. S., Lin, C. C., Feng, R. T., and Li, K. J. (2010). Location based services for outdoor ecological learning system: Design and implementation. *Educational Technology & Society*, 13(4), 98-111.
- Hung, P. H., Lin, Y. F., and Hwang, G. J. (2010). Formative assessment design for PDA integrated ecology observation. *Educational Technology & Society*, 13(3), 33-42.
- Janovy, J. Jr. and Major, K. M. (2009). Why we have field stations: Reflections on the cultivation of biologists. *BioScience*, 59(3), 217-222.
- Johnson, J. T. (2012). Place-based learning and knowing: Critical pedagogies grounded in Indigeneity. *GeoJournal*, 77(6), 829-836.

- Kemp, A. T. (2006). Engaging the environment: A case for a place based curriculum. In B. S. Stern (Ed.), *Curriculum and Teaching Dialogue, Vol. 8, Part 1*. (125-142). Charlotte, NC: Information Age Publishing.
- Knapp, C. E. (2005). The "I-thou" relationship, place-based education, and Aldo Leopold. *Journal of Experiential Education*, 27(3), 277-285.
- Knowles, J. G. (1992). Geopietty, the concept of sacred place: Reflections on an outdoor education experience. *Journal of Experiential Education*, 15(1), 6-12.
- Larson, L. R., Castleberry, S. B. and Green, G. T. (2010). Effects of an environmental education program on the environmental orientations of children from different gender, age and ethnic groups. *Journal of Park and Recreation Administration*, 28(3), 95-113.
- Liddicoat, K. R. and Krasny, M. E. (2014). Memories as useful outcomes of residential outdoor environmental education. *Journal of Environmental Education*, 45(3), 178-193.
- Lane, J. (2012). Toward a model of embodied environmental education: Perspectives from theater and Indigenous Knowledges. *Journal of Experiential Education*, 53(3), 395-411.
- Liu, T. Y., Tan, T. H., and Chu, Y. L. (2009). Outdoor natural science learning with an RFID-supported immersive ubiquitous learning environment. *Journal of Educational Technology & Society*, 12(4), 161-175.
- Louv, R. (2008). *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*. Chapel Hill, NC: Algonquin Books of Chapel Hill.
- Mang, P. (2005). What is education for?: Connecting learning with sustainable living. *Independent School*, 64(3), 14-18.
- Mannion, G., Fenwick, A., and Lynch, J. (2013). Place-responsive pedagogy: Learning from teachers experiences in nature. *Environmental Education Research*, 19(6), 792-809.
- Manoli, C. C., Johnson, B., Hadjichambis, A. C., Hadjichambi, D. Georgiou, Y. and Ioannou, H. (2014). Evaluating the impact of Earthkeepers Earth education program on children's ecological understandings, values and attitudes, and behavior in Cyprus. *Studies in Educational Evaluation*, 41. 29-37.
- McGregor, D. (2004). Coming full circle: Indigenous knowledge, environment, and our future. *American Indian Quarterly*, 28(3/4), 385-410.

- Meier, D. (1995). *The Power of Their Ideas: Lessons for America from a Small School in Harlem*. Boston, MA: Beacon Press.
- Mercogliano, C. (1998). *Making It Up As We Go Along: The Story of Albany Free School*. Portsmouth, NH: Heinemann Publishing.
- Merriam, S. B. (2009). *Qualitative Research: A Guide to Design and Implementation*. San Francisco, CA: Jossey-Bass.
- Murton, B. (2013). From landscape to Whenua: Thoughts on interweaving indigenous and western ideas about landscape. In J. T. Johnson and S. C. Larsen (Eds.) *A Deeper Sense of Place: Stories and Journeys of Collaboration in Indigenous Research* (139-156). Corvallis, OR: Oregon State University Press.
- Neuman, W.L. (2011). *Social Research Methods: Qualitative and Quantitative Approaches, 7th edition*. Boston, MA: Pearson Education Inc.
- No Child Left Outside Act (2015). <https://www.congress.gov/bill/114th-congress/house-bill/882>
- Peralta, E. (2016, May 16). Baby bison that was placed in a van by tourists in Yellowstone is euthanized. National Public Radio. Retrieved from <http://www.npr.org/>
- Reason, P. (2007). Education for ecology: Science, aesthetics, spirit and ceremony. *Management Learning*, 38(1), 27-44.
- Payne, P. G. and Wattchow, B. (2009). Phenomenological deconstruction, slow pedagogy, and the corporeal turn in wild environmental/outdoor education. *Canadian Journal of Environmental Education*, 14, 15-32.
- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9(5), 1-6.
- Priest, S. (1986). Redefining outdoor education: A matter of many relationships. *The Journal of Environmental Education*, 17(3), 13-15.
- Raiguel, F. (2010). Pulling museum education purse strings. *The Journal of Museum Education*, 35(3), 247-255.
- Rottle, N. D. and Johnson, J. M. (2007). Youth design participation to support ecological literacy: Reflections on charrettes for an outdoor learning laboratory. *Children, Youth and Environments*, 17(2), 484-502.
- Royal Swedish Academy of Sciences. (1978). The Tbilisi Declaration. *Ambio*, 7(1). <http://www.jstor.org/stable/4312338>

- Smith, E. F., Steel, G. and Gidlow, B. (2010). The temporary community: Student experiences of school-based outdoor education programmes. *Journal of Experiential Education*, 33(2), 136-150.
- Smith, G. A. (2002). Place-based education: Learning to be where we are. *Phi Delta Kappan*, 83(8), 584-594.
- Smith, G. A. (2011). Linking place-based and sustainability education at Al Kennedy High School. *Children, Youth and Environments*, 21(1), 59-78.
- Smith, G. A. & Sobel, D. (2010) *Place- and Community-Based Education in Schools*. New York: Routledge.
- Sobel, D. (2004). *Place-Based Education: Connecting Classrooms and Communities*. Great Barrington, MA: The Orion Society.
- Somerville, M. and Green, M. (2011). A pedagogy of “organized chaos”: Ecological learning in primary schools. *Children, Youth and Environments*, 21(1), 14-34.
- Spradley, J. P. (1979). *The Ethnographic Interview*. Belmont, CA: Wadsworth
- Stake, R. E. (1995). *The Art of Case Study Research*. Thousand Oaks, CA: Sage Publications.
- TED Talk (producer). (2010). Changing Education Paradigms. Available at [https://www.ted.com/talks/ken\\_robinson\\_changing\\_education\\_paradigms](https://www.ted.com/talks/ken_robinson_changing_education_paradigms)
- Theobald, P. and Curtiss, J. (2000). Communities as curricula. *Forum for Applied Research and Public Policy*, 15(1), 106-111.
- UNESCO-UNEP. (1976). The Belgrade Charter: A global framework for environmental education.  
[http://portal.unesco.org/education/en/file\\_download.php/47f146a292d047189d9b3ea7651a2b98The+Belgrade+Charter.pdf](http://portal.unesco.org/education/en/file_download.php/47f146a292d047189d9b3ea7651a2b98The+Belgrade+Charter.pdf)
- Wells, N. M. and Lekies, K. S. (2006). Nature and the life course: Pathways from childhood nature to adult environmentalism. *Children, Youth and Environments*, 16(1), 1-24.
- Wiggonton, E. (1986). *Sometimes a Shining Moment: The Foxfire Experience*. Garden City, NY: Anchor Press/Doubleday.
- Willow, A. J. (2010). Images of American Indians in environmental education: Reflections on the politics and history of cultural representation. *American Indian Culture and Research Journal*, 34(1), 67-88.

Zint , M., Kraemer, A. and Kolenic, G. (2014). Evaluating Meaningful Watershed Educational Experiences: An exploration into the effects on participating students' environmental stewardship characteristics and the relationships between these predictors of environmentally responsible behavior. *Studies in Educational Evaluation*, 41, 4-17.

## **Appendix A: A Vision for Wilderness Restoration's Education Center**

The goal is to once and for all convince people that nature isn't trivial.  
It's the basis of everything (Wade, interview).

From its inception as an organization in 1980, Wilderness Restoration has had as one of its primary purposes to be an educational institution. In its Articles of Incorporation, it states as one of its goals: "To provide a center where persons of mutual interest in the natural history, horticulture, agriculture, human culture, sociology and the development and welfare of the Plains may exchange ideas for the benefit and welfare of the members thereof, and the state and the nation." While the idea has been there from the beginning, the physical building for the education center has been in-the-making since 2001, when land was secured for its site, a native loess hill prairie spanning just over a half mile along the Chienne River. The next five years focused on the creation of a design for the building, incorporating an old barn "with impressive geometry, proportions and height."<sup>7</sup> Groundbreaking took place in 2006, and the barn was moved five miles from its original location and positioned onto the foundation in February 2007. Since that time, framing of the interior and many other steps in the process have been completed, which has been a "pay-as-you-go proposition." The education center entered the last of its three fundraising stages in May 2016, outlining the items that still needed to be attended to, including details such as insulation, drywall, flooring and the like. The finished building will include: classrooms with lab space, a large activity/meeting space, screened porch, library, conference room, gallery, kitchen and restrooms.

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<sup>7</sup> This is quoted from a Wilderness Restoration publication.

This appendix presents a vision of what Wilderness Restoration's education center *could* be, pieced together from the ideas of WR's own staff, the Rivers & Prairies planning team, guest presenters and volunteers in both education programs, parents, and community members. In reality, the form that educational efforts take once the education center is up and running will be built out of a process similar to the one that generated Rivers & Prairies in the early 1990's, "a facilitated process of repeated meetings" starting "with a grand tour question... what is the purpose of the education center?" (Wade, interview). After compiling and sorting interviewees' responses to the question, "Where do you see Wilderness Restoration's education programs headed in the next five to ten years?" the purpose of the Education Center may well encompass three components: education, recreation, and revenue generation. These themes reflect WR's own vision for the education center as described in one of its publications: "the Center will provide people of all ages a place to gather, learn, discuss, explore, share, work, think, relax...all while surrounded by a beautiful prairie landscape."

### **Purpose 1: Education**

Many ideas for educational programming were suggested in the interviews. Although the Watersheds & Plains and the Rivers & Prairies programs are not the only educational programming currently offered by Wilderness Restoration, they are perhaps the most visible to those in the local community. Of course, these programs serve children in upper elementary and middle school, and so the desire to see programming that serves people of all ages were common, including adult and family versions of Rivers & Prairies. There were several mentions related to

conservation-focused programs that could span a range of ages, including adding such efforts into the existing Rivers & Prairies program, revisiting and revitalizing former internship programs for high-school aged youth, and various possibilities for adults that might take the form of classes or workshops. On the topic of workshops, Wade alluded to skill- and process-based classes that would be geared toward “making stuff” although he did not give specifics. However, true to his nature, he did discuss several big ideas related to the center’s educational purpose, including the goal to “redefine agrarian culture” with “food and community and self-reliance.” He added that the Center will be a place to “overcome ignorance” and “create actual dialogue” about the ecological challenges that are currently facing the planet and will likely only become more pressing in the years ahead. Such programs will naturally involve a variety of presenters, from near and far, to fill the gaps in expertise possessed by WR’s current staff, much as they currently do for the R&P and W&P programs. One example of making and redefining in the guise of workshops was included in the Watersheds & Plains program the summer after this research took place: campers partook in learning some camp cooking skills using Dutch ovens to make beef stew and peach cobbler, led by guest presenters.

In addition to imagining the kinds of education programs that might occur at the center, there were also visions offered of how the physical space could be utilized to fulfill the educational mission. One such vision is that the center could well become a biological field station for use by college students, visiting scientists, and others interested in conducting field research. Wade and Winona’s own experiences in college at a biological field station in the state were pivotal in their



decision to create Wilderness Restoration, and provided the seed that inspired Rivers & Prairies. A strong desire to recreate that space so that others might have a similar experience, a *life-changing* experience, pushes them to continue pursuing the necessary funds and investigating the logistical means to make it happen. The importance of field station experiences for college and university students is highlighted by Janovy and Major (2009):

a field station is the one place in today's higher education establishment where you can actually play the role of a productive scholar, abbreviated, perhaps, but nevertheless real, in some exceedingly important ways, all the while surrounded by natural beauty (p. 219).

Along with the equipment to create a field station, one community member offered suggestions to create exhibits within the center that would show visitors the kinds of flora and fauna they might encounter once they venture out into the prairie. Such exhibits would not have to be complex, but they might be an ideal way to show those who are more timid about going out into the field what to expect, and as a way to “challenge people to go out and see what they can find” (interview, guest presenter/community member). Along with nature-based exhibits, this community member also discussed the possibility of creating a butterfly house, one that might double as a conservation effort for Monarchs and Regal Fritillaries. And finally, with its location several miles away from the nearest town, the center would be an ideal place for an observatory, or at least for a regular calendar of stargazing programs.

Although not mentioned specifically by any of the interviewees, the author recommends considering the incorporation of an early childhood program into the mix of offerings. After all, it is never too early to capture and foster interest in the

natural world for a lifelong connection. As Wells and Lekies (2006) found in a study they conducted with 2000 adults living in urban areas across the United States,

... participation with 'wild nature' before age 11 is a particularly potent pathway toward shaping both environmental attitudes and behaviors in adulthood. When children become truly engaged with the natural world at a young age, the experience is likely to stay with them in a powerful way—shaping their subsequent environmental path (pp. 13-14).

The kind of program offered for younger learners can take multiple forms, from working with childcare and preschool providers in organizing short field trips to the center, to developing a full-fledged preschool program at the center. Though the latter possibility is unlikely for WR's education center, an article written by Patti Ensel Bailie (2010), an early childhood environmental educator with more than twenty years experience, provides a spectrum of ideas between these two ends that could inspire the most feasible direction for WR to take.

One last idea briefly discussed by Wade and the author, but not recorded, was the initiation of an artist residency program. Like the biological field station concept, the center could be a place to foster research and practice for college students in fine arts fields, professional artists, and others who are interested in combining artistic practices with natural surroundings. A residency program could take multiple forms, as there are thousands in existence around the globe to research and look at for inspiration. Length of time could range anywhere from a week or two, to several months. Artists could simply rent space with no other obligation, or their residency arrangement could include a performance, exhibition, teaching a workshop, or some other engagement with the local community in exchange for space and time to create.

**Purpose 2: Recreation**

Ideas about recreational uses of the education center, and particularly Hansen Prairie on which it is situated, were also discussed by many of the interviewees. Several people discussed developing a more complex trail system than the one that currently exists. With the recent acquisition of Nelson Ranch, this may become a reality sooner than later. Nelson is located about a mile or so down river from Hansen, with private property in between, the owners of which would need to grant permission for easements. Indeed, one of the restoration concepts WR is currently planning includes continuous development along a 34 mile stretch of the Chienne River, which could also facilitate the development of trails, including crossing paths with a “rails to trails” path that runs north and south between two nearby towns.

With the development of a more complex trail system, possibilities for backpacking and camping could also be explored. Whether such activities would only be part of a guided and planned program, or as something that visitors could endeavor on their own will need to be given careful consideration. Of course, for youth programs like Rivers & Prairies, the existence of the education center will make the possibility of overnight camping more feasible, providing a safeguard against inclement weather and other safety concerns. Another possible recreational use, with its proximity to a channel of the Chienne River, is kayaking. Like the backpacking and camping activities, the question of whether to only offer such an activity as part of a program, or whether to allow individuals access on their own will need to be given consideration. Another natural offshoot of developing a more

complex trail system is to explore activities like guided bird walks or other guided trail hikes that focus on a specific aspect of the prairie ecosystem. As one community member and guest presenter commented,

I like the idea that they do, like, Roper Park bird walks and things, but I'm not sure how many people actually show up. My impression is the attendance is often pretty low. And it's a lot of the same people over and over. So, I'm glad that they're doing it, but I think that there are other things that might draw people that they haven't really done much. And so I think exploring that idea (guest presenter, interview).

This same interviewee followed up this thought with the question of how to capture the energy of people who like to fish, hunt, and “drive their Jeeps in the river.” Of course, the latter are some of the folks with whom dialogue about recreational use of the land are most needed. While WR has experience in facilitating such dialogue successfully, it would be worth looking at the Bruce Vento Nature Sanctuary project in St. Paul, Minnesota, as a model for bringing together disparate stakeholders to develop solutions that speak to all parties' viewpoints (Brownell, 2011). This example shows how interests as diverse as those of Native groups, descendants of European settlers, environmental conservationists, economic development interests, and the average community member can work together.

And finally, the idea of cultivating a view of the education center as a place of respite was expressed by another volunteer and community member, who offered a vision of it as a place to “get away from the rat race of life.” Developing the center's recreational uses could very well help to build such an image. Along with seeing the potential of the center to be a place of respite, WR has already identified additional recreational activities, including: fun runs, summer cookouts and music performances, festivals, concerts, readings and plays. A number of these have

already been started, such as an annual early summer fun run and monthly cookout/music gatherings, demonstrating the versatility of the center to accommodate a host of ideas.

### **Purpose 3: Revenue Generation**

Ideas about the use of the education center as a source of revenue for Wilderness Restoration included several possibilities, ranging from those with clear educational intent as well those that would primarily serve to help keep the center financially solvent. On the educational end of the spectrum, Elaine discussed the idea of focusing greater effort on outreach to school groups, home school students and families, and church groups. She sees an opportunity to showcase the education center as an important resource where a greater awareness for responsibly interacting with the natural world can be fostered. At the same time, she is wary of the potential for such efforts to jeopardize their educational integrity in trying to cater too much to such groups' perceived educational needs or views, emphasizing that she believes educators at the center need to have "freedom" and "to have the choices in curriculum, what they want to teach and what they want kids to come away [with]" (Elaine, interview).

Related to outreach, another idea offered involved the suggestion to somehow "franchise" the R&P and W&P programs to other parts of the country. Acknowledging the difficulty of such a prospect, the suggestion could take a couple of forms if WR felt it was worth the energy: 1) a guide covering all aspects of how each program is set up and organized could be written and published so that others could use it as inspiration for setting up and arranging their own programs, and/or

2) workshops could be organized by the WR staff that would largely cover the same information as the first possibility (a guide) but the information would be conveyed face-to-face and hands-on, allowing those interested to experience the possibilities and to be able to ask questions of the very people who created the programs (again to inspire other programs, but not to replicate exactly). There is certainly precedence for both of these suggestions, such as Wiggonton's (1986) *Sometimes a Shining Moment*, written about the Foxfire program in Georgia, as well as Mercogliano's (1998) *Making it Up as We Go Along*, the story of Albany Free School in New York. Although these are not guides, per se, they do provide memoir-type recollections to inspire others who might want to try similar endeavors.

At the other end of the spectrum, the education center could be utilized as a source of revenue by renting the facility to various interests as a place to hold retreats or celebrations. For example, corporate and other groups could rent the center as a place to hold retreats for reorganizing and re-energizing its staff. The center could also be rented out for private celebrations such as weddings and family reunions. Additionally, offering a variety of nature-related birthday party options could be yet another revenue source, as well as being a way to introduce young people to the potentials of outdoor experiences. The bottom line, so to speak, as John W. Durel (2010) makes evident in an essay on the relationship of money and mission, is that the financial viability of nonprofit organizations is based on the ability to "deliver a portfolio of programs, services, and products that others value enough to give it money in return.... The greater the perceived value, the greater the return" (p. 195-6).

## **Concluding Thoughts and Recommendation**

The building and creation of Wilderness Restoration's education center has been no small undertaking. To witness it enter its final stage of completion is exciting and infuses everyone involved with the giddy energy of a small child joyously splashing in rain puddles for the first time. Though many ideas and possibilities exist for its use, it will be necessary to limit the focus so that the energy to bring them to fruition does not spread too thin. To manage and bring forth any of the possibilities into lasting reality the addition of a permanent staff member to oversee the growing educational aspects of Wilderness Restoration's work is recommended. To guide the vision of so many possibilities requires specialized knowledge, expertise, and experience with public programs.

There is any number of reasons why an education director position should be added, and the work not divided solely among existing staff, not the least of which includes that a recognized educational expert adds validity to the work of the education center and helps to create and maintain its image as a serious educational institution. Following is a discussion on further points to consider.

First, with the addition of programs, it makes sense to have one individual overseeing the whole process to maintain an overarching vision for the educational component of the organization. As Bailey (2006) points out in her research regarding the work of science museum educators, whether working for small or large institutions, "a considerable portion of their work time is allotted to the shaping, designing, supporting, organizing and oversight of programs" (p. 180). It's conceivable that such a position with Wilderness Restoration could be very similar

in nature to science museum educators' work. As such, part of this role could be to focus on outreach, and as Franco (2010) points out, an educator can focus on knowing and understanding curriculum standards so as to best communicate how WR's education programs can meet the needs of school groups. Relatedly, an education director could also focus his or her time on researching the needs of other groups they might reach out to, again being the liaison that bridges the needs of such groups with what WR can offer. Further, such a role could also entail other similarities with museum educators, such as pursuing funding for projects and programs; attending to marketing, budgeting, and management of programs; conducting evaluation and research; and supporting the work of the organization as a whole (Bailey, 2006, p. 180).

Second, in leaner financial times, an education director will know the details of all education programs and will be able to see where to "nip and tuck," or which programs to save and which can be cut without too much overall damage (Raiguel, 2010). Of course, an education director's role in financial matters could also assist in seeing revenue possibilities through education. As Bowers & Fulcher (2010) point out,

creating initiatives that have the capacity to generate revenue is in fact second nature to many museum educators [because] [e]arning income from these programs requires identifying those activities that provide the most "bang for the buck," recognizing the value of those programs, and collaborating with others... to make sure that the program is bringing in the amount of money it's worth (p. 178).

One final reason to consider the addition of an education director is because the work that WR does is important to the bigger picture of education, and such a



position is ideally situated to advocate for the importance of informal learning within the larger context of education reform (Franco, 2010).

Regardless of how Wilderness Restoration moves forward with its education center and the growth of its educational mission, it is certain that based on the previous thirty-six years of its work, they will continue to successfully carry out their mission of restoring and maintaining native prairie in the heart of the Great Plains, and to educate young and old alike about the importance of these places. They may further their mission with any combination of the ideas put forth in this document, or with other ideas entirely. To be sure, there is no shortage of possibilities. But, the completion of the education center's physical structure, as well as its symbolism as a gateway to further educational possibilities, stand as a testament to Wilderness Restoration's ability to accomplish all that it sets out to do.

## **Appendix B: Interview Protocol Questions**

### **Wilderness Restoration Staff and Program Planning Team**

1. Tell me about the program and its educational mission.
2. Describe program activities and how you view their educational impact.
3. Describe how program activities are planned.
4. How would you describe education in WR's programs in comparison to other educational settings?
5. Describe any changes that have taken place since first getting involved?
6. Describe your presenting style or approach to presenting.
7. Describe how educational programming develops a "sense of place" in its participants.
8. How do the programs encourage a sense of the aesthetic in its participants?
9. Where do you see WR's education programs headed in the next five years? Ten years?
10. What do you like best about being part of R&P (and W&P)? What changes would you like to see, if any?

### **Guest Presenters**

1. Tell me about the program as you viewed it as a camper, as a peer leader and as a guest presenter. In what ways do you view it the same, and in what ways has your perception of it changed?
2. Describe program activities you've been involved in or observed and how you view their educational impact.
3. As a guest presenter, how do you prepare for the session(s) you lead?
4. How would you describe education in WR's programs in comparison to other educational settings?
5. Describe any changes that you have noticed in the program and any thoughts you have about those changes?
6. Describe your presenting style or approach to presenting.
7. Are you familiar with the term "place-based education"? WR uses the term "sense of place" on their website to describe their goal for their education programs. Describe how R&P develops a "sense of place" in its participants.
8. How do the programs encourage a sense of the aesthetic in its participants?
9. Where would you like to see WR's education programs headed in the next five years? Ten years?
10. What do you like best about being part of R&P (W&P)?

### **Parent**

1. Tell me how you came to know about the program.
2. Can you tell me about your overall view of the program?
3. Describe program activities that stand out to you and how you view their educational impact.
4. How would you describe WR's programs in comparison to other educational settings, such as school or other day camps?

5. Have there been any changes in the program since your child first attended? If so, what are they and how have you viewed those changes?
6. On WR's website they describe the goal of their education programs as developing a "sense of place" in its participants. Can you describe any ways that you may have seen this in your own or other children in the program?
7. From your perspective, do the programs encourage a sense of the aesthetic in its participants? If so, how?
8. With the construction of the education center, where would you like to see WR's education programs headed in the next five to ten years?
9. What do you like most about the R&P (W&P) program? What changes would you like to see, if any?

### **Peer Leader**

1. Tell me what being a peer leader is like for you. What are your biggest challenges? What's the best part?
2. What did you think about being selected to be on the planning committee? What was the experience like?
3. What did you think about peer leader training? What was that like for you?
4. Were you an R&P camper? If so, how is being a peer leader similar? How is it different?
5. What advice would you give to a first year peer leader?
6. Finish this sentence. River Day is....

### **Peer Leader / W&P Participant**

1. Tell me what being a peer leader is like for you. What are your biggest challenges? What's the best part?
2. You were also involved in the W&P program. How was that experience similar and how was it different from being a peer leader in R&P?
3. What did you think about peer leader training? What was that like for you?
4. Were you an R&P camper?
  - a. If so, how is being a peer leader similar? How is it different?
  - b. How is being in the W&P program similar, and how is it different from being an R&P camper?
5. What advice would you give to a first year peer leader?
6. Finish this sentence. River Day is....