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THE TRADITIONAL WILDERNESS CONCEPTION, POSTMODERN CULTURAL  
CONSTRUCTIONISM AND THE IMPORTANCE OF PHYSICAL ENVIRONMENTS

By

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Thesis

presented in partial fulfillment of the requirements  
for the degree of

Master of Arts  
In Philosophy

The University of Montana  
Missoula, MT

December 2008

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## The Traditional Wilderness Conception, Postmodern Cultural Constructionism and the Importance of Physical Environments

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Recently, a heated debate has emerged between advocates of the traditional wilderness concept and those who believe that this concept is merely a cultural construction. The traditional wilderness conception viewed wilderness as an objective place separate from humans that is defined by being primarily shaped by natural forces, possessing natural origins and being free of human inhabitants and structures. This view culminated in the definition of wilderness featured in the 1964 Wilderness Act.

A postmodern critique of the traditional wilderness conception began in the 1980s. In this view, the traditional wilderness conception is thought to be a product of Euro-American culture rather than an objective place. This thesis mainly focuses on William Cronon's argument for the cultural construction of wilderness. The traditional wilderness conception is criticized for two main reasons. First, this conception ignores the historic presence of native people in areas considered wilderness. Second, it does not account for the extent to which native people have managed the land through practices such as prescribed burning.

This thesis is an attempt to mediate between Cronon's cultural constructionist view and the traditional wilderness conception. This is done by examining the role of physical environments and interactivity in concept construction. By viewing the wilderness concept as being the product of both interactions with physical environments and culture, some of the conflict is resolved. In this way the wilderness concept is seen as reflecting the texture and structure of the physical environment of wilderness areas. This unique texture and structure suggests a distinct wilderness environment that is different from human environments. However, culture still plays a prominent role in the construction of this concept, and should be acknowledged. This view also allows for some human presence and management through fire without ruining the wilderness character.

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## INTRODUCTION: THE GREAT NEW WILDERNESS DEBATE

*It is about a concept, the “received wilderness idea”- that is, the notion of wilderness that we have inherited from our forebears.*

*Michael P. Nelson and J. Baird Callicott<sup>1</sup>*

The publication of the book *The Great New Wilderness Debate* signified an official shift in the argument over wilderness. Traditionally, debates over wilderness were centered on issues of land use and ethical value. The questions being argued were about the appropriate use of land and whether humans possessed ethical obligations to non-human animals and ecosystems. Was designating large tracts of wilderness appropriate use of public land? Did this exclude loggers and farmers? Are wilderness areas valuable in themselves or are only their natural resources valuable? Although these questions produced heated responses, both parties assumed the existence of wilderness as a particular environment. Wilderness was real. The validity of the wilderness concept itself was not questioned. *The Great New Wilderness Debate*, as described above by its authors, is about the validity and meaning of the wilderness *concept* presented in a historical context. The book progresses through the works of traditional wilderness writers to the recent postmodern perspective. The questions raised along the way inquire into the status of the wilderness concept. Is wilderness an objective place identifiable in the world or is wilderness a myth originating in the currents of Western cultural history? Does considering wilderness an uninhabited place disregard the people who have traditionally lived on these lands? In short, the new wilderness debate is about the concept rather than the value of wilderness or our ethical obligations to these places.

My examination is part of this new wilderness debate. I too will be discussing issues involving the wilderness concept rather than land use, values or ethics. My focus is on ontological and epistemological concerns about the wilderness concept and the way this concept refers to the physical world. I argue that the traditional wilderness concept and the view that

wilderness is a cultural construction construe the wilderness concept in ontologically divergent ways. The traditional wilderness conception conceives of an objective wilderness that is separate from humanity and its works. Wilderness is an existing place that possesses unique characteristics. The cultural constructionist's conception of wilderness considers it a myth, and tends to consider the human-nature relationship as organic rather than divided. There is no such thing as an ontologically separate objective wilderness. The first focus of the thesis will be on this conflict between the traditional view of wilderness and cultural constructionist's view.

The second focus is on mediating between the traditional wilderness concept and the belief that this concept is simply a construction of western culture. I feel that there has been a need for an approach that attempts to take both sides into account. The cultural constructionist is right that culture plays a role in the creation of concepts. Many studies have shown that culture and language structures and influences many of our beliefs about the world. It is also true that humans and nature are intricately interconnected. However, wilderness does not seem to be completely a myth. Wilderness areas seem to be places that possess a unique character and texture, and are identifiable in the world. I will try to find a middle road between these two views.

The first chapter discusses the traditional wilderness conception. This wilderness conception was developed during the nineteenth and twentieth centuries and became solidified in the 1964 Wilderness Act. This conception conceives of wilderness as separate from humanity, culture and civilization. Wilderness was defined essentially by its exclusion of humans. In the second part of this chapter I will discuss some of the central figures that contributed to the wilderness conception. These individuals are John Muir, Aldo Leopold and Robert Marshall.

The second chapter centers on recent critiques of the traditional wilderness conception. This chapter's main focus is on post-modern cultural constructionist views of wilderness. I will discuss some arguments suggesting that the wilderness concept is a myth created by western culture. The central author I will discuss is William Cronon and his essay "The Trouble with Wilderness." This chapter will also include two sections on the human modification and presence in wilderness areas. Both have been fundamental to the postmodern wilderness critique.

In the third chapter I will attempt to mediate between these two views by stressing the importance of physical environments in the construction of concepts. There have been a number of recent works arguing the importance of embodiment, interactivity and physical environments in the construction of concepts. I apply these ideas to the wilderness conception and argue that the wilderness conception is also derived from interaction with wilderness environments. The unique texture and shape of a particular natural environment directly influences the way we think of it. I suggest a stronger link between physical environments and concepts than typically acknowledged by cultural constructionists. However, I do not deny the role of culture in shaping concepts and believe that cultural influences are often present in our conceptions of wilderness.

Before I begin I would like to acknowledge the great debt I owe to J. Baird Callicott, Michael P. Nelson, Christopher Preston and N. Katherine Hayles. By putting together *The Great New Wilderness Debate* Callicott and Nelson introduced me, and a mass of others, to this interesting debate that has emerged in recent years. This book presents the debate in a sprawling way and includes many different perspectives on a concept that is often used without thought to its meaning. The book convincingly conveys the fact that the wilderness concept is more complex than most appreciate. Second, the work of Hayles and Preston opened my mind to a different way of thinking about concept formation. Their ideas and insights allowed me to think

about wilderness in a way that might help to resolve the clash between the traditional wilderness concept and postmodern cultural constructionism. These authors' works are invaluable to anyone interested in the concept of wilderness.



## CHAPTER ONE: WILDERNESS AS SEPARATE FROM HUMANITY

*A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain.*

*The 1964 Wilderness Act<sup>1</sup>*

During the nineteenth and twentieth centuries a particular conception of wilderness emerged in America. This conception perceived of wilderness as a valuable place that was separate from humanity and civilization. In part it was valued by virtue of being outside of the human world. Wilderness was something radically different from civilization and other human works. This view primarily defined wilderness by the way it is shaped by natural forces and free from human presence and manipulation. I will refer to this conception as “traditional wilderness” throughout this thesis. I use the term “traditional wilderness” to contrast this view with the postmodern conception of wilderness. The postmodern conception of wilderness is the main theme of the second chapter. In this chapter I will look at the traditional wilderness conception and emphasize the way it tends to separate wilderness from humanity. First, I will discuss what I mean by separate, specifically the term “ontologically separate.” Second, I will describe some traditional wilderness characteristics that separate wilderness from humanity. Third, I will look at three figures that contributed to this conception: John Muir, Aldo Leopold and Bob Marshall.

### Wilderness as Ontologically Separate

First, I would like to clarify what I mean by wilderness being separate from humanity. Wilderness can be considered as separate from humanity in two main ways. First, it can be separate in relation to value. Second, wilderness can be ontologically separate from civilization and culture.

Many of the authors that defined wilderness (Muir, Marshall and Leopold) believed wilderness had an intrinsic value separate from a value given by humans. Values given by humans are often instrumental and anthropocentric. That is, something is valuable to the extent to which it fulfills a human need or want. Wilderness has an instrumental value in the trees it produces that can then be used to create various artifacts (houses, paper, furniture). To a logger or a miner the value of wilderness is primarily instrumental. However, scenic value is also anthropocentric and instrumental because its value is based on human enjoyment. Intrinsic value, on the other hand, is value that something has in itself. Some people consider trees to have an intrinsic value by virtue of being complex organisms. A tree is then valuable regardless of its usefulness. Many environmentalists have supported this position. E.O. Wilson once stated, “wilderness has virtue unto itself and needs no extraneous justification.”<sup>2</sup> A wilderness with intrinsic value has a worth independent of its instrumental usefulness. Wilderness is then separate from humankind in regard to its value.

The second way that wilderness can be considered separate is ontologically or separate in its being. Ontology is a branch of philosophy, specifically metaphysics, which is defined in the *Oxford Companion to Philosophy* as “the science of being in general, embracing such issues as the nature of existence and the categorical structure of reality.”<sup>3</sup> Ontology has also been described by philosophers such as Russ Shafer-Landau as a “list” of what exists.<sup>4</sup> Ontology in this sense is conceived as a type of inventory. In short, ontology is an inquiry regarding what exists, what differentiates these existents, and the relation between these entities.

The discussion over the existence or non-existence of God is a good example of an ontological debate. In these arguments the point of disagreement is whether or not God exists. If we think of ontology as providing a list of what exists, some believe that God is on this list

while others do not. Moreover, of those who accept the existence of God, some conceive of God as transcendent and standing outside the physical world, while others conceive of God as being the physical world itself (trees, rocks). Ontologically, the former believes in two main existing things, the world and God, while the latter sees these things as one.

Another example of ontology can be found in the sciences. An excellent instance of this is found in taxonomy. Questions over different species and what distinguishes them from each other are all questions regarding the categorical structure of existents. An example of this was given by Mark W. Brunson in an article “Managing Naturalness as a Continuum.” Brunson describes the way in which the great tail grackle has been taxonomically classified in various ways. He states, “In the past 100 years, this bird was demoted from a separate species to a subspecies of the morphologically similar boat tailed grackle (*Quiscalus major*), and then promoted back to its own species after Selander and Giller (1961) showed that the two grackles do not interbreed in Gulf coast states where they are sympatric.” Moreover, this particular bird was “moved from the genus *Quiscalus* to a new genus, *Cassidix*, then back to *Quiscalus*; and from the family Icteridae, blackbirds and orioles, to a much larger family, Emberizidae, which also includes New Work Warblers and sparrows.”<sup>5</sup> The question trying to be answered in these studies is what exists and how are these existents different from one another? That is, how many species are there, what are the characteristics of these species, and in what way do these differences designate two different biological groups? These are all ontological questions.

Similar to the way certain characteristics define a particular bird as a grackle, and separate it categorically from other animals, wilderness has characteristics that define it as a place separate from humanity. The conception of wilderness that emerged during the nineteenth and twentieth centuries thought of wilderness in this way. That is, the traditional wilderness

conception viewed wilderness as possessing certain attributes that, like the grackle, separate wilderness into its own category. When these qualities are absent then an area is no longer wilderness.

Conceiving of wilderness as an ontologically separate place is in contrast to a cultural construction model of wilderness. This view holds that concepts of wilderness are constructed within a specific culture or society. An objective wilderness separate from humanity does not exist. Instead, there are many different conceptions of wilderness constructed by various human cultures. Each cultural construction is thought to reflect values of a given people, rather than an objective place. Wilderness is not ontologically separate from humanity but is constructed as a concept by humanity itself.

In many ways, the thoughts, opinions and conceptions of wilderness developed by Muir, Marshall and Leopold are displayed in the 1964 Wilderness Act. The Wilderness Act, through the work of congress, designated federal land as Wilderness. The definition adopted in the act echoes the general sentiment of the traditional wilderness conception. This conception defines wilderness as ontologically separate from humanity. The Act states:

A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic or historical value.<sup>6</sup>

It should be somewhat clear that the wording of this definition separates wilderness from humanity. For example, in the opening line wilderness is contrasted to humans and their "works." This evidently points toward an assumed separateness of wilderness from humanity.

The Act then further defines wilderness as “an area where the earth and its community of life are untrammelled by man, where man is a visitor who does not remain.” In this passage “untrammelled” means that wilderness is not restricted or restrained. So, wilderness is a place unrestricted or unrestrained by humans. This word was specifically chosen by the Howard Zahniser, the author of the Wilderness Act. Zahniser thought that this somewhat uncommon word was essential to the definition of wilderness contained in the Act. According to the biography of Zahniser, he “took it [untrammelled] to mean ‘free, unbound, unhampered, unchecked,’ and so it implied that wild lands were not ‘subjected to human controls and manipulations that hamper the free play of natural forces’”<sup>7</sup> Thus, a wilderness untrammelled by man is separate from humans.

The Act also, according to Peter Landres and David Cole, describes wilderness as both wild and natural. Both of these concepts also seem to separate wilderness from humanity. The wild aspect is derived from the characterization of wilderness as “untrammelled by man.” Wilderness is a place that is free from manipulation by humans. Thus, wilderness refers to the free play of natural forces without human interference or influence.

The Wilderness Act also states that the “primeval character” and “natural conditions” of wilderness should be preserved. In this way the natural aspect of wilderness is being emphasized. Naturalness mainly describes the native ecological systems that comprise an area. Cole defines naturalness as “what would have existed in the absence of post-aboriginal humans.”<sup>8</sup> Naturalness refers to the way an area existed (its species and their interconnections) before the influence of Euro-American settlers. For example, the relationship between the white bark pine, the Clark’s nutcracker and the grizzly bear in the northern Rockies that existed before European settlement represents a natural state. A particular interconnectedness developed

between these species over time. This bond was broken by foreign diseases and fire prevention. Both of these disturbances were human caused.

In order to better describe the way that wildness and naturalness are different it is important to look at how these qualities come into conflict over the issue of restoration. Those who advocate restoring a wilderness area will usually argue from the perspective of an area's naturalness. They believe that returning a particular ecosystem to its "native" or "natural" state is important to having authentic wilderness. For an area that has been over run with a foreign plant (such as knapweed) to be restored to its "native" condition requires human intervention. People will need to remove the plant by spraying or pulling these weeds. Such intervention would, however, violate the "wildness" of an area. That is, if humans intervene and return the area to its state before humans introduced knapweed then the area is further modified by human activities. Some advocates of wildness would support letting the area exist with non-native plants in order to preserve its wildness. They believe that any additional human interference jeopardizes that area's wilderness quality. This conflict between wildness and naturalness has been at the center of many arguments over how best to manage our federally designated wilderness areas.

Despite this contrast, both concepts of wildness and naturalness still seem to embrace wilderness as being *ontologically* separate from humankind. First, wildness refers to being free from human manipulation. Therefore, for an area to be wild, and thus wilderness, humans cannot influence or interfere with the natural processes. Humans are then separate from wilderness. Second, naturalness refers to the native ecological state of an area. The term "native" refers to an area's species composition before the influence of something, presumably humans. Although some may advocate human intervention in order to restore an area's

naturalness, the native system that they want to recreate is a system that emerged separate from humans. In fact, human influence is what changed the area in the first place. The restoration of an area to its natural state is essentially trying to re-establish the ontological status of the area as separate from humanity.

The distinction between naturalness and wildness, as well as the acknowledgment of their role defining wilderness, is interesting and illuminating. However, these two attributes, defined in this way, were not often referenced directly by those who described the traditional wilderness conception in the era before the Wilderness Act (Muir, Leopold and Marshall). There are other qualities, interrelated with wildness and naturalness, which should also be mentioned. In fact, these qualities are, in a sense, an extension of wild and natural. I derived these characteristics from well-known wilderness literature (Muir, Marshall, Leopold, etc.) and from the wording of the definition of wilderness in the Wilderness Act. I found the following three characteristics to be the most common, and also the most central to the traditional wilderness conception. First, wilderness is an area primarily acted on by natural forces. Second, wilderness is a place with natural origins. Third, wilderness is a place without permanent human inhabitation or human structures. These qualities are in a sense more of an extension of the “wild” aspect of wilderness than its “natural” quality. However, issues such as the importance of native biological communities, central to the natural quality of wilderness, are still present. These three characteristics will be used later when describing the work of Muir, Leopold and Marshall.

The first traditional wilderness characteristic is that it is largely shaped by natural forces. Natural forces are such things as geological, biological and ecological processes. Such processes and systems operate in accordance to natural laws. The Wilderness Act embraces this characteristic when it defines wilderness as an area that “generally appears to have been affected

primarily by the forces of nature.” This means the animal and plant distribution in wilderness is the result of evolutionary pressures, environmental conditions (weather systems, food supply), and the geological structure of the area. In wilderness the existence of a population of bighorn sheep depends on the edible plants of an area (environmental condition), the distribution of predators and other herbivores (evolutionary pressure), and the existence of steep cliffs for protection (geological structure). In a wilderness area the existence or non-existence of bighorn sheep depends on these factors. This quality represents both the natural and wild quality of wilderness. It is wild because it defines wilderness as being shaped by natural forces and not by human modification. It also represents the natural quality of wilderness. This is because the native state of a particular area came about by virtue of the play of natural forces. The Clark’s nutcracker-white bark pine-grizzly relationship emerged through these natural processes.

An area shaped by natural forces is in contrast to an area shaped by humans. That is to say, forests acted on by geological, meteorological and evolutionary processes are very different from farms. On a farm humans mandate the population and diversity of life. Whether or not sheep live on a farm is not dependent primarily on evolutionary pressures, environmental conditions, or geological structures, but rather on whether humans choose to breed, feed and shelter these animals. A wilderness area’s structure, on the other hand, is shaped by natural laws and processes that are not decided or implemented by humans.

Wilderness, in addition to being presently shaped by natural forces, should also *emerge* by virtue of natural forces and retain these characteristics. This is the second wilderness quality. This is specified in the Wilderness Act by designating land “retaining its primeval character and influence.” This passage suggests that a wilderness area should also preserve its connection to the past. That is, for an area to be wilderness it must have emerged by virtue of natural forces.



An area's past history defines it as a particular place. This idea is perhaps clarified by discussing Robert Elliot's influential essay "Faking Nature." In this piece Elliot argues against the "restoration thesis", which is the belief that a natural area can be completely restored to its original state after human interference. Elliot argues against this claim by drawing an analogy between a natural area and a work of art and emphasizes the importance of origins.

In the case of art the origin of the piece provides an important part of the art's value. For instance, imagine buying a Van Gogh painting and then finding out it is actually a recreation. Part of the art's value has been lost. The value of the piece, in addition to its formal features, was also its origin. The origin of a work of art is important to its value. Elliot reasons that this is analogous to the value of a natural area. A natural area is also valuable by virtue of its origins. Just as finding out that the Van Gogh painting was a recreation dissolved a portion of its value, finding out that a mountain forest was created by humans also removes value. The area is less valuable, and has lost its naturalness, if it is a human creation. This is because, according to Elliot, natural means "unmodified by human activity." Elliot thinks that this quality adds value to wilderness the same way Van Gogh being the actual artist adds value to a work of art. The restoration thesis fails because the restored area would have lost a portion of its naturalness and thus its worth, and will never be as valuable.<sup>9</sup>

Although Elliot is discussing the value of an area rather than its ontological status his idea still seems relevant to an ontological discussion of wilderness. Ontologically, according to the traditional wilderness conception, lacking natural origins is the difference between an area being wilderness or an extension of civilization. This idea is better understood by coming back to an art analogy. Instead of value consider the importance of origins in defining an object. Imagine buying a Van Gogh painting, but this time finding out that it is actually a poster and not

a painting at all. Or, imagine finding an ancient Greek sculpture to discover it is actually a modern mass-produced plaster cast. In both cases, the origins of the object define it as a certain thing. This is because all paintings and sculptures have certain essential characteristics that define it as that object. A painting might be defined as the product of applying paint to a surface. A poster, on the other hand, is the product of a mass printing process. Even if a thing appears identical to another, such as the plaster statue and the ancient sculpture, its history, or origins, defines it as an ontologically distinct object.

This is true for sculptures and plaster castes as well as wilderness. If a wilderness area is found to actually be a human creation, this means that the area has different origins, and is no longer wilderness. It has lost one of its essential characteristics. The origin of a wilderness area plays an important part in what separates it from humanity. In addition to currently being shaped by natural forces, the area must also have emerged by virtue of these natural forces. It must have been brought into being by processes that were completely natural and not mandated by humans.

Lastly, wilderness must be free of human inhabitants and human structures. This is specifically stated in the Wilderness Act when it defines wilderness as an area “without permanent improvements or human habitation.” This characteristic further separates wilderness from humanity. Theoretically the first two wilderness characteristics could be present even though a human family might live in a house in the area. As long as these humans did not disrupt the play of natural forces (for example feeding the animal population, planting fields or interrupting a creek in order to irrigate) the area could still be wilderness. This final characteristic radically separates humans by forbidding any type of human presence.

This wilderness attribute forbids the presence of humans in two main ways. The first is the prohibition of permanent human habitation; the second is the banning of human structures.

The first is the more controversial of the two. This describes wilderness as being a place that is absent of human populations. However, this attribute seems to ignore native people. Native Americans have inhabited North American lands often considered wilderness (the Mission Mountains in Montana for example) for thousands of years. The general meaning of this wilderness characteristic is that the kind of human presence found in the mountains surrounding Los Angeles is prohibited.

The second exclusion is on human structures. This attribute prohibits such human structures as cottages, bridges, lodges and roads. However, roads may ruin a wilderness area the most. Roads create an elevated human presence by making otherwise remote areas easily accessible. Roads also divide up wilderness and create hazardous areas for wildlife. An example of this can be seen on Route 200 in Montana. A population of big horned sheep has been adversely affected in an area where the road runs between the Clark Fork River and steep cliffs. The sheep live on the cliffs for protection but often walk down to the river during the day, and are attracted to the salt used on the road in the winter. Because of the high level of traffic many sheep casualties occur each year. In 2007 twenty-five sheep were killed.<sup>10</sup> Thus, roads and other human structures ruin wilderness by disrupting the area's naturalness. A wilderness area must lack these types of structures.

These three characteristics are central to the traditional wilderness conception that emerged in the nineteenth and twentieth centuries, and define wilderness as being ontologically separate from humanity. Each characteristic defines wilderness in such a way that the presence of humans or human manipulations ruins the wilderness character. Wilderness is essentially that place where human presence, involvement, manipulation, and artifacts are absent.

To conclude, wilderness is considered ontologically separate from civilization and humanity. It is a place shaped by natural forces, with natural origins, and free of human inhabitants and structures. Any kind of human manipulation, interference, influence, structure or presence, is thought to destroy the wilderness character. At this point wilderness ceases to be wilderness and becomes another extension of civilization. In the following sections on Muir, Leopold and Marshall I will try to show how each writer defines wilderness as an ontologically separate place, which can be destroyed by the presence of humans, and human modifications.

### John Muir

John Muir is perhaps the best known, most influential, and most widely read of the authors discussed in this chapter. His popular books enlisted many to the cause and goal of widespread preservation of wilderness. The many pages of text he wrote exemplify his intense enthusiasm toward wilderness. These works also display a wilderness defined as ontologically separate from humanity. This is a wilderness ruined by human modification and manipulation. In the following section I will first give a brief account of Muir's life. Second, I will show that Muir's descriptive approach to disclosing wilderness centers on a scientific view of wilderness and the experience of wilderness. Last, I will examine the way Muir conceives of wilderness as ontologically separate.

Born in Scotland in 1838 and moving to Wisconsin in 1849, John Muir grew up under a strict Calvinist father, Daniel Muir, who ruled over his children in an oppressive manner. Daniel Muir held the belief that nature is for human use. That is, wilderness should be conquered and developed. As a child John Muir helped build his family farm by burning, clearing and cultivating the land. Despite this childhood Muir still found delight in wandering the wilderness

around his Wisconsin homestead. However, his real moment of transformation came during a 1,000-mile walk to the gulf coast.<sup>11</sup>

As a successful inventor Muir enrolled at the University of Wisconsin after entering his inventions at the state fair. At the university he became acquainted with New England Transcendentalism as well as modern science and its recent turn toward evolution. In many ways this influenced his ideas of wilderness. Transcendentalism gave Muir an example of wilderness writing in the works of Emerson and Thoreau. Scientific knowledge gave Muir an understanding of the processes that brought these places into being. However, he only finished two years and left without a degree.<sup>12</sup>

While working at an Indianapolis carriage factory, soon after leaving the University of Wisconsin, Muir suffered an eye injury. The threat of losing his eyesight convinced Muir he needed to explore America's wilderness. He decided to walk south from Indiana to the Gulf of Mexico. During this walk Muir realized the beauty of nature. He also learned the negative effects of wilderness when he became stricken with malaria at the end of his journey.<sup>13</sup> However, it is important to note that despite this experience his enthusiasm and love toward wilderness did not wane.

After Muir arrived at the gulf he traveled by ship to California and the Sierra Range. It is here that he became the most influenced by wilderness. The mountains Muir explored contained beauty and meaning beyond anything he had discovered in cities or on farms. In these mountains he spent many days traveling light, bringing only food, and sleeping next to campfires for warmth. He traced groves of Sequoias, sat and observed birds, mammals, reptiles and all species of plants and trees, and contemplated the movement of ancient glaciers in forming this

mystical place. In the majestic Sierra Nevada Mountains Muir found a wilderness that was safe and beautiful.<sup>14</sup>

In the years to follow Muir became one of the most significant crusaders for wilderness. He started the Sierra Club, which is a highly influential wilderness advocacy organization. Muir wrote many popular books and articles, and was a best selling author. He traveled through much of the American West and Alaska documenting the wildernesses he discovered. He died in 1914.<sup>15</sup>

### Muir's Method

Muir does not give a straightforward definition of wilderness like the one given in the Wilderness Act. Rather, Muir employs a particular method in the way that he discloses wilderness. Muir's method defines wilderness by way of description. On the one hand, he describes these places from a scientific perspective. He describes wilderness in an objective way. For example he discusses the diameter of a tree and its age, as well as long processes (glaciers, the life of a Sequoia, etc.) that could never actually be experienced by a human being. On the other hand, Muir's description of wilderness also centers on the experience of wilderness. Muir describes what it is like to be under a canopy of leaves, or to ride an avalanche. This descriptive method focuses on the subjective and aesthetic experience of wilderness rather than the scientific and objective aspect.

I will first discuss Muir's description of these places from a scientific point of view. Many of Muir's descriptions of wilderness include the evolutionary history, the geologic history, and certain other relations between organisms in the wilderness he is observing. These scientific descriptions include lists, examinations of rock formations, and close analyses of trees.

So, for example Muir constructed long lists of plant life. These lists allow one to understand and comprehend the vastness and variety of life in these areas. Muir states while describing the forests of the Yosemite Park in *Our National Parks*, “With few exceptions all the Sierra trees are growing in the park - nine species of pine, two silver fir, one each of Douglass spruce, libocedrus, hemlock, juniper and sequoia - sixteen conifers in all, and about the number of round headed trees, oaks, maples, poplars, laurel, alder, dogwood, tumion, etc.”<sup>16</sup> Through these lists Muir is able to disclose the diversity and complexity of plant life in these areas.

In addition to lists, Muir also describes processes. The following example deals with the function of glaciers in forming the Hetch-Hetchy valley. In the article “Hetch-Hetchy Valley: The Lower Tuolumne Yosemite” Muir describes his first trip to the valley and his experience there. In the course of the piece Muir “sketches” a picture of the valley. Often in the piece Muir discusses the role of glaciers in the area’s formation. As Muir is lying down to sleep he muses about the valley:

Here I laid down, and thought of the time when the grove in which I rested was being ground away at the bottom of a vast ice sheet, that flowed over all the Sierra like a slow wind. It is now frosted with magnificent firs (*Picea amabilis*), many of which are over 200 feet in height, growing upon soil not derived from solid granite by the slow rusting action of rain or frost, or by the more violent erosion of torrents of water, but by the steady crushing and grinding of glaciers.<sup>17</sup>

In this passage Muir depicts the process in which granite is turned into soil by the movement of glaciers. Muir also touches on a few other natural processes. These are the erosion of rock by rain and frost, and the effect of rushing water on rock. This passage exemplifies Muir’s knack for describing wilderness in relation to its scientific facts. It is not just the rock formations or the varieties of plants and animals that interest Muir, but also the way they came into being.

Muir also describes his first hand experience of wilderness. In this way he presents a different perspective than a scientific description of wilderness. In the following example Muir is discussing Yellowstone National Park. He states,

We see the old stone stumps budding and blossoming and waving in the wind as magnificent trees, standing shoulder to shoulder, branches interlacing in grand varied round-headed forests; see the sunshine of morning and evening gilding their mossy trunks, and at high noon spangling on the thick glossy leaves of the magnolia, filtering through translucent canopies of linden and ash, and falling in mellow patches on the ferny floor; see the shining after the rain, breathe the exalting fragrance, and hear the winds and birds and the murmur of brooks and insects.<sup>18</sup>

In this passage Muir describes how it feels to be in, and experience, wilderness. That is, Muir describes the way wilderness is experienced through the senses. In fact, Muir touches on most of the senses (except tactile). Through these descriptions Muir attempts to reveal wilderness.

However, these two forms of description, scientific and experiential, are not typically given independently. Rather, Muir usually wraps the two together while describing wilderness. For example, in the section titled “Glaciers” in *The Mountains of California* Muir describes both the brute scientific facts of wilderness as well as its appearance from his first-hand experiences. Throughout much of the discussion Muir touches on such things as the history of glaciers, different glaciers in other parts of the world, and how glaciers form magnificent landscapes.<sup>19</sup> Muir also describes the experience of seeing and feeling the carved rock left by the glacier. He describes going inside a glacier through a “series of rugged zigzags.” Inside the glacier he finds a “weird underworld” that is “hung with a multitude of clustered icicles, amid which pale, subdued light pulsed and shimmered with indescribable loveliness.”<sup>20</sup>

### Wilderness as Separate in Muir

At various times in his writing Muir describes wilderness as being shaped by natural forces, having natural origins and lacking human structures and habitation. In this way Muir



views wilderness as an ontologically separate place. In the following section I will first discuss the way Muir's scientific descriptions present wilderness as being primarily shaped by natural forces. Second, I will examine Muir's description of the creation of North American wilderness. Lastly, I will discuss the battle over the damming of the Hetch-Hetchy Valley.

First, in the discussion above I highlighted Muir's method of disclosing wilderness by describing it in a scientific vein. These descriptions include lists of various plants and animals as well as accounts of the natural processes that formed these places. For instance, above I used an example where Muir emphasizes the role of glaciers in forming the Hetch-Hetchy valley. These types of descriptions, however, are common in Muir's writing. Often, Muir discusses the importance of fire, rivers, snow and geological processes in shaping wilderness environments. In these descriptions Muir is defining wilderness according to its processes and systems. His emphasis on these processes essentially define wilderness as a place primarily shaped by natural forces. Muir considers this quality a distinct characteristic of wilderness. Rather than being a place created by humans, like a farm or city, the Hetch-Hetchy valley was shaped by the "steady crushing and grinding of glaciers." By virtue of this characteristic, Muir views wilderness as a place ontologically separate from humans, and the human world.

The second area where Muir considers wilderness separate from humankind is in the tenth chapter of *Our National Parks*. In this section Muir presents a story of the creation and destruction of wilderness on the North American continent. This story emphasizes the importance of both natural forces and natural origins in wilderness. The story also supports the view that wilderness is something ontologically separate from civilization.

In this section Muir describes the forests, meadows and mountains of North America as they came into being. He describes the way the earth was "ploughed and ground and sculptured

into scenery and soil with glaciers and rivers” as well as “lifted into light, submerged and warmed over and over again, pressed and crumpled into folds and ridges, mountains, and hills, subsoiled with heaving volcanic fires.”<sup>21</sup> In addition to the creation of the geography of North America Muir also describes the trees. He mentions the “level-topped cypress” of the south, the “rosiny evergreens” in the north, the “dark wilderness of pines” around the Great Lakes, and the “giant cedars and spruces” of the Pacific coast.<sup>22</sup> He ends these descriptions by announcing that the North American wilderness is “rich beyond thought” and full of “variety, harmony, and triumphant exuberance.”<sup>23</sup>

Next, Muir goes on to describe the emergence of Europeans in North America. He states, “when the steel axe of the white man rang out on the startled air their [trees] doom was sealed.”<sup>24</sup> European settlers meant the end of wilderness. This was done by replacing the bountiful forests and meadows with “orchards” and “corn fields.”<sup>25</sup> Muir describes this destruction as pushing itself west. He states, “Thence still westward, the invading horde of destroyers called settlers made its fiery way over the broad Rocky Mountains, felling and burning more fiercely than ever, until at last it has reached the wild side of the continent, and entered the last of the great aboriginal forests on the shores of the Pacific.”<sup>26</sup>

This description conceives of wilderness as being shaped by the forces of nature. The elements of this wilderness, “the mossy tundras...the blooming prairies and plains,” “the grey deserts” and “all the vast forests,”<sup>27</sup> were given their form by natural processes. That is, rivers, glaciers, volcanoes and numerous ecological systems were the driving force in these places. An area acted on by natural forces is in contrast to areas developed by humans: orchards, cultivated land, and other human structures. These places are primarily shaped by humans who select the

trees, plant the fields and build the barns. Muir's wilderness is directed by natural processes that are not mandated by humans.

This story also claims that wilderness must have natural origins. This is the case for two reasons. First, in Muir's description wilderness emerged by virtue of natural forces. It was the process of being "lifted into light, submerged and warmed over and over again, pressed and crumpled into folds and ridges, mountains, and hills, subsoiled with heaving volcanic fires" that brought North American wilderness into existence over a long period of time. Wilderness emerged through these natural processes and thus has natural origins. Second, natural origins are necessary for an area to be wilderness because the changes enacted by European settlers destroyed wilderness. For an area to be wilderness it must have natural origins in addition to being currently shaped by natural forces. Any kind of human manipulation or modification that severs an area's connection with its origins destroys its wilderness character.

Lastly, Muir describes wilderness as separate from humanity in the battle over the Hetch-Hetchy valley. Around the turn of the twentieth century the city of San Francisco decided to look toward the Hetch-Hetchy valley as a reliable water source. The valley is located in the Sierra Nevada Range. Through the middle of the valley flows the Tuolumne River surrounded by high, nearly vertical granite walls, which, according to Muir, "seem to glow with life."<sup>28</sup> Muir also describes the Hetch-Hetchy valley as "a grand landscape garden, one of nature's rarest and most precious mountain temples."<sup>29</sup> However, the high walls also made this valley a great candidate for a reservoir, and as early as 1882 the city considered this resource. The debate over the valley was extremely heated and tore the conservation movement apart. It separated those favoring the preservation of wilderness from those who favored conservation for human use.

Despite a long fight permission to build the dam was finally given by President Woodrow Wilson in 1913.<sup>30</sup>

Opponents of the dam claimed that the reservoir would destroy the scenic and recreational value of the valley. Supporters of the reservoir argued that the lake created by the dam would be just as scenic, as well as friendly to recreation, as the original valley.<sup>31</sup> However, Muir did not find this argument convincing. Muir seemed to think that there was something in the valley beyond the scenic or recreational value that made it important. This was its separateness from humanity by virtue of being shaped by natural forces, possessing natural origins and lacking human structures and modification. The reservoir would ruin the wilderness character by replacing something arising from natural forces with an extension of civilization. Thus, Muir exclaims, “Dam Hetch Hetchy! As well dam for water-tanks the people’s cathedrals and churches, for no holier temple has ever been consecrated by the heart of man.”<sup>32</sup>

Muir’s position in this battle displays both the belief that wilderness should have natural origins as well as be free of human structures. First, the problem with the reservoir is that, although appearing to be a natural lake, it is not. The lake is a human creation. It is brought into being by the construction of a dam rather than by natural processes (such as the melting of a glacier). A human-created lake cannot be wilderness. For an area to be wilderness it must have emerged through natural process and not from human manipulation. The wilderness of the Hetch-Hetchy valley is not equal to the human-built lake that replaces it no matter the scenic or recreational value.

Second, this debate shows that Muir thinks the presence of human structures also ruins wilderness. The area is no longer wilderness once a human structure such as a dam has changed the place. The lake produced is not a natural lake but a human creation. In this way it is more

similar to a public swimming pool than a naturally occurring high mountain lake. Thus, we see that the debate over the Hetch-hetchy valley displays Muir's view that a wilderness area must have natural origins as well as lack human structures. These characteristics ontologically separate wilderness from humanity

To sum up, Muir conceives of wilderness as an area acted on by natural forces, possessing natural origins and being free of prolonged human presence and structures. This is evident in Muir's conception of wilderness as wild and natural, his description of the creation of North America, and Muir's response to the battle over the damming of the Hetch-Hetchy valley. Muir describes wilderness as a place ontologically separate that can be destroyed by the presence of humans, and human modifications.

### Aldo Leopold

Aldo Leopold was central figure in the preservation-conservation movement during the early twentieth century and accomplished much in his lifetime toward the goals of this movement. He is known as the father of wildlife management. He also developed the Land Ethic, which is an ethical system that considers the earth as a community of life that should be treated morally. He was also very influential in defining wilderness as well as preserving it. In the following section I will present a brief summary of Leopold's life. Second, I will examine Leopold's conception of wilderness and how it is related to the three wilderness characteristics described at the beginning of this chapter.

Leopold grew up in Burlington, Iowa. It was here that he developed an interest in the outdoors, ornithology and hunting. Leopold graduated from the Yale Forest School, and went on to obtain a position as Forest Assistant in the southwest with the Forest Service's District III. While in this position, Leopold became interested in conservation after observing the shrinking

numbers of game, fish and waterfowl. He was placed in charge of game, fish and recreation. In this position he carried out the extermination of predators to regain higher numbers of game animals. Overtime, however, Leopold came to regret this extermination and began to regard all species as important.<sup>33</sup>

Leopold's greatest accomplishment is most likely the preservation of the Gila River's headwaters as the Gila National Forest. In 1924 this area was designated as the first protected wilderness area. In many ways this was the starting point of a process of wilderness preservation that climaxed with the enactment of the 1964 Wilderness Act.<sup>34</sup>

### Leopold and Wilderness

Leopold was very concerned with the meaning of wilderness as well as preserving it. He attempted in his writing to develop a coherent definition of wilderness that described its characteristics and why they are important. In the following section I will look into his conception of wilderness. First, I will show that Leopold views wilderness as a particular place with specific characteristics. Second, I will give three different definitions of wilderness given by Leopold. Last, I will show how these definitions describe the three wilderness characteristics described at the beginning of this chapter, and conceive of wilderness as ontologically separate from humanity.

First, Leopold seems to believe that wilderness is an ontologically separate place with unique characteristics. These characteristics make it a place separate from humanity and civilization. Leopold states in the article "Wilderness as a Form of Land Use" (WFLU) that "wilderness is a resource, not only in the physical sense of raw materials it contains, but also in the sense of a *distinct environment* which will, if rightly used yield certain social values."(italics added)<sup>35</sup> Whether or not wilderness produces these social values is not really important here.

Rather, it is important that Leopold acknowledges that wilderness is a “distinct environment.” This means wilderness possess certain characteristics that make it an ontologically distinct place. Wilderness, ontologically speaking, exists.

Leopold’s definitions of wilderness describe what these characteristics are that make wilderness a distinctive environment. First, in WFLU Leopold defines wilderness as “a wild, roadless area where those who are so inclined may enjoy primitive modes of travel and subsistence, such as exploration trips by pack-train or canoe.”<sup>36</sup> This definition lists two main wilderness attributes. The first is that it is roadless. This characteristic is related to the exclusion of human structures and modification in wilderness. The second attribute is that wilderness is wild. This means that it is shaped primarily by natural forces. I will come back to both of these shortly.

Leopold also gave an elaborate definition of wilderness in the essay “The Wilderness and Its Place in Forest Recreational Policy” in 1921. Leopold defines wilderness as “a continuous stretch of country presented in its *natural* state, open to lawful hunting and fishing, big enough to absorb a two weeks pack trip, and kept devoid of roads, artificial trails, cottages and other works of man.”(italics added)<sup>37</sup> Compared to Muir this definition, and also the one in WFLU, is very specific and has the character of a legal definition. This is a definition that could be used in the sanctioning of a wilderness area. Hence, aspects of this definition are echoed in the Wilderness Act. This definition also lists roadlessness as a mandatory requirement of wilderness. However, Leopold extends this idea and also excludes “artificial trails, cottages and other works of man.” In addition, instead of citing wildness as a wilderness characteristic, Leopold refers to an area’s naturalness. Thus, we see both naturalness and wildness part of Leopold’s wilderness conception.

Leopold also gives a more sobering definition of wilderness. These descriptions of wilderness depict a place that cannot be recreated. Leopold presents this idea several times in his writing. For instance, in *A Sand County Almanac* Leopold states, “Wilderness is a resource which can shrink but cannot grow.”<sup>38</sup> On another occasion, this time specifically dealing with the unlikelihood of a human created wilderness, Leopold asserts, “Wilderness certainly cannot be built at will, like a city park or a tennis court. If we should tear down improvements already made in order to build a wilderness, not only would the cost be prohibitive, but the result would probably be highly dissatisfying.”<sup>39</sup> Lastly, Leopold claims, “It will be much easier to keep wilderness areas than to create them. In fact, the latter alternative may be dismissed as impossible.”<sup>40</sup> In this instance rather than being “highly dissatisfying” a human-built wilderness is “impossible.” Leopold sees wilderness’s inability to be recreated as an important characteristic. Once it is lost it will always be lost.

Before I move on and discuss more deeply the conception of wilderness contained in these definitions I should say something about Leopold’s emphasis on the recreational use of land. The first two definitions describe recreational activities in wilderness areas such as canoeing, camping and hunting. These activities seem to be a central element of wilderness in these depictions. Although Leopold was an avid outdoorsman, and very concerned about such activities, he also believed these were not the most important aspects of wilderness. Rather, he valued wilderness itself with or without hunting and fishing. This position was expressed at the 1926 National Conference on Outdoor Recreation. Leopold reminds the crowd that recreational activities are “merely the salt and spices which give it [wilderness] its savory and variety.”<sup>41</sup>

In the following section I will examine the main points of Leopold’s characterization of wilderness, and align them with the three wilderness attributes described at the beginning of this



chapter. First, I will discuss Leopold's use of the terms naturalness and wildness in emphasizing the importance of natural forces. Second, I will look at the unlikelihood of a human created wilderness and what this says about the importance of natural origins. Last I will look at Leopold's exclusion of human structures and human presence in wilderness.

First, in the definitions above Leopold defined wilderness as being both natural and wild. We have seen naturalness defined by Landres and Cole as the native state of an area before post-aboriginal human influence. Leopold sees these characteristics as important to the concept of wilderness. Wilderness is a place in which the native systems and species are intact. Leopold also asserts that wildness is a central characteristic of wilderness. Landres and Cole define wildness as the free play of natural forces without human interference or influence. For example, natural processes such as annual rain patterns, the amount of snow pack, and the number of trees in the mountains should determine whether or not the Colorado River makes it to the Pacific Ocean. Currently the river no longer feeds into the Pacific because of irrigation and hydroelectric dams. Wilderness is a place in which these kinds of human manipulations are absent. Rather than humans influencing the river's flow, it should be controlled by natural laws, systems and patterns. Leopold's emphasis on the attributes of wildness and naturalness points to the importance of natural forces in defining wilderness.

Second, in addition to being currently shaped by natural forces, Leopold also understands the importance of natural origins in defining wilderness. This is apparent in his belief that wilderness should be preserved because it is difficult, if not impossible, to recreate. In these depictions of wilderness Leopold is emphasizing the importance of an area's past history. The reason that a human-created wilderness area would be "highly dissatisfying" is because the area would lack natural origins. As discussed earlier, an area's history is what defines it as that thing.

Imagine a place just like the Grand Canyon in appearance with many of the canyon's natural processes in place. However, this canyon, rather than emerging over time by virtue of natural forces, was created by the fictitious company Wilderness Structures Unlimited. It seems that although similar in appearance and structure this place is different from the original canyon. This canyon is not wilderness because it emerged by virtue of humans. This is what Leopold is saying when he describes wilderness as a place that can "shrink but cannot grow." An important part of wilderness is its natural origins. This is why a "wilderness" area built by humans, even if identical to the original, is not wilderness.

Third, Leopold stresses that a wilderness area must lack human structures and artifacts. This is contained in the requirement that an area must be "kept devoid of roads, artificial trails, cottages and other works of man." Leopold explicitly acknowledges that the presence of civilization and humans destroys the wilderness character. Human structures, such as roads and houses, affect wildlife and natural processes. Wilderness cannot be wilderness if it is overrun, or even somewhat modified, by human presence. The construction of human structures, or other human modifications, according to Leopold, ruins the wilderness character.

All three of these wilderness characteristics view wilderness as ontologically separate from humanity. First, wilderness must be shaped by natural forces. This is contained in Leopold's description of wilderness as both wild and natural. This characteristic excludes any human involvement in wilderness. Second, wilderness is a place that can be destroyed by humans but not recreated. This addresses the importance of natural origins in a wilderness area. Wilderness can only be wilderness if it emerged by virtue of natural forces. An area emerging through the work of humans is not wilderness. Third, the construction of human structures and the presence of humans ruin the wilderness character. Thus wilderness must be free of these

improvements. All of this points to wilderness as ontologically separate from humanity and civilization. Wilderness is an ontologically distinct place and characterized as being outside the human world.

### Robert Marshall

Robert Marshall represents an interesting segment of wilderness history. Although he did not write much (compared to Muir) he in many ways largely contributed to the definition of wilderness in the Wilderness Act. This is probably due to Marshall's clear and academic style of writing. Marshall defines wilderness at the beginning of his essay "The Problem of the Wilderness" in a straightforward manner. This is the main essay I will examine regarding Marshall. It presents Marshall's clearest conception of wilderness, and why he thinks it is important. In the following section I will give a brief account of Marshall's life and place in the history of wilderness protection. Second, I will present Marshall's conception of wilderness.

Robert Marshall was born in 1901 to an affluent family in New York City. His father, Louis Marshall, was a renowned expert of constitutional law, and also assisted in the preservation of New York's Adirondack State Park. Namely this included a fight to maintain a clause preserving the wilderness in the park. However, more than just protecting the Adirondack region the Marshall family spent many summers there at a family camp. During these summers Marshall discovered his love of wilderness. It has been said that during those years Marshall climbed forty-six of the surrounding mountains.<sup>42</sup>

Marshall received a Master's degree in forestry from Harvard and a PhD in plant pathology from John Hopkins. However, Marshall made his real imprint in his restless fight to preserve at least some of the vanishing American wilderness. Marshall's accomplishments were many. He was a co-founder of the Wilderness Society. He argued for the preservation of

wilderness when he wrote the recreation section of the *National Plan for American Forestry*. And then in 1937, while working for the United States Office of Indian Affairs, Marshall drafted an order designating sixteen wilderness areas on Indian Reservations. He received approval on this order from his superior John Collier the same year. In 1937 Marshall joined the United States Forest Service and was given the position as head of the division of Recreation and Lands. In this position Marshall pushed for “U” regulations which would restrict roads and settlement on 14,000 areas in the National Forest system. This went into effect in 1939. That same year Marshall, who insisted on a rigorous lifestyle in the back county, died from heart failure at the young age of thirty-eight.<sup>43</sup>

#### Marshall’s View of Wilderness

Marshall defines wilderness as “a region which contains no permanent inhabitants, possesses no possibility of conveyance by any mechanical means and is sufficiently spacious that a person in crossing it must have the experience of sleeping out.” He then goes on to further define wilderness with an additional two attributes. The first is that for an area to be considered wilderness an individual within it must “depend exclusively on his own effort for survival.” This means that the area cannot have any of the civilizing structures and amenities found in modern society (grocery stores, hospitals, roads). The second attribute is that the area must “preserve as nearly as possible the primitive environment.” However, Marshall allows such human modifications as “trails” and “temporary shelters,” “which were common long before the advent of the white race.”<sup>44</sup>

In this definition Marshall does not discuss the presence of natural forces explicitly. Instead, he concentrates on a wilderness area’s lack of human involvement. Particularly this is a concern about keeping out the products of modernity such as cars and roads. However, Marshall

does seem to hint at the importance of natural forces, both in its current state and in its origins, in defining wilderness. This occurs when Marshall claims that a wilderness area must “preserve as nearly as possible the primitive environment.” In this case Marshall seems to want to preserve the state of wilderness areas as they were before development by humans. The primitive environment being preserved would be an area shaped by natural forces. This conception seems to suggest that wilderness must also have natural origins. Otherwise there would be no need to preserve an area since wilderness could than be recreated.

Later in “The Problem of the Wilderness,” Marshall also acknowledges the importance of natural processes and natural origins in wilderness. This occurs while discussing the importance of immediate wilderness preservation. Marshall states, “it is easy to convert a natural area to industrial or motor usage, impossible to do the reverse.”<sup>45</sup> This is similar to Leopold’s view that wilderness is a resource that cannot grow. Like Leopold, Marshall’s position suggests that wilderness must have natural origins. A “wilderness” built by humans would lack these origins. An area that is a reversed industrial park will fail to be wilderness because it has not been shaped by natural forces and lacks natural origins.

Second, Marshall prohibits permanent inhabitants in wilderness. Marshall states this authoritatively and directly at the beginning of his definition. Thus, this seems to be an important attribute in Marshall’s definition. The prohibiting of inhabitants in wilderness clearly sets wilderness in opposition to humanity. For an area to be wilderness it has to be free of prolonged human presence. This includes both the building of houses and cities as well as the presence of native populations in small roaming villages. However, this conviction has since been highly criticized. The general complaint is that by excluding people Marshall excludes natives that

have lived in these areas for thousands of years. This will be discussed more deeply in the second chapter.

Third, Marshall defines wilderness in its lack of human structures, institutions, mechanizations and modifications. This requirement is first displayed through Marshall's insistence that an individual must "depend exclusively on his own effort for survival." This requires the exclusion of human structures (roads, hospitals, grocery stores, etc.) as well as human institutions (agriculture, rescue operations, etc.). Marshall also excludes the use of transportation machines and the structures (roads) that accompany these things. In civilization, conveyance by mechanical means, as well as the structures and institutions listed above, are completely acceptable. Marshall claims that these ruin the wilderness character. Wilderness then must be a place separate from civilization and humanity. Specifically, it is separate from mechanized civilization.

To conclude this section, Marshall conceives of wilderness as ontologically separate from civilization and humanity. This is mainly in relation to Marshall's exclusion of "permanent inhabitants" and his prohibition of the structures and institutions of civilization. Marshall also points out some of the other characteristics of a wilderness area, such as the requirement that a wilderness area retains its "primitive environment." This refers to the importance of natural possesses and natural origins. Marshall defines wilderness as an ontologically separate place that contains the characteristics of being natural, having natural origins and being free of human inhabitation and structures.

### Conclusion

In the above account I described the concept of wilderness as it was defined in America in the nineteenth and early twentieth centuries. I called this the traditional wilderness conception.

This conception emphasized the way that wilderness is ontologically separate from humanity. In addition to wildness and naturalness, I described three main wilderness characteristics: wilderness must be shaped by natural forces, have natural origins and be free of human inhabitation and human structures. The second part of the chapter centered on the works of John Muir, Aldo Leopold and Robert Marshall. I attempted to display each writer as embracing a conception of wilderness as an ontologically separate place composed of these three characteristics. These writers all contributed to the traditional wilderness conception that became concretized in the 1964 Wilderness Act. The next chapter will present some influential critiques of the views contained in this chapter. These critiques question the conception of wilderness as an ontologically distinct place separate from humanity.

## CHAPTER TWO: THE CULTURAL CONSTRUCTION OF WILDERNESS

*We did not think of the great open plains, the beautiful rolling hills, and winding streams with tangled growth, as 'wild.' Only to the white man was nature a 'wilderness' and only to him was the land 'infested' with 'wild' animals and 'savage' people. To us it was tame.*

*Chief Luther Standing Bear<sup>1</sup>*

Although written in 1933, the above passage from “Indian Wisdom” foreshadows current criticisms leveled at the wilderness conception. Luther Standing Bear stresses that wilderness is a Euro-American conception, and that native people have a different kind of relationship with the natural world. Since the late 1980s many writers have criticized the Euro-American conception of wilderness and the Wilderness Act in much the same way. These critiques question the validity of this wilderness conception, specifically the exclusion of humans and human modifications. These critiques typically consider wilderness to be a cultural construction of a particular Euro-American tradition. A wilderness ontologically separate from humanity is regarded as a misconception. Rather, humans are viewed as part of wilderness. In this chapter I will first list three central factors that caused this new wilderness debate to emerge. Second, I will present some of these critiques and how they perceive the ontological status of wilderness. I will begin with William Cronon’s view of the cultural construction of wilderness, and then discuss the human presence in, and modification of, wilderness areas.

Since the era of Muir, Leopold and Marshall there have been shifts in the study of ecology, advances in the study of native cultures, introduction of third-world perspectives to environmentalism, and postmodern movements in philosophy and sociology. Three central developments have led to the current criticisms of the concept of wilderness. First, it has been widely acknowledged that humans have occupied and manipulated most of the earth (although the extent of modification is argued). Second, since the early twentieth century the wilderness conception became legitimized in the Wilderness Act, and has subsequently been exported to



other countries. This has led to a third-world critique of the traditional wilderness concept. Third, postmodern cultural constructionism has been influential in changing the way many people view the concepts of wilderness and nature.

First, the contemporary critique of the wilderness conception has focused largely on the way that wilderness ignores the actual human-nature relationship. It is often argued that people have inhabited and modified most of the earth, and that considering places as uninhabited is a misrepresentation of the human-nature relationship. The 1989 essay “Radical American Environmentalism and Wilderness Preservation: A Third World Critique” by Ramachandra Guha is often credited with jump starting this critique of wilderness. This work criticizes the exclusion of people from the definition of wilderness when applied to a place like India.<sup>2</sup> This critique is extended by writers such as J. Baird Callicott to criticize the wilderness concept in America. It is argued that humans have occupied every continent and considering any place to be completely uninhabited ignores this human presence.

In addition, there has been an increase in evidence that humans have actively modified their environments. These studies have mainly focused on aboriginal burning techniques, but planting and other managing tools have also been mentioned. The extent to which native people modify their environment, it turns out, is much higher than previously thought. Moreover, in some instances native methods of managing local forests and grasslands are thought to increase the health of the land rather than destroy it. Callicott refers to these systems as a “mutually sustaining and enhancing human-nature symbioses.”<sup>3</sup>

Second, the new debate about wilderness has been brought about by the export of the wilderness idea to other countries. This has led some countries to adopt laws similar to the Wilderness Act. However, these “parks” and “wilderness” areas have been highly criticized due

to the way they ignore the historic presence of people. The exportation of wilderness to India is what primarily motivated Guha to criticize the traditional wilderness conception. He sees the exclusion of people as something that can work in America where we have large unpopulated areas to preserve as federally protected wilderness areas. However, in places like India, where there exists a high density of people that have lived in most areas for a long period of time, the wilderness ideal becomes problematic. Rural people that depend on these areas for livelihood are forcibly removed to create a protected wilderness. This is often to the benefit of tourists and more wealthy individuals, and serves as an injustice to the rural population.<sup>4</sup>

Last, criticism of the wilderness conception has emerged by virtue of postmodern cultural constructionism. Postmodernism is a somewhat vague term. In a wide sense it is the rejection or critique of the beliefs and ideals of the modern period. In this discussion postmodern cultural constructionism refers to the rejection of the belief in a timeless objective reality that can be grasped through rational thought and scientific study. The belief in an objective reality is the backbone of the modern period and the foundation of scientific knowledge. Mark Johnson summed up this modernist position as the belief that

the world consists of objects that have properties and stand in various relationships independent of human understanding. The world is as it is, no matter what any person happens to believe about it, and there is one correct 'God's -Eye-View' about what the world is really like. In other words, there is a rational structure to reality, independent of the beliefs of any particular people, and correct reason mirrors this rational structure.<sup>5</sup>

This position has been referred to by many as the "view from nowhere" because it excludes the role of the observer. Postmodern cultural constructionism asserts that there is no ultimate objective "God's-Eye-View" that can be known by humans. Instead, scientific and philosophic theories of the world always refer to cultural conceptions and values of a certain society or people. In any study there is always an observer that carries with him or her cultural prejudices and constructions.

It is true, however, that physical objects do exist in the world in some relation to each other. But concepts that humans have in regard to this world do not reflect the world directly but rather reflect a particular culture. The example used in the first chapter about the taxonomical classification of the great tail grackle was also used as an example of constructionism. I used this account to show how objects in the world are ontologically separate from each other by virtue of particular characteristics. Mark Brunson used this example to show how these classifications are a product of culture rather than the birds. Brunson believes that “the natural sciences are as subject to evolutions of meaning as any other cultural constructs.”<sup>6</sup> This example shows that taxonomy generally, and the classification of the grackle specifically, is more a cultural construction than a truth about the ultimate structure of the world. This is because, according to Brunson, “as all these changes were taking place, the genetic makeup of the great-tailed grackle stayed the same. What changed was how scientists organized their constructions of the natural world.”<sup>7</sup>

Not surprisingly, postmodern cultural constructionism has also changed the way many people think about nature and wilderness. According to this line of thought, nature and wilderness, like other concepts, are constructed within the framework of a specific cultural history. The way that contemporary Americans have understood wilderness is a result of their particular history.

One of the central constructions of Western culture is the human-nature (culture-nature) dichotomy. This dichotomy is thought to be a core belief of Western thought, existing in both the Greco-Roman and Judeo-Christian traditions. J. Baird Callicott notes that the belief that humans are separate from nature is “a major theme both in Western philosophy, going back to the ancient Greeks, and Western religion, going back to the ancient Hebrews.”<sup>8</sup> In the Judeo-Christian

tradition humans are created in the image of God and are thus very different from every other creature. Similarly, in the Greek tradition humans were thought to be the only “rational animals” and thus also separate from nature.<sup>9</sup> The wilderness conception is thought to embody this dichotomy and has been highly discussed in critiques of the wilderness idea.

The most important aspect of postmodern cultural constructionism in regard to this debate is that the wilderness concept ceases to refer to an objective place and becomes only a “concept” constructed by a Euro-American cultural history. Thus, Cronon claims, “there is nothing natural about the concept of wilderness.”<sup>10</sup> This is drastically different from the traditional wilderness conception described in the previous chapter. The traditional wilderness view thought of wilderness as an identifiable place. This was a place shaped by natural forces, possessing natural origins and lacking human inhabitants and structures. In light of cultural constructionism, wilderness becomes only a cultural concept.

Before I move on to discuss Cronon, I should point out that the contemporary critique of the wilderness concept typically argues for three main points. First, as described above, American wilderness is viewed as a Euro-American cultural construction and considered to be a mythic conception that is not an ontologically unique environment. Second, the traditional wilderness conception is considered to be harmful to environmental and conservation policy. It ignores the human presence in nature, and causes humans to concentrate on preserving unmodified wilderness while neglecting areas where humans and nature exist together. Third, the human-nature relationship is thought to be organic. That is, there is no clear division between humans and the natural world. Instead, humans and nature exist in an interconnected way. Moreover, a better relationship with nature will emerge if we include humans in the way we view nature, rather than considering humans separate from nature.

In the first chapter I discussed the way wilderness was conceived as an ontologically distinct place that contained particular defining characteristics. Here I will discuss Cronon's theory of the cultural construction of the wilderness concept. His article provides a convincing argument for the cultural construction of wilderness, has been widely read, and has been at the center of the current wilderness debate. It also appeared in the *New York Times Sunday Magazine* and was thus read by people outside of environmental studies and philosophy. Callicott and Nelson claim that with this event "the great new wilderness debate finally burst out of the ivory tower and came to the attention of the general public."<sup>11</sup> After the discussion of Cronon I will then turn to some of the criticisms that are the backbone of Cronon's essay. These criticisms deal with the human presence in, and modification of, wilderness.

#### William Cronon and the Cultural Construction of Wilderness

In 1983 William Cronon published *Changes in the Land*, a book dealing with the human modification of New England landscapes. In it he discusses the way Native Americans managed and manipulated the New England area, and then illustrates the changes brought by European settlers. This book creatively combines ecology with historical analysis. He argues that Native Americans actively altered the environments in which they lived.<sup>12</sup> This challenges a central assumption of many environmentalists and wilderness advocates: the pristine state of North America prior to European contact. Rather than a virgin land primarily shaped by natural forces, the landscape that Europeans discovered was largely a product of human alteration. The pristine state of North America is thus a myth developed by Euro-American settlers. In this section I will examine another work by Cronon: "The Trouble with Wilderness." This work argues directly for the cultural construction of the wilderness concept. In this piece Cronon describes the way

that the wilderness concept (the wilderness myth) emerged and the way this concept actually harms the conservation movement.

“The Trouble with Wilderness” is the opening essay in a book edited by Cronon titled *Uncommon Ground: Rethinking the Human Place in Nature*. This book presents various authors’ critiques of the conventional way environmentalists and wilderness activists view the natural world. In the introduction Cronon describes getting together with the other contributors and the central aims they all recognized in this project. One of their core beliefs is postmodern cultural constructionism. The wilderness concept, the contributors insist, is a cultural construction of a particular Euro-American tradition. Cronon states “the work of literary scholars, anthropologists, cultural historians, and critical theorists over the past several decades has yielded abundant evidence that ‘nature’ is not so natural as it seems. Instead, it is a profoundly human construction.”<sup>13</sup>

In “The Trouble with Wilderness” Cronon examines the way the traditional wilderness concept emerged in America and how it reflects older Western perceptions of the separation between humanity and nature. Cronon argues that, “The more one knows of its peculiar history, the more one realizes that wilderness is not quite what it seems. Far from being the one place on earth that stands apart from humanity, it is quite profoundly a human creation – indeed, the creation of very particular human cultures at very particular moments in human history.” Cronon sees the wilderness concept as mirror-like and reflecting the “unexamined longings and desires” of Americans, and thus adding to our problematic relationship with the non-human world.<sup>14</sup>

The traditional wilderness conception, Cronon argues, grew out of an older conception of wilderness rooted in the Judeo-Christian tradition. This view did not consider wilderness to be a

revered place with intrinsic value. Wilderness was a place “on the margins of civilization where it is all too easy to lose oneself in moral confusion and despair.”<sup>15</sup> Cronon insists that prior to 250 years ago wilderness conveyed a vastly different meaning than it does today. Wilderness was often described as “deserted,” “savage,” “desolate,” and “waste.” The emotion typically felt in wilderness was “bewilderment” and “terror” rather than Muir’s declaration that wilderness is a sacred place full of beauty and life.

Cronon ties this meaning to the Old Testament and the Garden of Eden. In this story humans, after breaking God’s rules, are cast out of the divine garden and into wilderness as a punishment. Humans must conquer the wilderness and create a civilization. Cronon states, “When Adam and Eve were driven from that garden, the world they entered was a wilderness that only their labor and pain could redeem.”<sup>16</sup> The important thing to note is that this conception envisions wilderness as an “Other” to humanity. Humans are forced to go in to this world. It is not their home but rather a foreign place.

According to Cronon, this relationship continues to be the basis of the traditional wilderness conception. However, in the last 250 years wilderness has been conceptually transformed from an area to fear to the most sacred of places. Wilderness is still viewed as a place separate from humanity, but it is no longer considered to be evil or forbidding. Wilderness becomes more like the Garden of Eden than the antithesis to it. Cronon suggests that this transformation occurred by virtue of two main cultural constructions: the sublime and the frontier. Cronon argues, “The two converged to remake wilderness in their own image, freighted it with moral values and cultural symbols that it carries to this day.”<sup>17</sup>

The sublime is a concept situated within the Romantic Period and associated with philosophers such as Immanuel Kant and Edmund Burke. Sublime landscapes were “those rare

places on earth where one had more chance than elsewhere to glimpse the face of God.” These were often “vast powerful landscapes where one could not help feeling insignificant and being reminded of one’s own mortality.”<sup>18</sup> Cronon discusses Wordsworth and Thoreau to express the emotion one feels in these sublime places. These regions present a feeling of being with the divine but also of being terrified. While climbing Mount Katahdin in Maine Thoreau exclaims “Vast, Titanic, inhuman Nature has got him at a disadvantage, caught him alone and pilfers him some of his divine faculty.”<sup>19</sup>

The belief in sublime wilderness continued throughout the Romantic Period. However, during the late Romantic Period, exemplified by writers such as Muir, the concept of the sublime was “tamed.” Instead of creating feelings of fear and bewilderment in the face of divine wilderness, Muir felt safe and at home. He sees wilderness as being full of “God’s beauty.” In this way the concept of the sublime in wilderness becomes “domesticated.”<sup>20</sup> Cronon claims that despite the transformation of emotion (from fear to admiration) connected to sublime landscapes the basic principle of the sublime remains. That is, both the early and late Romantics conceive of wilderness as the home of God. They subscribe to the myth of “the mountain as cathedral.” Through the concept of the sublime, wilderness shifted from a place of evilness to a place of divine presence. According to Cronon, “the sublime wilderness had ceased to be a place of satanic temptation and become instead a sacred temple, much as it continues to be for those that love it today.”<sup>21</sup>

The frontier is the second element in the cultural construction of the wilderness concept. The American frontier has played a particularly important role in the collective consciousness of this country. One of the central values associated with the frontier is primitivism. This is the belief that the “best antidote to the ills of an overly refined and civilized modern world was a



return to a simpler, more primitive living.”<sup>22</sup> This was the belief of Rousseau, but also a common belief of wilderness advocates. For example Robert Marshall claims, “it is only the possibility of convalescing in the wilderness which saves them [humans] from being destroyed by the terrible tension of modern experience.”<sup>23</sup>

Cronon claims the frontier myth received its most academic interpretation in the work of Jackson Turner. Turner viewed the frontier as being an important ingredient in the formation of the American character and culture. On the frontier Americans “shed the trappings of civilization, rediscovered their primitive racial energies, reinvented direct democratic institutions, and thereby reinfused themselves with a vigor, an independence, and creativity that were the source of American democracy and national character.”<sup>24</sup> However, by the time that he was writing in the 1890s, Turner claims, the frontier had already disappeared. An important part of the American character had passed away and this led many to want to preserve at least a part of it. This idea was expressed by Marshall and Leopold, but also among figures such as Theodore Roosevelt. Roosevelt wrote that “the frontier had come to an end; it had vanished. With it also vanished the old race of wilderness hunters...as a distinctive class, with a peculiar and important position in American life.”<sup>25</sup> The frontier was conceived as a significant influence in the creation of the American character. The preservation of wilderness was a way to preserve the frontier and the values it contained. Americans could still experience the wilderness that had once existed from the Atlantic to the Pacific in wilderness preserves.

In addition to helping create the American character the frontier also presented a means of escaping the restraints of modern civilization. On the frontier a person no longer had to deal with confining social relationships and structures. Cronon states, the frontier was a place “into which men escape by abandoning their pasts and entering a world of freedom where the

constraints of civilization fade into memory.”<sup>26</sup> Societal life was thought to deteriorate the individual, and take away, in the case of men, their masculinity. On the frontier a person that had become weakened by an overexposure to civilization could become a rugged individual. This belief was often held by rich urbanites that saw wilderness as an antidote to civilization.<sup>27</sup>

The combination of the frontier and the sublime, Cronon argues, created the traditional wilderness concept. Wilderness was seen as an escape from civilization. It was seen as the substance that formed the American character and culture. However, it was also viewed in a somewhat religious vein. This is the myth of the mountain as cathedral. Wilderness was viewed as being divine, or at least a place to experience the divine. The frontier myth and the sublime came together and shaped our contemporary conception of wilderness.

This wilderness concept, however, still separated humans from wilderness. The frontier was seen as a vacant and uninhabited land in which the forces of nature played the most prominent role. The frontier was a place where people could escape the modern human world and its constraints. It was the antithesis to civilization. Sublime wilderness was also a place apart from humanity; it was a place where deities lived. It was a place of non-human existence. Both of these concepts separated wilderness from humanity in the same way that wilderness was seen as separate in the Judeo-Christian tradition.

Thus, Cronon argues that while the wilderness conception became “freighted” with the values of the sublime and the frontier it still perpetuated the human-nature dichotomy. Cronon sees this as being a dangerous dualism that harms the environmental movement. The problem is that “wilderness embodies a dualistic vision in which the human is entirely outside the natural.”<sup>28</sup> This is a paradox because we cannot actually enter these areas without ruining them. We hold up wilderness as a grand place full of value in which humans can discover an existence superior to

the way we live in the civilized world. But we can never actually live in these places by definition.

Cronon thinks that conceiving of wilderness in this way is dangerous to environmentalism because it causes us to think that the places where we live are not natural. That is, by considering wilderness as being the most valuable place and its preservation as the most important conservation goal, then:

this would exclude from the radical environmentalist agenda problems of occupational health and safety in industrial settings, problems of toxic waste exposure on ‘unnatural’ urban and agricultural sites, problems of poor children poisoned by lead exposure in the inner city, problems of famine and poverty and human suffering in the ‘overpopulated’ places of the earth – problems, in short, of environmental justice.<sup>29</sup>

Cronon does not go into detail about a better way to conceive nature and wilderness. However, he is sure that the traditional wilderness conception “leaves little hope of discovering what an ethical, sustainable, *honorable* human place in nature might look like.”<sup>30</sup>

We have seen in this analysis that Cronon believes the contemporary wilderness idea is the product of a particular history. Specifically this was the combination of the Judeo-Christian human-nature dichotomy with the conceptions of the sublime and the frontier. People, such as Muir, Leopold and Marshall, began to view wilderness in a positive light. However, this new conception still conceived of wilderness as separate from humanity, as a place un-modified and uninhabited by humans. Although Cronon does not directly discuss what a better conception of wilderness might look like he does hint at some issues that should be taken into account.

First, Cronon reminds us that humans have actually been living in these wilderness areas for many years. Native people inhabited these areas and subsisted on the resources they provided. Our current wilderness areas only became uninhabited once native people were forced from their land after years of battling the United States military. Cronon states,

The movement to set aside national parks and wilderness areas followed hard on the heels

of the final Indian wars, in which the prior human inhabitants of these areas were rounded up and moved onto reservations. The myth of wilderness as ‘virgin,’ uninhabited land had always been especially cruel when seen from the perspective of the Indians who had once called that land home.<sup>31</sup>

Better conceptions of nature and wilderness must be one in which humans are not excluded from the land.

Second, rather than being completely shaped by natural forces wilderness areas have actually been manipulated by a native people. “Everything we know about environmental history suggests that people have been manipulating the natural world on various scales for as long as we have a record of their passing” explains Cronon.<sup>32</sup> A wilderness area cannot be thought of as a place un-manipulated by people and being primarily shaped by natural forces. We must think of natural areas as coming into being in part because of the presence of humans. Both of these perspectives on wilderness will be discussed in the next two sections.

It is easy to see how this view is different from the traditional wilderness conception discussed in the first chapter. Wilderness was an ontologically unique place by virtue of being shaped by natural forces, having natural origins, and lacking human inhabitants and structures. Cronon describes the wilderness conception as simply being a construct of culture. The three characteristics listed above are not attributes of wilderness but constructed concepts. There is no human-nature dualism in reality; rather there is a human-nature unity.

#### The Historical Presence of Humans in Wilderness Areas

As mentioned above, one of the central characteristics of the traditional wilderness concept is that wilderness lacks human inhabitation. This characteristic is clearly stated in the Wilderness Act by defining wilderness as a place where “man himself is a visitor who does not remain.” This characteristic, however, has been rigorously contested for ignoring the actual presence of humans in most ecosystems. These criticisms serve two basic purposes. First,

noting the current and historic human presence in wilderness supports the cultural construction theory. It shows the traditional wilderness concept describes places that do not really exist. Thus, the wilderness conception is a creation of our culture rather than a direct reflection of the world. Second, displaying the presence of people in wilderness areas allows for a guide in developing a better conception of nature which will in turn lead to better policies. That is, these critics hope to change wilderness and environmental policy to include humans. In this section I will look at some of the arguments and literature that influenced Cronon and changed the way a number of environmentalists view the human place in nature.

When Luther Standing Bear discusses nature he is not referring to a far off place uninhabited by humans, but rather to the world where he lives. Standing Bear emphasizes the interconnection between his people and the surrounding natural environment. He asserts that “The ‘great out-doors’ was Reality and not something to be talked about in dim consciousness.”<sup>33</sup> This challenges the alleged gap between humans and nature. Nature, including wilderness, was not something discussed in books or at lectures, but rather, was a place that was lived in. It was “Reality.” It provided nourishment, shelter, and educated the Indians about the world. Standing Bear comments that, “Knowledge was inherent in all things. The world was a library and its books were the stones, leaves, grass, brooks, and the birds and animals that shared, alike with us, the storms and blessing of the earth.”<sup>34</sup> The areas that were considered uninhabited wildernesses by preservationists had really been populated with people who had an ancient and intricate connection with these places.

It took nearly fifty years before Standing Bear’s point of view became an important criticism discussed in environmental literature. Ramachandra Guha’s article “Radical American Environmentalism and Wilderness Preservation: A Third World Critique” began a period, still

occurring today, in which many criticisms have been leveled at the traditional wilderness conception for its exclusion of humans. In this article, Guha criticizes deep ecology, specifically the American version, and the export of the wilderness ideal to third-world countries.

Guha's critique focuses on four central characteristics of the deep ecology movement. However, the second characteristic is the most relevant to a discussion of wilderness. Guha describes deep ecology as rigorously stressing the importance of preserving wilderness areas, and restoring other areas to a "pristine" condition, over other environmental concerns. This, Guha thinks, is problematic.<sup>35</sup>

This is because advocates of wilderness often disregard the historic presence of humans in these areas. Guha's main argument is that the kind of preservation policy that is practiced in the United States cannot be implemented in many countries that have different histories, population density, and relationships to the land. In the United States, the sanctioning of large tracts of unoccupied land is possible because Americans possess a "vast, beautiful and sparsely populated continent." Guha warns that implementing a wilderness preservation system in countries like India is detrimental to the rural people that traditionally subsist from the land.<sup>36</sup>

Guha's criticism of wilderness centers on the historic presence of humans in the areas of India turned into parks. "Because India is a long settled and densely populated country in which agrarian populations have a finely balanced relationship with nature, the setting aside of wilderness areas has resulted in a direct transfer of resources from the poor to the rich."<sup>37</sup> In order to display this harm Guha refers to Project Tiger. Project Tiger is a program of the Indian government in which, "various tiger reserves were created in the country on a 'core-buffer' strategy. The core areas were freed from all sorts of human activities and the buffer areas were subjected to 'conservation oriented land use'."<sup>38</sup> Guha points out that the creation of these parks

was only possible by evicting native people from the land. Guha considers the creation of these parks as the work of two main groups of people. The first are international conservation and preservation groups such as the World Wildlife Fund and the International Union for Conservation of Nature. Second, this has been the work of Indian elites who are “ex-hunters turned conservationists.”<sup>39</sup>

The creation of wilderness areas in India is conceived as being imperialistic, ignoring the needs of the rural poor and distracting from more important environmental concerns such as “water shortages, soil erosion, and air and water quality.”<sup>40</sup> Wilderness is imperialistic because it is exported to India from America in order to give rich tourists a place to go see wildlife. All the while these areas are actually harming the people that used to live in them. In this sense the wilderness ideal in India ignores the needs of the rural poor who call these areas home. The only people taken into consideration are a small group, namely tourists and an Indian elite, who have the resources and time to enjoy these places. By concentrating on sanctioning wilderness we overlook other pressing issues that exist in India and many other places. This is similar to when Cronon claims that focusing on wilderness blinds humans from achieving a healthy relationship with nature. While a small area is preserved the rest of India is threatened with polluted water, eroded soil and other environmental problems.

This critique focuses mainly on the problem of exporting the wilderness ideal to the third world. It also critiques the wilderness idea generally by calling into question the validity of considering wilderness areas uninhabited. This is thought to be a culturally constructed Euro-American concept that does not accurately reflect the reality of the human-nature relationship in India. Although Guha thinks that wilderness preservation is applicable in America there have

been many criticisms following Guha asserting that the wilderness concept is also flawed in an American context. That is, wilderness areas in America have also been inhabited historically.

There is no need for an argument about whether or not North America was inhabited by humans. This is a fact about the North America continent. However, there have been two central misconceptions regarding Native Americans. First, the number of Native Americans populating North America at the time of European contact has been underestimated. Second, the extent to which native people manipulated and managed the land has also been misunderstood. I will address the first of these concerns in this section.

J. Baird Callicott in the essay “The Wilderness Idea Revisited” discusses the population of Native Americans at the point of contact and suggests why people thought that these populations were much smaller. Callicott notes that, “until rather recently it was possible for environmental historians to minimize the ecological importance of the original human inhabitants of the New World because the decimating effects of Old World diseases had not been taken into account.”<sup>41</sup> The widely used estimate of the population of American Indians at the time of contact was about one million. The anthropologist Alfred L. Kroeber calculated this number in 1939. However, this measurement did not take into account the rapid spread of disease that swept through the American Indian population. Henry F. Dobyns made a more accurate measurement in 1966 and concluded that Kroeber’s estimate should be multiplied by a factor of ten.<sup>42</sup>

With such an increased population density the presence and effect of Native Americans on American ecology would also be substantially more dramatic. Native populations cannot be considered to be as sparse and spread out as earlier thinkers concluded. This further adds to the problem of considering North American lands as uninhabited wilderness. At the time of



European contact, North America was not empty, but instead supported perhaps ten times the amount of people than was once thought. The native populations, by the time European settlers were making their way into the North American interior, were substantially less than before European contact. These settlers' conceptions of the density of native populations were highly influenced by this fact, and contributed to the idea of an uninhabited American wilderness.

Many of the arguments criticizing the wilderness conception have centered on the historical fact of people living, or once living, in places considered wilderness. However, there have been other arguments that question the separateness between humans and nature more generally. These arguments claim that humans are just as natural as any other species on earth. Callicott offers a version of this position. Callicott first defines the nature-human dichotomy discussed earlier as pre-Darwinian thought. He then describes the shift in thinking that has occurred after Darwin's writings and the spread and acceptance of evolutionary theory.<sup>43</sup>

Since the discovery of evolution by natural selection the conceptual relationship between humans and nature has changed drastically. Before Darwin humans were seen as separate from nature in both the Greco-Roman and Judeo-Christian traditions. After Darwin it has been realized that all animals, including humans, have emerged through the process of evolution. This means, Callicott reasons, that there no longer exists a rift between humans and other animals.

We all share a common heritage and are part of the same nature. Callicott states, "Since Darwin's *Origin of Species* and *Descent of Man*, however, we have known that man is a part of nature. We are only a species among species, one among twenty or thirty million natural kinds."<sup>44</sup>

Callicott thinks the traditional wilderness conception ignores this reality. Like Cronon, he believes the wilderness conception continues the tradition of placing humans outside of

nature. However, because of our evolutionary history it is evident that humans are a part of nature, and thus humans and human actions should be considered natural. Callicott concludes: “If man is a natural, a wild, and evolving species, not essentially different in this respect from all the others...then the works of man, however precocious, are as natural as those of beavers, termites, or any of the other species that dramatically modify their habitats.”<sup>45</sup>

Callicott is questioning the meaning of the word “natural” in traditional wilderness thought. He thinks that natural must also include humans because, evolutionarily speaking, there is no difference between the origin of humans and any other species. That is, there is no metaphysical divide between humans and the natural world. To refer to something as natural does not, as Robert Elliot used the word, mean, “unmodified by human activity.” Rather, naturalness has a wider meaning that includes humans, and human activities. This would also change the meaning of possessing natural origins and being shaped by natural forces. No longer would these characteristics exclude human presence and manipulation.

These critics argue that defining wilderness as a place without human inhabitants is wrong. It arises from a cultural construction of the relationship between humans and nature. In reality humans are natural and inhabit the majority of the earth. Moreover, considering wilderness as uninhabited leads to other negative effects, such as the displacement of native people from traditional land, and blinds people to other pressing environmental concerns. In the next section I will look at another aspect of the traditional wilderness conception that has also been highly criticized: wilderness as un-modified by humans.

### Human Modification and Manipulation of Wilderness Areas

Wilderness advocates might argue that even with the reality of the historic and current presence of people in places deemed wilderness, some other more central characteristics of wilderness persist. These characteristics are being shaped by natural forces and possessing natural origins. After all, wilderness advocates knew that Native Americans had inhabited the entire North American continent. This did not change the fact that these places were considered wilderness. This is because most believed that the Native Americans did not substantially modify their surroundings. John Muir reflects that “the Indians with stone axes could do them no more harm than could gnawing beavers and browsing moose.”<sup>46</sup> Although using nature for resources, these humans did not extensively alter the ecosystems they lived in. It seems, however, that Native Americans did manipulate their environment and were not just passive components in the overarching ecosystems they inhabited. In this section I will discuss some of the modifications native people enacted on the land, and what this says about the traditional wilderness conception.

In a recent historical analysis by the United States Forest Service titled “Aboriginal Use of Fire: Are There Any ‘Natural’ Plant Communities?” author, Gerald W. Williams, argues that Native Americans used prescriptive burning methods throughout North America. This analysis details prior concepts of these lands as unmodified by humans before the introduction of Europeans. Through an analysis of historical documentation recorded by early settlers and explorers, Williams presents a portrait of North America as being highly altered by prescribed burning methods. In this description he claims that humans “are part of ecosystems, have evolved with ecosystems, have used parts and pieces of ecosystems for survival, and have

changed portions of ecosystems for their needs.”<sup>47</sup> In short, the forests and grasslands that covered North America were largely human-modified environments.

Williams lists a number of different uses of fire Native Americans developed to shape the landscapes surrounding them. I will list only a few to illustrate the effects of this practice. First, prescribed burning was often used for hunting. This was used to divert large game (deer, elk and bison) into small unburned areas for easier hunting. A second use of fire was to improve growth and yields of plant species prized by certain tribes. For example, burning improved the abundance of oak trees, and thus acorns, in what is now California. Fire was used to improve the grass in which such animals as elk and bison grazed. A third use was to clear out the underbrush to create a “park like” setting more accommodating to travel.<sup>48</sup>

Williams is not alone in arguing that Native Americans significantly modified their environments. Stephen Pyne is a central figure in the spread of the idea of aboriginal fire management. Pyne is an expert on fire history and has written about the human-fire relationship extensively. He believes that humans have long been able to manipulate fire and thus modify their environments. This has happened wherever humans have lived, including America. He contemplates in his book *Fire in America* that “the evidence for aboriginal burning in nearly every landscape of North America is so conclusive, and the consequences of fire suppression so visible, that it seems fantastic that a debate about whether Indians used broadcast fire or not should ever have taken place.”<sup>49</sup>

The landscape changes discussed by Pyne are sweeping. Pyne describes widespread changes to the American environment including the spread of grassland as the dominant land type. Grasslands with small forest sections were best for hunting and the ideal environments for Native Americans. These environments were often created through particular prescribed burning

methods, and became a very common land-type in America. In fact, grasslands were most likely the dominate land-type in America at the time of European contact. Pyne notes that “the role of fire in sustaining these landscapes is incontestable; when broadcast burning was suppressed as a result of European settlement, the land spontaneously reverted to forest.”<sup>50</sup>

There have also been arguments made to the effect that the nature-human relationship actually benefits an area’s “health.” In a piece co-authored by Arturo Gomez-Pompa and Audrea Kaus titled “Taming the Wilderness Myth” the authors critique the wilderness conception from the perspective of the human-nature relationship of aboriginal people. Namely, they discuss an area of central Mexico where native slash-and-burn farming has yielded ecosystems that are healthier than other surrounding areas.<sup>51</sup>

The evidence for this hypothesis was presented in the after-math of a massive fire near Cancun in 1989. Views from helicopters revealed that the fire had ravaged areas that had been mined for exotic woods while leaving areas managed by native people untouched. That is, “the burned area around Cancun revealed that the line of fire has stopped in areas of slash-and-burn agriculture.”<sup>52</sup> Slash and burn agriculture is an ancient method in which a small area is cut down and burned. This adds nutrients to the soil and clears the area for other plants. After a short period of use the area is allowed to grow back to its “original” state. Both landscapes, the slash-and-burn areas and the mined areas, were human-modified environments. This suggests that while some human modifications are detrimental others are beneficial, and that it is possible for humans to actually improve the health of an ecosystem.

However, both of the landscapes were human modified. A more important question is: how does a human-modified area compare to an area unmodified by humans? Callicott, building from the work of ethnobotanist Gary Nabhan and conservation biologist David Ehrenfeld, argues

that human-modified environments can be healthier than areas without human involvement. These are examples of “mutually sustaining and enhancing human-nature symbioses.”

Callicott discusses a situation in which a human modified oasis increased biodiversity among birds. In this case two oases only thirty miles from each other developed two different ecosystems. One oasis is in Mexico while the other is in the United States. The United States’ oasis is in the Organ Pipe Cactus National Monument, is a bird sanctuary, and thus off-limits to agricultural use. The Mexican Oasis is still occupied by Papago farmers (native people, who long before the existence of Mexico and the United States, farmed both oases).<sup>53</sup>

Counter to conventional wisdom about ecosystem health, the farmed area had more bird diversity than the bird sanctuary. The oasis designated as a bird sanctuary, and protected from agricultural development, was found to support thirty-two species of birds. The Mexican oasis farmed by the Papago supported sixty-five species of birds. Birds are drawn to the increased water and vegetation that accompanies farming. Although Callicott acknowledges, “species richness is not the only indicator of ecosystem health” he still concludes, “undoubtedly the desert ecosystem has been enriched rather than impoverished by millennia of Papago habitation and exploitation.”<sup>54</sup> Thus, there is evidence that a human-modified area can be healthier than an area protected from human involvement.

However, it is important to point out that there are many problems with discussing an ecosystem in terms of its “health.” Callicott seems to think that increased diversity is an indicator of an area’s health. However, it is easy to think of examples where this is not true. For example, a zoo has a lot more diversity than many other areas. Yet, we would not consider a zoo to be a healthy ecosystem. The discussion above is really only supposed to show that human

presence in an ecosystem is not always detrimental to the area. Whether or not humans promote the health of an ecosystem is certainly debatable.

We see in these examinations that humans have modified and managed the environments in which they live. These changes, in some cases, have been very dramatic. Pyne, when describing the grasslands of North America claims that “nearly all these grasslands were created by man, the product of deliberate, routine firing.”<sup>55</sup> These studies conclude that the wilderness characteristic of being primarily shaped by natural forces is mistaken. Humans have been active in managing ecosystems and creating favorable environments. Much of the North American landscape at the time of European discovery was not pristine wilderness, but rather a place highly managed and modified by Native Americans. Thus, these areas also lack “natural” origins. They arose out of an intricate relationship with humans. Through controlled burning people were able to change the appearance of their environment as well as the distribution and diversity of particular species.

#### The New Ontological Status of Wilderness

In the first chapter I discussed the way that wilderness was viewed as ontologically separate from humanity by virtue of particular characteristics. Wilderness is that place shaped by natural forces, possessing natural origins and lacking human inhabitation and human structures. Wilderness is an ontologically distinct environment that is identifiable in the world. In this chapter I discussed the way that these conceptions are false and culturally constructed. It is important to look at how these changes in the perception of wilderness changes its ontological status.

In order to highlight the way that the wilderness concept has been altered I would like to refer back to the example of the great tail grackle and how it represents both the way the world

can be ontologically divided as well as the way this ontological structure is a cultural construction. The example highlighted the way certain characteristics of a bird are used to categorize it into separate groups. The bird's characteristics, such as not being sympatric with the boat tail grackle in Gulf States, led to its classification as its own species separate from other groups of birds.

However, when this classification is considered in light of cultural constructionism the distinction between birds becomes primarily a product of culture. Brunson claims that "taxonomy changes...because of the evolution of meanings that scientists assign to taxonomic categories of organisms."<sup>56</sup> That is, what separates grackles into ontological groups is not so much a characteristic of the birds but a characteristic of the system of taxonomy and the thoughts and conceptions of scientists. There is a gap between the way organisms have been culturally constructed into particular groups and the actual differences between the birds themselves. Thus there is no such thing as a great-tail grackle in the natural world. There are only cultural constructions of the great tail grackle and other grackles, and groups of birds with certain characteristics that exist in some relation to each other.

A similar thing has happened to the traditional wilderness conception. If wilderness is thought to be a cultural construction of those of Euro-American descent, then concept of wilderness no longer refers to an objective place. There is only the cultural conception of wilderness, and a natural world onto which the conception of wilderness is projected. This consequence of postmodern cultural constructionism essentially separates the cultural world from the physical world. Reuniting the concept of wilderness with the physical world it refers to will be the central focus of the third chapter.



It is important to point out, though, that there are physical places considered wilderness. As noted toward the beginning of this chapter, the physical world certainly exists. The suggestion that cultural constructionism means that there is only a cultural reality, and not a physical reality, is a common misinterpretation. This was pointed out by Alan G. McQuillan in his article “Defending the Ethics of Ecological Restoration.” He insists that when cultural constructionists suggest that nature does not exist they mean that the concept of nature “does not have an independent being outside human minds; it is rather a set of ideas.” McQuillan contends that there is of course a physical reality, “the real is out there – beyond the mind – it is the “other,” the truly wild that intrudes on the mental world.”<sup>57</sup>

Thus, many critics still seem to believe that nature does possess characteristics that are beyond cultural constructions. Cronon claims “the nonhuman world that we encounter in wilderness is far from being merely our own invention.”<sup>58</sup> And after mentioning a few personal wilderness experiences, he adds: “remember the feelings of such moments, and you will know as well as I do that you were in the presence of something irreducibly nonhuman, something profoundly Other than yourself. Wilderness is made of that too.”<sup>59</sup> Callicott claims that some lands should be preserved and left free of human activity, for example old growth forests. These authors, however, often minimize the importance of these wilderness characteristics and concentrate on the way culture constructed the wilderness concept.

In addition to claiming that the wilderness concept is a cultural construct the other central thrust of contemporary wilderness critiques is that nature and humans, rather than being separate and belonging to different categories, are deeply interconnected. This is the point that Standing Bear, Callicott, Guha and Cronon all argue. Callicott argues that evolution makes us just one species among others. Guha and Standing Bear argue that rural populations, and native

people, have a meaningful relationship with the land. Cronon thinks that the nature-human dichotomy disguises human-nature interconnectedness. All of them are describing a world in which nature and humans are inseparable.

This conception is commonly referred to as an *organic* view of nature. In this view nature and humans are not seen as separate and occupying two different realms of reality. Rather, with the organic view “the line between nature and culture is seen as blurred if it exists at all.” Brunson considers this view both the oldest and newest orientation toward nature.<sup>60</sup> It is old because it has commonly been the belief of indigenous cultures, such as the one described by Luther Standing Bear. It is new in regard to many of the critiques of wilderness that we have just reviewed.

Wilderness can no longer be a place that is unoccupied by humans, shaped primarily by natural forces and possessing natural origins. It has, in fact, been both historically inhabited as well as manipulated by human populations. Humans have sustained an intricate relation with nature and have historically altered their environments. Humans are a part of ecosystems, intentionally alter these systems, and at times contribute to an area’s health. That is, we do not live in a world where we can separate humans from nature.

In order to understand these changes in an ontological framework it might be best to draw another analogy. This time instead of taxonomy, consider wilderness as compared to the ontological status of God. In the first chapter I discussed two different conceptions of God in order to highlight what I mean by “ontologically separate.” These conceptions of God, God as transcending the world and God as the world (pantheism), seem to reflect the two views of wilderness being discussed.

In the first instance God is thought of as transcendent. This view of God is commonly associated with Western religion. The Judeo-Christian and Islamic God is thought by many to exist outside the physical world. God created the world, but exists independently in a way that is beyond space, time or any of the other constraints of the physical world. Ontologically in this view there exist two main things: the world and God. God created the world but is still separate from it. This relation is analogous to a carpenter and a chair. The carpenter builds the chair, uses it, mends it, and if need be replaces parts, but is always outside the chair. If the chair is destroyed the carpenter remains.

The traditional wilderness conception is analogous to the transcendent God conception. Wilderness is thought to stand apart from humans and exist independently. Although humans have been born out of the natural world through a complex evolutionary history, we still stand in opposition to this world. Nature and humans are two different things that exist in an ontologically separate way. There exist two separate things in the world: wilderness and humans.

Pantheism, on the other hand, claims that rather than a transcendent God that stands apart from the world, God is the natural world. Pantheists believe that, “everything there is constitutes a unity and that this unity is divine.”<sup>61</sup> God exists in the trees, rocks and birds. God is bound to the physical world in the same way that our minds are bound to our bodies, and exist in a process of birth, life and death. Pantheism, ontologically speaking, views the world and God as one thing.

The organic view of the nature-human relationship is analogous to the pantheistic view of God and the world. Nature and humans are not thought to be separate but instead exist in a unity. Humans are just as natural as all other creatures. We evolved with the world and are

intricate parts of the ecosystems we occupy. There is no nature-human dichotomy, just one unified nature in which we are a part. In this view there only exists one unified thing: nature.

Thus we see that, ontologically, the conception of wilderness developed by countless individuals during the nineteenth and twentieth centuries has been drastically transformed at this point in history. No longer is it appropriate to speak of a “wilderness” lacking human modification and influence, and existing separately from humans. Wilderness defined in such a way, according to contemporary thought, does not exist. The traditional wilderness conception, like the great tail grackle, is an invention of culture and misrepresents the natural world. Rather, humans and nature are intricately connected in the same way bears are connected to their environments. We have evolved within, are supported by, and in some ways support, the Earth’s complex ecosystems.

In the next chapter I will discuss some problems with viewing wilderness as merely a cultural construction. I will try to find a way to mediate between the traditional wilderness conception and the belief in a culturally constructed wilderness conception. The end result is a wilderness that certainly exists but not in the same way that it is portrayed in the Wilderness Act. I will discuss the works of N. Katherine Hayles and Christopher Preston and argue for the importance of place. Namely, all meaning does not come from culture but also from physical environments that differ in structure, texture and substance. I argue that these physical environments are directly involved in the shape of the wilderness concept, rather than simply being a passive recipient.

### CHAPTER THREE: PHYSICAL ENVIRONMENTS, INERACTIVITY AND WILDERNESS

*Highways wound up valleys which had known only the footsteps of the wild animals; neatly planted gardens and orchards replaced the tangled confusion of the primeval forest; factories belched up great clouds of smoke where for centuries trees had transpired toward the sky, and the ground cover of fresh sorrel and twinflower was transformed to asphalt spotted with chewing gum, coal dust and gasoline.*

*Robert Marshall<sup>1</sup>*

In this passage Marshall discusses the dramatic changes that occurred on the American continent after the influx of European settlers and culture and the advent of the Industrial Revolution. These changes transformed ecosystems and altered landscapes in radical ways. Many places, such as Manhattan Island, became irreversibly transformed from forest and meadows to concrete and steel. In this statement Marshall seems to be acknowledging that physical environments vary greatly and certain characteristics unique to particular areas define these areas and shape our conceptions of them. The “tangled confusion” of plants provides a very different experience from “planted gardens and orchards.” Smoke stacks are visually different from trees, and the textures of sorrel and asphalt provide dissimilar experiences. These physical characteristics seem important to how we experience and think about different places. As opposed to Cronon, I think that there is something *natural* about the concept of wilderness. In this chapter I want to explore the way that interactions with physical environments shape the way we construct concepts. Specifically, I want to discuss the way physical environments shape the wilderness concept.

In the first chapter I described wilderness as ontologically separate from humanity. The human world and wilderness were conceived as two very different things existing in opposition to each other. Wilderness was defined as a place lacking human influence and presence and being shaped by natural forces. Wilderness was thought of as an ontologically distinct environment. In the second chapter I described Cronon’s cultural constructionist view of

wilderness. According to this view wilderness is a concept constructed by Euro-American culture. Wilderness is considered to be a mythical conception, reflecting a Euro-American cultural history rather than an objective place. A second critique of the traditional wilderness conception in the second chapter is that this conception is harmful because it reinforces a human-nature dichotomy. Instead of existing separately from humans, nature and humans are thought to have an organic relationship. There is no clear separation between things natural and human.

In this chapter I will present an alternative way of thinking about the wilderness conception and how it is constructed. I feel that while the idea of a culturally constructed wilderness concept is both illuminating and interesting there are still places that can rightfully be called wilderness. The wilderness conception is not entirely cultural and seems to refer to the texture of actual physical environments. But the traditional Euro-American way of viewing wilderness also seems flawed. Many recent criticisms have raised important objections to the way wilderness has been conceived: namely the way it is defined in the Wilderness Act. In this chapter I want to preserve the idea that wilderness is a unique place identifiable in the world and that this place is different from most human environments. However, I also want to acknowledge the role of culture in the construction of concepts and the very real human-nature interconnectedness.

This examination will be both epistemological and ontological. I will first focus mainly on *how* physical environments help to shape concepts of wilderness. This section will center on epistemological issues. I will examine the different influences that shaped the wilderness conception. I argue that concepts referring to places (farms, cities, wildernesses, trash dumps, hospitals, parks) are *in part* shaped by the structure of the physical environment itself. The wilderness conception, in some situations, will then be partially a product of the physical

structure of the area. I believe this leads to the conclusion that the wilderness concept, rather than being completely a construction of culture, refers in to an ontologically distinct place. Thus, at the end of this chapter I will turn back to an ontological discussion of wilderness and try to identify an essential characteristic of wilderness areas. This section will center on characteristics of a wilderness area itself rather than on the formation of the concept of wilderness.

In order to make this argument I will use the concepts of interactivity, constraints and place to show that the wilderness concept seems to be partially shaped by particular environments. I should note that I will not conclude this chapter by giving a detailed definition of wilderness. Rather, this chapter will only outline a different way of looking at the wilderness conception that may help to mediate between the views expressed in the first two chapters. First, I will discuss a few problems with the view that the wilderness conception is completely culturally constructed. I will then discuss interactivity as a mode of constructing concepts of wilderness. Third, I will argue for the importance of physical environments in concept construction. Last, I will discuss how physical environments and interactivity, coupled with the idea of “constraints,” help to better describe the origin of the wilderness concept and mediate between the ideas presented in the first and second chapters.

#### Problems with the Culturally Constructed Wilderness Concept

Many wilderness advocates have defended the wilderness conception against the criticisms featured in the last chapter. These counterarguments question the assertions that wilderness is a cultural construction, harmful to environmentalism, and that humans are natural and not essentially different from other species. Some central figures in the defense of the traditional wilderness conception are Holmes Rolston III and Dave Foreman.

Often wilderness advocates employ practical arguments against the view that the wilderness concept is a cultural construction. They argue that presenting wilderness as only a cultural construction runs the risk of reversing progress made in protecting land from exploitive practices such as logging. Although the intentions of Cronon and Callicott are good their arguments might be used by people who want to exploit wilderness resources. If there is no such thing as wilderness then why protect it? That is, if humans have modified most environments then it seems permissible to modify areas with activities such as road building, oil drilling and logging. They argue that, simply for the sake of protecting these areas, the traditional wilderness conception should be used because this view sees wilderness as an ontologically distinct environment.

Another area that has been widely discussed is the impact of modern humans, native cultures and animals on ecosystems. As shown in chapter two, many criticisms of the traditional wilderness concept have argued that a clear separation between humans and other parts of nature cannot be made. Rather, humans are just as much a part of the natural world as anything else. To display this most critics have pointed to the way that native cultures modify the land through activities such as burning. They argue that since Native people had modified most areas, then considering wilderness as unmodified is a mistake. All areas are somewhat modified by humans.

Rolston disagrees with this conclusion. He argues that the kinds of changes that Native Americans imposed on their environments were very different from the way that contemporary people change the land. The exclusion of humans and human activity found in the traditional wilderness conception refers to contemporary Western human change. Burning, although intentionally used by Native Americans to certain ends, is still very different from clear cutting a forest, paving large portions of it and turning the rest into a housing development. Rolston



thinks that these differences are often over-looked by wilderness critics. All anthropogenic change is treated the same although some changes (bulldozing a forest) are more dramatic, and less natural, than prescribed burning practices.<sup>2</sup>

Rolston also challenges Callicott's claim that "if man is a natural, a wild, and evolving species, not essentially different in this respect from all the others...then the works of man, however precocious, are as natural as those of beavers, termites, or any of the other species that dramatically modify their habitats."<sup>3</sup> Rolston argues that the intentional ecological changes that humans are able to enact are radically different from all other animals. Other animals do not have the power to clear-cut a forest or plow a prairie. Humans have the unique ability to completely change an area's physical characteristics and make it an entirely human environment. These are things that only humans are able to do. Thus, there are large differences between contemporary Americans, Native Americans, and other animals when it comes to the modification of habitats. It seems mistaken to conflate all three as equally natural.<sup>4</sup>

Although these objections are important this chapter will center on two other problems. First, considering wilderness a cultural construction invokes the problems associated with relativism. It becomes very hard to compare concepts and make value claims. Second, concentrating heavily on socio-cultural factors ignores the way physical environments shape conceptions. Although this section will deal specifically with the wilderness conception, these problems can be applied to most forms of strong cultural constructionism.

Cultural constructionism is a form of relativism. Relativism is often presented as opposed to objectivism. While objectivists believe that there is a knowable objective truth, relativists, as the name suggests, think that truth claims are relative to other factors. Relativism is defined by Richard Bernstein as:

The basic conviction that when we turn to the examination of those concepts that philosophers have taken to be the most fundamental - whether it is the concept of rationality, truth, reality, right, the good, or norms – we are forced to recognize that in the final analysis all such concepts must be understood as relative to a specific conceptual scheme, theoretical framework, paradigm, form of life, society, or culture.<sup>5</sup>

In the case of wilderness the concept of reality is relative to socio-cultural factors. The wilderness conception does not refer to an objective wilderness, but is rather relative to Euro-American culture.

The problem with relativism is that it tends to make value judgments difficult. This problem was summed up by Bernstein. “Implicitly or explicitly, the relativist claims that his or her position is true, yet the relativist also insists that since truth is relative, what is taken as true may also be false. Consequently, relativism itself may be true and false.”<sup>6</sup> This is a problem because most critics of the ontological wilderness conception subscribe to another equally constructed concept: humans as completely natural and occupying and manipulating most of the earth. Like Cronon, most believe that the traditional wilderness concept distorts a more organic human-nature relationship. They believe that thinking about humans and nature in an organic way is a more *accurate* way to view this relationship. These conceptions of a human-nature organic relationship, however, stem from certain beliefs related to the way Native Americans lived before European settlement. It is believed that native peoples manipulated the land through routine burning and largely changed the ecological landscape in America. These ideas, in accordance with cultural constructionism, are cultural constructions about Native Americans. Although these conceptions are grounded in a lot of anthropological evidence, these studies are interpreted by researchers that carry particular cultural beliefs and values.

If all concepts are culturally constructed than how can people gauge which concepts better represent the world? Each concept would only be relative to each culture at particular points in time. This is the problem of relativism. N. Katherine Hayles describes how this

dilemma relates to science. She states, “If scientific theories are merely social constructions, is science not trapped in a self-reflective circle, mirroring the assumptions of its day and unable to reach beyond them?”<sup>7</sup> Hayles worries that cultural constructionism “threatens the very foundations of science, for it seems to imply that science does not play a privileged role in discovering the truth about reality.”<sup>8</sup>

This problem, although in a different form, has been identified by philosopher Russ Shafer-Landau in regard to ethics. Shafer-Landau is a moral realist and is arguing that ethics are objective. He does not believe in moral relativism and subjectivism. He believes that ethical principles are universal. Some of his central arguments deal with “moral progress,” “moral error,” and “moral comparison.” All of these, he reasons, are possible because there are ethical principles to compare human actions, policies and beliefs. For example, most would consider the abolishment of slavery as moral progress. It is believed that Americans have moved beyond an unjust system of slavery and developed more ethical institutions. When the question is asked “why is this moral progress?” the answer must be that there is an ethical standard that we are progressing toward. If ethics were completely relative to a culture’s moral code at a certain place and time, then there would be no basis to make this judgment. Having slaves and not having slaves would be morally equivalent.<sup>9</sup>

The conception of wilderness seems to be a similar situation. Every conception of wilderness cannot be considered equal to every other. If this were true then conceptions of wilderness as a place completely unmodified and untouched by humans would be just as correct as the belief that most areas of the earth have been altered by human presence. Both views, although contradictory, would be equally true. Thinking about conceptions as being purely the product of culture invokes these problems.

A second problem with Cronon's cultural constructionist account of wilderness is that it tends to only emphasize the different cultural, literary and societal factors of our conceptions. This ignores other elements that most likely contribute to human understanding of wilderness. One of these elements is the physical characteristics of wilderness.

In Cronon's analysis of the evolution of the wilderness conception he places little weight on the changing physical environments that existed during these times. Physical environments in the United States and Europe were undergoing drastic changes over the 250 years Cronon claims the wilderness conception became recreated to its contemporary form. These are the changes that Marshall is referring to in the quote at the beginning of this chapter. The modern city was expanding both horizontally and vertically, noisy machinery was replacing horse and human power, factories were polluting the air and water, and technological innovation was changing the rate that land could be deforested (or de-prairied) and turned to agriculture. Landscapes were rapidly changing at a speed never before seen in history. The physical differences between cities, farms and "wildernesses" were increasingly dramatic. These physical changes must have played a role in the way people conceived of each of these places.

Despite these changes, Cronon describes the emergence of the traditional wilderness concept mainly in terms of the evolution of other concepts. He focuses on the way that wilderness was conceived in Western religion, Romantic period poetry, and certain academic works. Missing from Cronon's examination are different ways that physical environments contribute to the formation of the wilderness concept. This is surprising considering that most wilderness writers, from Wordsworth to Marshall, experienced first-hand the texture and structure of the areas they described. Later I will discuss Marshall's examination of the aesthetic

beauty of wilderness. Marshall's account focuses largely on the experience of an individual interacting with these areas.

An area where Cronon's bias toward cultural factors is especially pronounced is in his discussion of why Americans chose to protect the places they did. Cronon reasons that these places were protected because they represent the romantic conception of sublime wilderness. He states, "the eighteenth-century catalog of their locations [sublime wildernesses] feels very familiar, for we still see and value landscapes as it taught us to do." These places were "mountains," "chasms," "waterfalls," and so on. If you think about Yellowstone, Yosemite, Grand Canyon, Rainer, Zion, Cronon argues, you "realize that all of them fit one or more of these categories." Whereas "less sublime landscapes simply did not appear worthy of such protection; not until the 1940's, for instance, would the first swamp be honored, in Everglades National Park, and to this day there is no natural park in the grasslands."<sup>10</sup>

Cronon, however, is failing to take into account other factors that are directly related to the physical environments of these protected (or unprotected) areas. These national parks (Yosemite, Zion) were places that were, at that time, largely undeveloped by American settlers. Many of America's swamps and grasslands had already been turned into agricultural land. The physical characteristics that these places once possessed had already been altered by the time of the preservation-conservation movement of the late nineteenth century. For example, the Great Black Swamp that had existed in the current states of Ohio and Indiana was one of the last areas east of the Mississippi to be settled. Even this hard-to-travel area was almost completely drained, de-forested and turned to agricultural land by the 1890's.<sup>11</sup> Yosemite did not become a national park until 1890 and Zion did not become a park until 1909. These areas did not become national parks solely because they represented examples of sublime wilderness, although this

was surely a factor. Rather, they were also chosen because their physical characteristics had not yet been altered by human development. The physical characteristics of these places helped to form our conception of them and provided the grounds for preservation.

I should point out, though, that this idea does not seem to be contradictory to Cronon's. In fact, at times Cronon seems to hint at the importance of physical structures. There are a few places where Cronon mentions the physical features of wilderness without specifically discussing the ways these features are important in the construction of the wilderness concept. One important place, mentioned in Chapter Two, is where Cronon asserts that "the non-human world we encounter in wilderness is far from being our own invention." He then goes on to describe memories of his own experiences in wilderness and notes that these memories "are also familiar enough to be instantly recognizable to others." These are experiences of seeing a red fox in earlier morning, or standing near a great waterfall and feeling the mist cool your face. Cronon acknowledges that in these situations we are experiencing something "irreducibly non-human" and that "wilderness is made of that too."<sup>12</sup>

However, instead of looking more deeply into the influences of these non-human physical environments in the construction of the wilderness concept he turns back to the discussing the role of culture in that construction. Thus, he begins the following paragraph with the sentence, "and yet; what brought each of us to the places where such memories became possible is entirely a cultural invention."<sup>13</sup> Cronon continues from there to lay out his argument for the cultural construction of wilderness. Cronon is right to insist that the received wilderness conception has been significantly shaped by cultural influences. However, I believe that operating along with these cultural forces are the influences of physical environments in shaping the wilderness conception. In my examination I would like to pick up where Cronon left off, and

look more closely at the influence of physical environments that I feel Cronon is hinting at but does not elaborate on.

In this chapter, I argue that the physical characteristics of places, in addition to culture, contribute to the formation of our concepts. This view is supported by a number of recent works acknowledging the importance of physical environments and embodiment in the construction of knowledge. Cronon suggests that the concept of wilderness was created from culture and then attached to places like Yosemite later. I argue that the contours and textures of physical environments themselves contribute to the creation of concepts. Hayles, for example, discusses the “complex ways in which physical environments, embodiment, discourse and ideology collaborate to create a world.”<sup>14</sup> Christopher Preston in his book *Grounding Knowledge* argues that “physical environments are one of several parties operating in the complex set of interactions out of which knowledge and ways of thinking get constructed.”<sup>15</sup> In the next section I will look at some of the work that has been done to describe the cognitive role of physical environments, interactivity and constraints. I will argue that a more appropriate conception of wilderness can be achieved through thinking about differences in physical environments and the way that an individual experiences them.

#### Interactivity and the Construction of Concepts

The cultural construction model of knowledge formation often marginalizes two important elements: the fact that we learn about the world through interacting with it and that physical environments vary greatly in structure and texture. Interactivity has emerged as an alternate way of looking at how humans gain knowledge about the world. In order to describe what I mean by the concept of interactivity I will discuss an article by N. Katherine Hayles titled “Searching for Common Ground.” This article was featured in *Reinventing Nature? Responses to*

*Postmodern Deconstruction* a book replying to Cronon's *Uncommon Ground*. Hayles is trying to find a way to reconcile theories of radical cultural constructionism with science and environmentalism. In this piece Hayles emphasizes the importance of interactivity and constraints in the construction of concepts. She describes this position as "constrained constructionism." She reasons that thinking about knowledge construction and the physical world in this way helps to provide an alternative to both objectivism and cultural constructionism.

She begins by describing the problems with objectivist beliefs of the modern era. In the modern era, as briefly described in the second chapter, it was thought that knowledge could be gained through correctly reasoning about the world. Through reasoning and scientific analysis humans could gain access to the true nature of reality. This was reality seen from a "God's-Eye-View." One of the basic premises of this view was that the mind was separate from the physical world. This conception is an old one in Western thought. It is perhaps most clearly articulated in the work of Rene Descartes. Descartes reasoned that ontologically two main things exist: the mind and the physical world. The mind, by virtue of being separate, was able to reason about the physical world and understand the way it worked. This allowed a person to take an objective, value-free look at the machinery of nature. This can be thought of as knowing the world because we are separate.<sup>16</sup>

In contrast to this view Hayles suggests that "we know the world because we are a part of it."<sup>17</sup> That is, knowing is actually intricately tied with being in the world and interacting with it. Interactivity is simply the acknowledgement that we learn about, and develop concepts from, interacting with the world in both social and physical ways. This position is strongly rooted in philosophies of embodiment. In recent times there has been increased attention paid to the role of embodiment in the way humans think, imagine and know. The body is not just an object



among other objects nor is it simply the passive machine that supports the mind. Rather, the body is our access to the world and the facticity of our body (using the terminology of Sartre) shapes the way we construct knowledge of the world. Moving about through bi-pedal locomotion, having binocular vision and possessing two arms and legs are examples of facticity. These facts about our physical being shape the way we know and understand the world.

Interactivity is different from cultural constructivism. Cultural constructivists believe that “reality is the product of social interactions and dynamics.”<sup>18</sup> This view really only includes social factors (discourse, history, literature, and other cultural elements) in theories about knowledge construction. The reality that humans experience is thought to be primarily shaped by these dynamics. Interactivity maintains that we learn and construct knowledge about the world through interacting with it. Although this includes social interactions it is also extended to non-social activities. Activities such as walking around a city block, farming land, and exploring wilderness are ways we interact with environments. Interacting with physical environments contributes to the shape of our concepts referring to these places.

Hayles also emphasizes the importance of positionality in knowledge construction. Positionality refers to “our location as humans living in certain times, cultures, and historical traditions.”<sup>19</sup> This is a nod to the influence culture has on the way one understands the world and constructs knowledge. This position is also a response to objectivism that sees the subject as simply a disconnected observer. Positionality argues that our cultural, social and historic positions help to shape the way we think about the world.

Hayles describes the way that positionality, interactivity, embodiment and physical environments come together to form a world. She calls this the “cusp.” Hayles depicts what is “out there” as an unmediated flux that takes shape only when it “interacts with and comes into

consciousness through self-organizing, transformative processes that include sensory, contextual, and cognitive components.”<sup>20</sup> Hayles thinks that “riding the cusp” and keeping in the “foreground of consciousness both the active transformations through which we experience the world and the flux that interacts with and helps to shape those transformations” is the best way to understand and think about knowledge construction.<sup>21</sup> Basically, any theory about the nature of knowledge claims should include the shape of physical environments, and the embodiment of the observer, in addition to cultural factors. Each of these is central to understanding knowledge construction.

This view helps to get around the problems associated with objectivism and cultural constructionism. It acknowledges the problems with the view that knowledge is formed by the correct reasoning of a disconnected observer. Instead, knowledge is formed by being in, and interacting with, the world. Knowledge is not created by being separate from the world and transcending it through thought. Hayles also suggests that this way of thinking about knowledge may lead to a better relationship between humans and their natural environments. The belief in a separate physical world led to the belief that humans could change and manipulate the physical world without harming themselves. That is, we could poison our water, and destroy ecosystems, without harming ourselves. However, if we view scientific knowledge through interactivity then we would understand that if we poison the earth we poison ourselves because we are intricately connected with the world we pollute.<sup>22</sup>

Interactivity also provides an alternative to cultural constructionism. Cultural constructionism, while diverging from the modernist view by claiming that all knowledge statements are value-laden and influenced by culture, gender, and social standing, ignores the impact that interaction with physical environments can have on the way humans understand the

world. The ways in which an individual interacts with the physical environment is a key factor in the construction of concepts. In Muir's case his experience in nature shaped the way he thought about it. He discovered a world different from the culturally constructed concept of wilderness inherited from his father. The wilderness that Muir discovered was not a place to overcome and make profitable, but a place full of immense beauty and intrinsic worth. These conceptions were created through Muir's experiences interacting with natural environments, rather than a product of his cultural heritage.

The above discussion is mainly epistemological. That is, Hayles is discussing the way that knowledge gets constructed. She thinks that there are a number of elements that influence the shape of our concepts. Two of these were interactivity and culture. Although her overall focus is epistemological, toward the end of her piece she seems to shift toward a more ontological focus. This occurs in her discussion of "constrained constructionism". Hayles' discussion of constrained constructionism takes an ontological turn because she shifts from talking about concept construction to talking about properties of the physical world, and how these properties limit and shape our conceptions. She is still discussing epistemology, but also taking into account some ontological issues about the structure of the world.

Hayles thinks that we should not forget that the physical world seems to have certain properties that exist beyond cultural constructions. These properties limit the extent to which culture constructs conceptions. Hayles calls these "constraints." Constraints "delineate ranges of possibility within which representations are viable."<sup>23</sup> Hayles uses two examples. First, the concept of gravity is constrained by realities of how objects act. Although Newton's, Einstein's, and any other conception of gravity are to a certain extent cultural constructions, the construction is constrained by the fact that objects fall at a uniform rate. That is, there could not be a viable

representation of gravity that predicted that an object will accelerate upward instead. This is also true for silicon technology. Although “semiconductor” and “electron” are cultural concepts there is a certain limit to the speed in which an electron moves through a semi-conductor. This limit will “manifest itself in whatever representation is used.”<sup>24</sup> So, although many of our concepts may be products of culture they are still constrained by certain limits. This is constrained constructionism.

Hayles presents a way of looking at the construction of concepts that does two important things. First, she argues that sociological and cultural factors are not the only elements involved in the construction of concepts. Interactivity and physical environments also play a role in the way that humans view the world. Second, her concept of “constraints” limits the range that constructions can be applied to the world. Conceptions that ignore constraints would be less viable than those that conform to constraints. All conceptions are not equal. Some are more viable than others. Later in this chapter I will discuss the way these ideas can be applied to the wilderness conception.

#### Physical Environments and the Construction of Concepts

Lately a number of authors have dealt explicitly with the role of physical environments in the construction of concepts. These ideas, with an emphasis on cognition and epistemology, have recently been discussed by Christopher Preston in the book *Grounding Knowledge: Environmental Philosophy, Epistemology and Place*. Preston argues that physical environments, differing greatly in texture and structure, can affect the way people think and construct concepts. That is, interacting with a natural environment, such as Dry Bay in Alaska, will yield dissimilar ways of thinking than interacting with a neighborhood in Manhattan. Preston’s central aims are

to *ground* knowledge in physical environments while providing an argument for the preservation of natural areas.

This work is useful because, like Hayles, Preston is presenting a critique of the typical way that both modernists and postmodernists have viewed knowledge construction. Modernists, as described above, are guilty of conceiving of knowledge in a disconnected way. Humans are thought to gain knowledge by virtue of being separate from the world. Preston disagrees and thinks that we know about the world because we are intricately part of it. Postmodernists, for the most part, are guilty of being anthropocentric when it comes to epistemology. That is, they tend to “consider only human-centered social factors for explaining the shape of our knowledge claims.” Instead, Preston stresses the importance of a non-anthropocentric epistemology and “insists that the physical realities of the environments in which beliefs are formed are relevant to the ways people know.”<sup>25</sup> Preston is acknowledging that physical environments, in addition to cultural factors, shape our concepts. Physical environments are more than just passive places in which cultural meaning is projected.

The book begins with a discussion of the history of, and the problems associated with, disconnected universal knowledge. Preston then describes two attempts to overcome these problems undertaken by Kant and then later by Quine. Both thinkers, Preston argues, endorse naturalizing epistemologies. Naturalizing epistemologies are theories of knowledge that have insisted upon a distinctive context from which individuals and communities construct their claims. Instead of knowledge being objective and observer-independent all knowledge claims are actually produced within a certain context. This context can be our bodies, culture or physical environments. Preston considers his work to be traveling down the same road. Although in the past most of the work done has been in fields like cognitive science and cultural theory, Preston

wants to present physical environments as being an important context that shape the way we think. He makes his argument by pulling from a wide range of disciplines. He pulls from contemporary work in epistemology, philosophy of science, cultural theory, and anthropological studies. Preston concludes by taking a normative approach. He argues that an ethics of preservation of physical environments follows from his discussion of the importance of place. He argues that preserving physical environments helps to maintain a diversity of ideas and ways of thinking.

I should point out, though, that Preston is discussing epistemology, while this chapter, as well as the first two, is about epistemology as well as the ontological status of wilderness. However, I think that Preston's ideas can help with this discussion. Ontology and epistemology are in many ways interconnected. How we know the world and the structure of the world we strive to display are related to each other. While Preston is discussing knowledge claims his observations seem to propose that some places are ontologically distinct environments.

Preston's argument suggests that different places offer unique physical environments that yield vastly different experiences. These experiences shape the way we think and the way we construct knowledge. This seems to mean that the shape of our concepts referring to places is directly related to the shape of the physical environment to which these concepts refer. This is what I believe Preston means when he writes "if the structures of the physical environment do indeed supply some limiting factors for our categorizations, then environments should not be treated as valueless generic spaces...environments should be regarded as having significantly different characters that make important contributions to how we know."<sup>26</sup> The importance of place that Preston is arguing can be very useful when thinking about wilderness. If physical places contribute to cognition and the construction of concepts then this shows that the

wilderness conception, since it refers to a place, must be in part informed by the physical environments of “wilderness” areas. This means that when an individual experiences wilderness by interacting with it, attributes of the area help shape the concepts that an individual has of this place. More than just a cultural construction, the physical texture of places traditionally considered wilderness seems to be important to how we think of them.

One last note about physical environments before I move on. Preston is also careful to avoid endorsing a certain form of environmental determinism. The idea of environmental determinism was widespread at the turn of the twentieth century and is closely associated with racist beliefs. The basic view was that people were determined to possess certain mental abilities and characteristics by virtue of the type of environment that they, as a people, grew up in. Preston thinks that it is not a good idea to couple cognition this closely with environments. The influence of environments must always be understood as operating along with historical and cultural factors. That is, “there are any number of layers of cultural factors that are also at work deflecting that determinism.”<sup>27</sup> The concept of wilderness must be understood in the same way. Although I believe the wilderness concept is influenced by physical places, the result will not be a pre-determined universal wilderness concept.

#### Interactivity, Physical Environments, Constrained Constructivism and Wilderness

Interactivity, constraints and the influence of physical environments can be extremely useful when thinking about wilderness. In this section I will show how these can be used to present an alternative to the traditional Euro-American wilderness conception and a culturally constructed wilderness conception. This discussion will first deal with epistemological issues regarding the construction of the wilderness concept. Wilderness is not wholly discovered by reading about these places and inheriting past conceptions. Rather, the wilderness concept is

constructed by interacting with particular areas. Although it is true that cultural beliefs will always permeate certain conceptions, parts of these conceptions arise from interaction. The experiences of the physical structure of wilderness areas are just as important as the cultural preconceptions that people bring to these areas. Conceptions that we have of cities, farms, landfills, parks and wildernesses are in part derived from the physical structure of these places. This allows for the wilderness concept to refer to particular places that are discovered through interacting with them. After the discussion of the formation of the wilderness concept I will shift to an ontological focus. In this last section I will discuss whether or not there seems to be an essential characteristic of wilderness that is related to its physical structure.

John Muir, Robert Marshall and Aldo Leopold all discovered wilderness through their experience interacting with natural places. In fact, many times these experiences overturned previous conceptions. As mentioned earlier, John Muir was raised to destroy natural environments in order to expand the family farm. These actions were seen as both good and appropriate according to the beliefs of Muir's Calvinist father. However, by exploring the woodland around his farm and interacting with these natural environments Muir developed a very different conception of wilderness. These attitudes, unlike the religious beliefs of his father, are rooted in the experience of exploring these areas.

Interactivity and the structure of physical environments seem to contribute to the shape of wilderness concepts in two central ways. First, an individual's experience of wilderness shapes the way that they think about it and understand it as a place. Second, the experience of wilderness writers (Muir, Leopold, Marshall, Thoreau, Emerson, etc.) has also been shaped by interactivity and physical structure. In turn, since these writers wrote about these experiences,



and these works contributed to the cultural idea of wilderness, then physical environments also shaped the way that wilderness has been culturally constructed.

The wilderness concept, for people that have spent time in these areas, is in part informed by these experiences. Although these experiences are individual they seem to be similar to the experiences of others. The experience of hiking through a meadow in the early morning and smelling the sweet fragrance of flowers, feeling the cool rock on a precipice, and the visual sensation of looking over a tree-filled valley seem to have similar effects on people. Even Cronon acknowledges this point. As mentioned earlier, Cronon claims that “each of us that have spent time there [wilderness] can conjure images and sensations...such memories may be uniquely our own, but they are also familiar enough to be instantly recognized by others.” Some of these experiences include “looking out across a desert canyon in the evening air, the only sound a lone raven calling in the distance” or “the moment beside the trail as you sit on a sandstone ledge...while you take in the rich smell of the pines, and the small red fox – or maybe for you it was a raccoon or a coyote or a deer – that suddenly ambles across your path.”<sup>28</sup> Cronon thinks that while we all have had these experiences the source (both what brought us to these places and our memories) is cultural. He reasons, “what brought each of us to the places where such memories became possible is entirely a cultural invention.”<sup>29</sup>

However, would it not make sense to also think that aspects of the physical structure of these places, and the way we move about them, contribute to our conceptions? I believe the experiences described by Cronon, and any others like them, in addition to being cultural, are also common due to the structural consistency of physical environments that remains the same among different observers.

Many of the physical features of wildernesses do not change from observer to observer. The coyote that wanders across your path will not change if there is a different person to experience it (of course this would not be true if the observer is wearing a gorilla suit and jumping around - both observers must be quiet and respectful). Similarly, canyon walls have a particular shape and texture that will not change if the person perceiving them is a Native American woman or an African-American man. There is a certain structural consistency to the physical world that is not altered by culture or language or history. Rather, the physical attributes of particular places, whether it is the rock wall of a canyon, the behavior patterns of a coyote, or the skyscraper-lined streets of midtown Manhattan, remain the same from observer to observer. The wilderness conception is constructed by these constant features. In this way an individual's experience of the physical environment of a wilderness area will shape his or her wilderness concept. These wilderness conceptions will have a common element because they are structured, and limited, by the static quality of physical environments

However, some might object to the suggestion that these experiences will be common, and argue that different people, coming from different cultural backgrounds, will have very different experiences of the physical structure of wilderness. For example, a teenager from an urban area, a backpacker and a Native American will have very different experiences of a canyon wall, or a tree-filled valley. Each person's experience will be different depending on their cultural background. The backpacker might look at the canyon wall and think about climbing it. The teenager from the urban area may think about how the wall is different from his neighborhood. The Native American might think about a spirit or story about the canyon wall. For each person the wall carries a different meaning.

Although I agree that each person will bring with them certain cultural conceptions that will influence their experiences, I still believe that physical characteristics play a common role in the shape of conceptions. This is because there is a certain hard reality to physical environments that goes beyond cultural or societal influences. The shape and texture of the canyon wall will not be different for the teenager from the urban area than it is for the backpacker. While the backpacker may look at the wall and think about the best way to climb it, and the kid may think about how this wall is different from brick walls in his neighborhood, the object of these thoughts, the canyon wall, will remain the same. This will not change. Places where the wall is smooth, and where it is rough, areas of the wall that budge out, and various cracks and crevices will be the same among different observers. This static quality helps to shape both people's conception of the wall in similar ways. This does not mean that cultural differences do not matter. It simply means that a certain aspect of any person's conception of the wall will include this one common thread.

The second way that interactivity and physical structures contribute to our conception of wilderness is by shaping the received cultural conception developed by authors like Muir, Marshall and Leopold. The early wilderness writers seem to embrace the importance of physical environments in their interpretations of wilderness. All three at some point vividly describe the physical structure of wilderness as experienced through interaction. These portraits provide a way of looking at wilderness that gives more credit to its physical form than to abstract definitions.

For instance, in the first chapter I described the method that Muir used to depict wilderness. This method, in addition to centering on the scientific elements of wilderness, illustrates the way that wilderness appears to a person interacting with it. Muir exclaims:

We see the old stone stumps budding and blossoming and waving in the wind as magnificent trees, standing shoulder to shoulder, branches interlacing in grand varied round-headed forests; see the sunshine of morning and evening gilding their mossy trunks, and at high noon spangling on the thick glossy leaves of the magnolia, filtering through translucent canopies of linden and ash, and falling in mellow patches on the ferny floor; see the shining after the rain, breathe the exalting fragrance, and hear the winds and birds and the murmur of brooks and insects.<sup>30</sup>

In this passage Muir is not defining wilderness as a place “unmodified by humans” or “possessing natural origins.” Rather, he is describing the way that wilderness’s physical characteristics are experienced when he *interacts* with them. He is describing the physical elements and texture of Yellowstone. These different textures and qualities shaped Muir’s conception of wilderness and thus shaped the conception of those reading his many texts.

Marshall also describes the experiences of interacting with wilderness areas. This is most apparent when Marshall discusses the aesthetic beauty of wilderness contrasted to human works. He describes several different areas where wilderness is unique in the kind of aesthetic experience it offers. These experiences are very much the result of interacting with the physical environments of these areas. For example, Marshall describes the way wilderness is perceived by his senses:

No one who has ever strolled in springtime through seas of blooming violets, or lain at night on boughs of fresh balsam, or walked across dank holms in early morning can omit odor from the joys of the primordial environment. No one who has felt the stiff wind of mountaintops or the softness of untrodden sphagnum will forget the exhilaration experienced through touch.<sup>31</sup>

In this passage Marshall emphasizes the importance of these wilderness qualities. The concept of wilderness refers to the smell and feel of particular places. The wilderness conception is derived from the unique texture of these distinct physical environments.

Marshall also describes the way wilderness is experienced through sight. In this section Marshall is describing the “intangibility” of wilderness. He states:

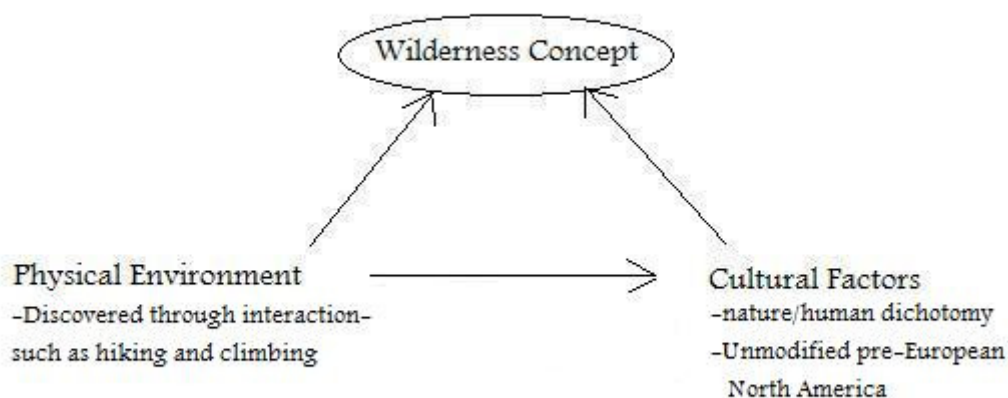
Any one who has stood upon a lofty summit and gazed over an inchoate tangle of deep canyons and cragged mountains, of sunlit lakelets and black expanses of forest, has become aware of the giddy sensation that there are no distances, no measures.<sup>32</sup>

These experiences, although hard to define in any concrete form, contribute to the way that the concept of wilderness has been constructed.

The wilderness experiences described above by both Muir and Marshall point toward a unique wilderness environment. These descriptions differ considerably from a depiction of a city or a farm. A city is filled with angular walls, windows, doors, smoke, dust, pollution, lights, and streets. There is a flurry of automobiles and people traveling through its streets and alleyways. On a farm there are symmetrical rows of corn, wheat or hay crisscrossed with small roads and spotted with various buildings and other human structures. Animals are grouped together into designated areas and kept in place with barbed wire, electric, wood or metal fences. In contrast to cities and farms Muir describes a very different place. He depicts the way the sun filters through “translucent canopies of linden and ash” and the “murmur of brooks and insects.” Marshall describes the “inchoate tangle of canyons” and “softness of untrodden sphagnum.” The physical structure of wilderness, as experienced through interactivity, is very different from cities and farms.

Given these very distinct differences between places it would be foolish to conclude that the attributes of these areas are not in some way related to the concepts that are constructed about them. It seems that interactivity and physical structures are two important ingredients in the construction of concepts. This is true for our conceptions of New York City as well as the Bob Marshall Wilderness Area in Montana. Given these considerations the wilderness conception seems to be constructed by a combination of cultural and physical factors. Something like the following diagram represents the construction of the wilderness concept. This diagram displays that the wilderness concept is constructed from both interaction with physical environments as

well as cultural factors. It also shows that cultural factors are also partially informed by physical characteristics.



So far all I have really argued is that physical environments give rise to conceptions through interaction. An important question at this time is *how* do these different physical structures of wilderness shape our conceptions? In order to answer this question it is helpful to take another look at Hayle’s conception of “constrained constructionism.”

Hayles described constraints as features of the world that “delineate ranges of possibility within which representations are viable.”<sup>33</sup> She is describing the way the physical realities of gravity limit the conceptions that we have of it. Any viable conception must be compatible with the fact that objects fall at a uniform rate. Like gravity, the structure and texture of physical environments can also act like constraints and limit the range to which the wilderness concept is constructed. Basically, as described above, the physical structure of wilderness differs considerably from other places such as cities and farms. The physical properties of each area constrain the way we come to understand these places.

In order to understand the way physical environments constrain our concepts consider the conception of New York City held by a person who has spent time there. This conception will be constrained by the physical character and dynamics of the city. These characteristics include, but are not limited to, visual elements (skyscrapers, the rush of automobiles and people, the grid of streets and alleyways) olfactory elements (trash, pollution, many varieties of food cooking) audible elements (traffic, people talking, yelling and singing, music) and tactile elements (brick walls, handrails, car seats, chairs, sidewalks). These elements come together to help form conceptions of New York City. However, cultural factors are also at play. It is true that any conception of New York, in addition to physical characteristics, will also be accompanied with culturally constructed images of dangerous people (mafia, muggers, and criminals), images of adventure or fame. A person, however, will not conceive of New York City as a place with canyon walls teeming with life, winding fish-filled rivers, open expanses of desert, or supporting families of wolves, bears or elk. Conceptions of New York City are *constrained* by its physical characteristics.

Like New York, conceptions of wilderness areas, such as the Bob Marshall or Mission Mountain Wildernesses, will be constrained by their physical characteristics. The unique visual, tactile, auditory and olfactory textures and qualities of these areas constrain the range of concepts that we will have regarding them. These physical characteristics are the movements and dynamics of packs and herds of animals, vast expanses of forest and meadows, the smell of wildflowers, rocky cliffs, unrestrained rivers and waterfalls, snowcapped mountains and open plains. These physical characteristics constrain our conceptions of wilderness. The physical structure of the Bob Marshall Wilderness Complex limits our conceptions and does not allow us to think of the Bob Marshall as an unchanging place. We are constrained to think of wilderness

as dynamic by virtue of its physical structure. This is apparent in the fallen trees, winding rivers and eroding rock walls.

These physical characteristics ensure that a person will not conceive of the Bob Marshall Wilderness Area, no matter what their cultural background, as a place with skyscrapers, with millions of people moving about through many different forms of transportation, with a grid of streets, or with shops and restaurants. In short, the conception of a city and the conception of wilderness will never be the same, or carry the same meaning, because these conceptions are constrained by the structure of each respective physical environment. We consider both places as belonging to different categories because of these characteristics. This is true for dramatic environments like Bob Marshall Wilderness and New York City, but also for farms, parks and other more subtle wildernesses.

This idea has been acknowledged by Mark Johnson in his book *The Body in the Mind*. In this work Johnson is arguing for the importance of embodiment and imagination in the construction of conceptual schemata. Toward the end of the book, in a section titled “All This, and Realism, Too!,” Johnson defends his theory against claims that the way he construes knowledge falls into the category of subjectivism and relativism. Instead, Johnson wants to maintain a certain level of realism in his theories. He asserts that the physical structure of environments helps to categorize concepts. For example, the physical characteristics of wildernesses and cities separate these environments into different categories of places. We think of them as categorically different because of their physical environments. He states, “we do not impose arbitrary concepts and structure upon an undifferentiated, indefinitely malleable reality...the environment is structured in ways that limit the possibilities for our categorizations



of it.”<sup>34</sup> The physical properties found in wildernesses and cities shape and limit our conceptions of these places, and separate both into different categories.

The idea of constrained constructionism seems to help alleviate the problems of relativism associated with cultural constructionism. The problem of relativism is that all concepts end up being both true and false depending on what culture is conceiving of a particular place. However, if conceptions are constrained by the physical elements of particular places then there is a limit to what can count as an accurate conception of wilderness. This is similar to the way that certain facts about how objects fall limit the range of concepts that we can have about gravity. Any concept, in order to be viable, must conform to the reality that objects will fall at a constant rate every time. Concepts referring to wilderness are constrained by the physical characteristics of wilderness areas. If a conception of wilderness completely ignores certain physical attributes then this is not an accurate wilderness conception.

However, it should be quite obvious that a wilderness area and NYC are drastically different physical environments that will produce different conceptions when interacted with. The example of New York City is really only supposed to work as an instance where the physical features of a place shape the way we think about it. I don't think that anyone would ever interact with a wilderness area and end up with conceptions of skyscrapers, traffic-filled streets and millions of people. The point of this example was to show that places have physical characteristics that not only shape our concepts, but also define that place. This is true for both wildernesses and New York City.

At this point I would like to go a little more in depth and discuss specific features of the wilderness concept and how interaction and physical environments help to construct these features. I will utilize Marshall and his insightful ideas on wilderness aesthetics to discuss the

way these physical characteristics constrain or limit our conceptions. I will then discuss some other common wilderness characteristics and how these attributes can be accredited to the influence of culture as well as interactivity and physical environments. Finally, I will consider whether there are any essential characteristics of wilderness that define it as an ontologically distinct place.

Marshall points out seven main wilderness qualities that are unique from an aesthetic view-point. However, only two features seem to apply directly to this discussion of wilderness. These wilderness characteristics are immensity and wilderness's dynamic nature.

The wilderness characteristic of immensity is central to the traditional wilderness conception. This quality can be found in the writing of both Marshall and Leopold as well as in the Wilderness Act. In his wilderness aesthetics Marshall describes the immense quality of wilderness through an analogy to chemistry. In this analogy Marshall seems to emphasize the importance of interactivity in the construction of this concept. He states, "immensity...makes the location of some dim elevation outlined against the sunset as incommensurable to the figures of the topographer as life itself is to the quantitative table of elements which the analytic chemist proclaims to constitute vitality."<sup>35</sup> This statement makes a distinction between the influence of culture and interaction with physical environments in the construction of the wilderness conception. Marshall thinks that cultural conceptions of mountains represented by a topographer in the form of a map overlook the actual character and texture of wilderness. Wilderness cannot be understood from reading a map or a book but rather needs to be experienced first-hand. This is similar to the way explaining life in terms of chemical reactions does not do justice to the experience of being alive.

Immensity is an aspect of the wilderness conception that should be attributed to interacting with the physical characteristics of these areas. The immense quality is constructed by moving about a place and actually experiencing the great distances between two points. Anyone who has traveled through a wilderness area comes to understand this wilderness characteristic. The height of a mountain only becomes real when a person attempts to climb it. Similarly, the vastness of a great desert or grassland becomes understood when a person crosses it and experiences this quality. Although a book or map may try to describe through words and symbols the immense quality of wilderness these attempts will always fall short of capturing the true form of these places. Immensity is an aspect of the wilderness concept that seems constructed by interaction with physical environments rather than produced by culture.

Second, Marshall discusses the dynamic nature of wilderness. Marshall is referring to the constant changes that are occurring in wilderness. For example, forests are always in the process of birth, growth, death. Marshall gives a brief description of this process. He states,

A seed germinates, and a stunted seedling battles for decades against the dense shade of the virgin forest. Then some ancient tree blows down and the long suppressed plant suddenly enters into the full vigor of delayed youth, grows rapidly from sapling to maturity...and eventually topples over to admit the sunlight which ripens another woodland generation.<sup>36</sup>

Although an individual interacting with the physical environment of a forest will never see this process in completion, the dynamic nature of a forest is still apparent. Any person who has visited the same area over the years will have seen this process. One year an old tree is taken down by a strong gust of wind. The following year it begins to wear away and decompose while the younger trees around the area begin to reach for the sky. Several years later the old tree is gone, decomposed into the soil, and those younger trees stand strong. This characteristic of being in a “constant flux” is apparent to an individual interacting with these natural areas over a period of time.

An individual interacting with a city or town will not experience the same physical quality. Human structures are not as dynamic and self-perpetuating. Once a structure is built it tends to sit in the same place and remain more or less constant unless changed into something else through human actions. This characteristic of being in a constant state of self-renewal is unique to wilderness and observed through interacting with wilderness areas. This characteristic is an ontological fact about these areas. And this characteristic shapes the way we think about wilderness. That is, it shapes the concept of wilderness.

The influence of physical environments and interactivity are not the only elements that contribute to the conception of wilderness. Many conceived wilderness qualities are mainly the product of culture. The wilderness characteristic of being a place to rejuvenate a lost masculinity seems to be more of a cultural construction. This characteristic was discussed by Cronon. He describes this characteristic as, “in the Wilderness, a man could be a real man, the rugged individual he was meant to be before civilization sapped his energy and threatened his masculinity.”<sup>37</sup> This aspect of the wilderness conception is mostly a cultural construction. It assumes that men, if civilization did not ruin them, would have a certain universal masculinity. This is not an objective truth about wilderness. In recent years many socio-cultural theorists have argued convincingly that many cultural conceptions, such as gender, masculinity, and race, are merely the product of a certain society’s values and latent beliefs.

Other aspects of the wilderness conception have been constructed by a combination of interacting with physical environments and culture. This seems to be true for the characteristic of wilderness being a place uninhabited by humans. The role of physical environments and interactivity seem important to this wilderness attribute. To understand how these elements influenced the wilderness concept imagine the activity of exploring the lands in America

traditionally thought to be wilderness. Although the land was inhabited, it was not populated in the same way that Europe was, and certainly not the same way a city was. These lands were not interlaced with roads, permanent human settlements or large-scale agricultural developments. There were large tracts where humans, and obvious signs of human presence, were absent. These physical environments partially produced this aspect of the wilderness conception. From the perspective of an individual traveling across these lands, it is easy to understand how these places were in a sense “uninhabited.” They were not uninhabited in the way that Mars is uninhabited. That is, it was not a land completely vacant of people living and making a living from the land. But it was uninhabited in the sense that it was not populated like Europe. The physical environments of the cities and countryside of Europe were dramatically different from the physical environment found in North America. Through interactivity the physical environment of North America shaped the conception of wilderness and defined it as an uninhabited place. In other words, there are multiple meanings of inhabited and uninhabited and can be thought of as constituting a continuum.

However, certain cultural beliefs about North America, the indigenous people of this land, and the biblical conception of wilderness also contributed to the conception of wilderness as being uninhabited. For example, many people of European heritage viewed Native Americans as being savage, uncivilized, and lacking the qualities that would grant them full human status. Instead, Native people were thought to be a sub-human type of animal. These beliefs helped to create the conception that wilderness is uninhabited. This is because the people that inhabited these lands were not considered human beings in the same way Europeans were. This belief was both wrong and culturally constructed. We see then that the wilderness conception has been constructed by a combination of culture and interaction with physical environments.

Before I move on I would like to again acknowledge a possible objection to the way I have been describing the formation of the wilderness concept. This is in regard to the idea that the structural elements of a wilderness environment will shape the wilderness conception in a way that is not culturally specific. Many would argue that any individual experience of the physical world will bring with it cultural influences and prejudices. That is, there is no way to have a value-free, ahistorical, experience of the physical environment of wilderness. I want to make it clear that this is not what I am saying. I agree that cultural influences are pervasive and will always be a part of each of us and shape the way we see the world. However, I also think that, in regard to conceptions of places, physical environments will also always be one of the factors that contributed to the construction of that concept. Just as we cannot escape the influence of culture, we also cannot escape the influence of physical environments. These two contributors to the wilderness conception, to quote Preston, are two “of several parties operating in the complex set of interactions out of which knowledge and ways of thinking get constructed.”<sup>38</sup>

I think the best way to think about the influences of culture and physical environments is to imagine the two pressures on either side of a see-saw. Sometimes the culture side will be up and the physical environments side will be down. In this instant, culture will play a more prominent role in how we see the world. This might be the situation with a conception of a school. In this case a person will remember the different cultural and social interactions that took place there. Their conception of the school will be highly influenced by culture, while the physical structure of the school will not play a major role in that conception. In other conceptions of places the influence of physical environments will be more prominent, while the cultural element will be diminished. I believe that this is sometimes the case for natural

environments. However, cultural elements are still present, although not as influential, and will contribute to how we see the world.

Above I have been describing the way that interaction with physical environments influences aspects of the wilderness concept. This discussion has been primarily epistemological. At this juncture I would like to shift into an ontological discussion of wilderness. The epistemological concerns I discuss above are in many ways related to the ontological status of wilderness. When we think about physical environments shaping the way we conceive of particular places this, I think, suggests a certain ontological status of that place. That is, there seems to be certain quality, unique to a wilderness's physical environment, which yields certain conceptions like the ones discussed above. This idea was suggested by Preston when he writes that "if the structures of the physical environment do indeed supply some limiting factors for our categorizations, then environments should not be treated as valueless generic spaces...environments should be regarded as having significantly different characters."<sup>39</sup>

The question I would like to look at is whether there is an essential characteristic, or characteristics, of wilderness that define it as an ontologically distinct place? What I mean by the term "essential characteristic" is a property that defines something and makes it what it is. That is, what physical qualities make wilderness a unique environment unlike others? What separates wildernesses from farms and parks? In the first chapter I discussed three central traditional wilderness characteristics. These characteristics defined wilderness as a place ontologically separate from humans. For an area to be wilderness it must be primarily shaped by natural forces, possess natural origins and lack human inhabitants and structures. In the second chapter I acknowledged several critiques of these characteristics. These criticisms centered on the historic human presence and manipulation in wilderness areas. These critiques questioned

whether it is viable to consider wilderness primarily shaped by natural forces, possessing natural origins or lacking human presence when these areas have been inhabited and manipulated through prescribed burning for centuries. So, are the three traditional wilderness characteristics from the first chapter functional when looking for essential characteristics of wilderness from the perspective of interactivity and physical structure? I will look into these issues shortly.

First, I would like to come back to the wilderness characteristics of immensity and its dynamic nature. The wilderness characteristic of immensity discussed above certainly describes a quality of wilderness discovered through interaction, but falls short of being something like an essential characteristic. This is because, while this feature is a part of wilderness, it can also apply to many other places. For example, a large sprawling urban center will also have the quality of immensity, and this quality will also be primarily grasped through interaction. This is apparent for anyone who has walked from the north end of Manhattan to the south end, or gazed from the top of the Empire State Building at the city below that seems to extend forever in all directions. This place also possesses the quality of immensity.

The quality of being dynamic is more unique to wilderness areas than immensity and might help point us in the right direction. As I described above the dynamic nature of wilderness is not something that will be experienced in a city or town. Human structures are not as dynamic and self-perpetuating. In this way the dynamic nature of wilderness makes these areas ontologically unique. However, it is not just wilderness's dynamic nature that defines it as a specific place, but the source of this dynamic quality: its non-humanness.

In Marshall's section on wilderness aesthetics he brings up another wilderness quality that I have not yet mentioned. Marshall points out that "only natural phenomena like the wilderness are detached from all temporal relationship. All the beauties in the creation of



alteration of which man has played even the slightest role are firmly anchored in the historic stream.”<sup>40</sup> The human world is different from the natural because the human world attempts to be permanent and long-lasting. The natural world is dynamic and self-perpetuating. It is always in a process of change and self-renewal. It is this non-humanness of the physical environment of wilderness that is its essential quality. This is what separates wilderness from cities, farms and parks, and gives it its dynamic nature. Moreover, like immensity and wilderness’s dynamic nature, the non-human quality is also experienced through interactivity.

Thinking about wilderness as possessing the essential quality of a non-human physical environment is different from considering wilderness to be a place “where man is a visitor who does not remain.” A non-human environment does not necessarily exclude human inhabitants, and might allow for human activities such as prescribed burning practices. This is because it is the overarching structure, processes and ecological relationships that make an area wilderness. Whether or not some humans are present, and interact with the area, is not that important. This, of course, depends on the type of activities that humans perform in these areas. Many activities conducted by contemporary humans would be prohibited.

I think this idea can be clarified with an analogy to an orchestra. The orchestra itself is similar to a wilderness area. An orchestra is made up of various instruments, and each one possesses a distinctive, individual, sound. The instruments are like the various processes, geological structures, and organisms that make up a wilderness area. Each instrument can be thought of as representing a particular aspect of wilderness. The percussion section might be thought of as the basic geological structure of a wilderness area, and the cello might be considered the trees and so on. Moreover, like organisms and processes, each instrument has particular relationships to other instruments. The composition can be thought of as the

overarching state of a wilderness area at a particular time. The key of the composition can be thought of as representing the climate of a wilderness area (sub-alpine, swamp, desert). The analogy could go on and on.

Imagine the trumpet as representing the role of fire in a wilderness ecosystem. Like all the other instruments, the trumpet plays an important role in the song as well as in the orchestra. The trumpet adds a significant element to the sound of the orchestra just like fire plays an important role in an ecosystem. However, the general texture and sound of the trumpet will not change much if the current player is switched with another, as long as each player is competent, follows the sheet music, and matches the emotion and tempo of the rest of the orchestra. Now imagine the player of the trumpet as being sometimes lightning and other times humans. It seems that this would not disrupt the overall structure of the orchestra. The trumpet would still play the same role in the sound of the orchestra. If we think of wilderness, fire and humans in a similar fashion we see that we can preserve the basic “non-human” quality of the physical structure of the area while still having anthropogenic prescribed burning. This is because the player of the trumpet does not drastically change the shape and sound of the instrument, or the overarching song that is coming into being through the combination of all the parts of the orchestra. Similarly, if a fire is started by a Native American, rather than lightning, the fire will still play the same role in the wilderness ecosystem. The non-humanness is not degraded.

However, other human activities do not seem to be acceptable. Activities such as road-building, mining or farming bring into the symphony of wilderness many foreign elements. This would be like adding the sound of breaking glass or a crying baby into an orchestra. Having these types of human activities and human structures would introduce very human elements into an overarching non-human environment. This difference is why activities such as these would

have to be prohibited, and have been prohibited, even though above I showed why prescribed burning would be acceptable. Burning utilizes an already present natural process that has particular predictable outcomes. This element is an intricate part of the wilderness orchestra. For this reason some other hard cases of appropriate wilderness activity would also be prohibited. It seems like this would be the case for spraying weeds. Spraying herbicide on weeds, like building roads, brings human elements into the arrangement of organisms and processes that make up a wilderness area. Unlike burning, spraying for weeds is not an established natural process, and would change the sound of the wilderness orchestra.

At this point I would like to come back to the three traditional wilderness characteristics from the first chapter and see if any are still viable wilderness qualities. If we consider wilderness's non-humanness as its essential characteristic, and think about some human activities such as prescribed burning in light of the above analogy, then it seems that most of these characteristics still largely define wilderness. First, the quality of being primarily shaped by natural forces seems to be compatible with wilderness defined as a non-human environment. In the first chapter I described this characteristic as the quality of being shaped by geological, biological and ecological processes. Such processes and systems operate in accordance to natural laws and combine to create a wilderness environment. I contrasted this environment to an area, such as a farm, that has been principally shaped by humans.

Critics of this characteristic argue that since many areas considered to be wildernesses have been prescriptively burned by native people then these areas cannot be considered to be primarily shaped by natural forces. However, in light of the analogy above, the existence of historical anthropogenic burning practices seems to be compatible with defining wilderness as an area shaped by natural forces. This is because the role of fire in a wilderness environment is

basically non-human, and operates according to laws that were not enacted or changed by humans. The changes brought to an area though these types of burning practices are still natural when thought of in this way. The instrument, or natural process, does not change - only the player does. A wilderness area, therefore, can still be defined as primarily shaped by natural forces.

The characteristic of possessing natural origins is also viable for the same reason. This characteristic defined wilderness as a place that *emerged* by virtue of natural forces. That is, an area's past history defines it as a particular place. This characteristic is also still viable when wilderness is defined as a non-human environment. Like being shaped by natural forces, the presence of humans or prescribed burning does not mean that an area can no longer be thought to have emerged by virtue of natural processes. The role of fire in the overarching ecosystem is still a natural process even if the fire has a human source. An area can still be defined as having natural origins.

The last wilderness characteristic is that it must be free of human inhabitants and human structures. Unlike the other two characteristics above, this wilderness characteristic is only partially acceptable as a definition of wilderness. This characteristic first requires an area be completely free of permanent human inhabitants. This is what the Wilderness Act means when it defines wilderness as a place "where man is a visitor who does not remain." The second part of this characteristic defines wilderness as a place free of human structures. This refers to such things as roads, lodges, farms, and other human artifacts.

The exclusion of human structures seems to be clearly compatible with defining wilderness as a non-human environment. The type of human structures listed above would damage the non-human quality of a wilderness area. Any of these artifacts would substantially

change the sound of the wilderness orchestra by adding completely human elements into the area.

Defining wilderness as a non-human environment does not require the absolute exclusion of human inhabitants. If an actual area is in fact lacking any kind of human inhabitants this area is clearly a non-human environment, and thus wilderness. However, an area can also have humans living there without necessarily losing its non-human quality. If the human inhabitants of an area do not change the structure and sound of the wilderness orchestra then the physical structure of an area still remains a non-human environment. Therefore, the only traditional wilderness characteristic that no longer defines wilderness is the total exclusion of humans. The others, being shaped by natural forces, possessing natural origins and lacking human structures, are all compatible with defining wilderness as an environment with a non-human structure or quality.

Given these considerations I think that we can distinguish between a wilderness area, a natural area and a human environment. A wilderness area is a place that possesses a non-human environment. That is, the structure of the area (the processes and physical elements) is non-human in the way it is not mandated or created by humans. A natural area, although possessing many natural processes, may still have human elements in its physical structure. These elements may be sustainable, low-impact farming, a small cabin or high recreational use. Although these areas may maintain many natural processes, the human elements listed above preclude it from having a non-human physical structure. In contrast to both a natural area and a wilderness area, a human environment is one in which the basic structural elements of this place were created or arranged by humans. For example, major urban centers are certainly human environments. The

structure of these environments, such as buildings and streets, were created by humans and cannot be considered to be non-human.

### Conclusion

We see then that the wilderness concept, like so many of our concepts referring to places, has been constructed by a combination of the influence of physical environments and culture. Both elements play an important role in how we come to understand the world. The importance of physical environments seems to provide a more stable grounding of the wilderness concept. Physical environments introduce a certain static element into the conception. This element will be somewhat consistent among people of different social backgrounds or cultural histories. Unlike the cultural sources of this concept, the influence of physical environments reflects attributes of these areas directly.

One of the attributes of the wilderness environment is its non-humanness. This seems to be an essential characteristic of wilderness that defines it as an ontologically distinct place. That is, it is wilderness's non-human quality that separates it from a city, farm or park. However, I also showed that considering wilderness as a non-human environment does not necessarily exclude humans or prescribed burning practices. Because of this, some of the traditional wilderness characteristics discussed in the first chapter still seem viable.

## CONCLUSION: ENVIRONMENTS, CULTURE AND WILDERNESS

The great new wilderness debate continues to be a central part of contemporary environmental philosophy. More and more people have been discussing the concept of wilderness, and how this concept shapes the way we think about nature and conservation. Postmodern critiques have cast a number of doubts on some of the basic tenets of the traditional wilderness conception, namely the exclusion of humans and human modification. However, postmodern cultural constructionism tends to look past the influence of physical characteristics in the formation of concepts. In the last chapter I argued that there is a connection between the shape and texture of particular places and the concepts that refer to them. These physical structures have shaped the way we think about wilderness and point toward a unique wilderness environment. To conclude I would like to show how acknowledging the role of physical structures in the construction of the wilderness concept can help to resolve some of the conflict between the traditional Euro-American wilderness conception and postmodern cultural constructionism.

It should be clear at this point that thinking about wilderness as a unique environment that influences our concepts is divergent from thinking about wilderness as solely a cultural construction. The wilderness conception is significantly informed by the physical structures of wilderness areas. The texture and structure of a vast canyon and the smell of a rain soaked pine forest contribute to the conception of wilderness. These attributes are more or less static. Any conception of wilderness is limited, and constrained, by these physical characteristics. To borrow a term from Preston, there is a “non-anthropocentric” or non-cultural quality to our conceptions of wilderness.

When viewed in this way the concept of wilderness and the physical environment seem intricately connected. Physical characteristics, and our interaction with them, unite our concepts with these places. When culture is considered the prominent or only source of meaning we are left with a cultural world and a physical world that are more or less divided. The cultural world first creates concepts that are then applied to the physical world. The individual is first introduced to the concept of sublime landscapes and then goes out and applies this concept to places in nature. Physical environments do not play an important role in the creation of the concept. The concept is ready-made in the crux of social interaction and then applied to the physical world. But if we look at physical environments as contributing directly to the formation of concepts, particularly concepts referring to places, we see that our concepts are more closely related to physical environments. The contours and texture of physical environments influence the way we think about them.

In this regard the traditional wilderness conception is correct. Concepts of wilderness do refer to a particular wilderness environment. The concept of wilderness is not simply a cultural construction. It is in part a direct result of interacting with the physical structure of these places. Muir, Marshall and Leopold all conceived of wilderness in this way. Wilderness is an ontologically distinct environment where a person, as Muir proclaims, can “see the shining after the rain, breathe the exalting fragrance, and hear the winds and birds and the murmur of brooks and insects.” Wilderness is more than just a cultural construction; it is a tangible place that can be federally protected and preserved.

It is also important to note that acknowledging the importance of interactivity and physical environments still allows for cultural forces in shaping our concepts. Culture and language will always play a role in the way humans think about the world. These things are too



central to what it is to be human. This is important to remember when thinking about the conceptions that seem to be universal truths about the world. Many of these conceptions are actually culturally specific. Beliefs in the way families are structured, or the roles of men and women in society are largely constructions of culture. These beliefs are simply held because of convention. Similarly, certain beliefs about wilderness and nature are culturally constructed. For example, the belief that wilderness will make a man masculine, and a rigid nature-human dichotomy both seem to be culturally constructed. Realizing this allows us to better understand the way other cultures view the world, and also allows us to see problems in our world views.

The cultural dimension to our conceptions can also be positive. Emphasis is often placed on the negative aspects of the cultural construction of the wilderness concept. For example, Cronon thinks that the cultural construction of the human-nature dichotomy is negative because it forgets that humans are a part of nature. However, cultural conceptions like those described by Luther Standing Bear do not seem harmful in the same way. The cultural views of Standing Bear emphasize the importance of respecting and learning about the natural world. These ideas and beliefs are not so much formed out of experience with environments as they are transmitted culturally. These cultural values and beliefs, coupled with interacting with physical environments, yield a rich relationship between humans and the natural world.

Lastly, emphasizing physical environments does not completely exclude humans or human modification. This way of looking at wilderness simply places importance on the fact that interactivity and physical structure help to shape our conceptions of wilderness. This does not mean that any type of human presence and modification is appropriate. This conception does, however, allow for the type of indigenous modifications that are often used to argue against the traditional Euro-American wilderness conception. These changes, namely alterations

brought by prescribed burning, do not seem to modify the physical structure of environments in drastic ways. This is partially the case because burning, in many of the contexts in question, is a naturally occurring event. Although humans may use it to bring about particular ends that may be beneficial to humans, the result is not an overwhelmingly human environment like a housing development or highway. Rolston supports this view and explains that “on the scale of regional forest eco-systems, the source of ignition is not a particularly critical factor. The question is whether the forest is ready to burn.”<sup>2</sup> An area will burn whether humans light it or not. Thus, an area burned prescriptively and an area burned by virtue of lightning have a similar texture and physical structure. These areas will then constrain conceptions in a comparable way.

Other human changes, however, cannot be permitted because these changes drastically alter the physical structure of particular areas. A large city built in the middle of Bob Marshall Wilderness would significantly alter that area. Many trees would be cut, ground cover would be bulldozed, hills would be leveled, and countless ecological communities would be either destroyed completely or irreversibly altered. The type of human modification that occurred on Manhattan Island or occurs on a farm in Ohio also changes the area in drastic ways. Manhattan is in no way the same physically as it was before European discovery and settlement. The conception of Manhattan Island that we develop through interacting with it today is very different from the conception that we would have developed in the sixteenth century. Similarly, a farm is also stamped with drastic physical changes. Plants are arranged in rows and fenced in, animals are kept in separate areas and also fenced, and woodland has been cut and replaced with pasture. These physical characteristics shape our conceptions of farms and situate these places into a different category than wilderness. An area will no longer be wilderness once it is transformed in these ways.

The above examples are somewhat clear-cut cases where human modification is appropriate and where it is not. Many times, however, debates over wilderness and human involvement center on more difficult situations. These are circumstances where it is hard to decide if certain human activities, manipulations and structures ruin or preserve wilderness. Examples are spraying for noxious weeds, fire towers, and mountain bikes. Does permitting these things in a wilderness setting ruin the wilderness quality? Toward the end of the last chapter I suggested that spraying for noxious weeds should not be allowed. I argued that this would constitute bringing a fundamentally human element into an essentially non-human environment. However, these issues, as well as the ones above, require far more attention than is available at this time to do them justice. Nevertheless, keeping in mind the importance physical environments might help to point us in the right direction.

As we move further into the twenty-first century the great new wilderness debate will continue to be argued and discussed. The Wilderness Act will no doubt be both criticized and defended, and the meaning of wilderness will continue to evolve. Interest in interactivity, embodiment, and physical environments in concept formation will also continue to progress, and hopefully become increasingly influential. In this examination I modestly attempted to unite the debate over the concept of wilderness with these new movements in epistemology in hope of finding a new way to think about the wilderness conception.

## ENDNOTES

Introduction: The Great New Wilderness Debate

<sup>1</sup>Callicot and Nelson, p. 2

Chapter One: Wilderness as Separate from Humanity

<sup>1</sup>The Wilderness Act

<sup>2</sup>Wilson, p. 103

<sup>3</sup>Hoderich, p. 670-1

<sup>4</sup>Shafer-Landau, p. 78

<sup>5</sup>Brunson, p. 235

<sup>6</sup> The Wilderness Act

<sup>7</sup>Harvey, p. 203

<sup>8</sup>Cole, p. 15

<sup>9</sup>Elliot, p. 81-93

<sup>10</sup>Devlin

<sup>11</sup>Nash, p. 121-4

<sup>12</sup>Nash, p.124

<sup>13</sup>Nash, p. 124

<sup>14</sup>Nash, p. 124

<sup>15</sup>Nash, p. 121-40

<sup>16</sup>Muir, *WD*, p. 490

<sup>17</sup>Muir, *HH*, p. 43

<sup>18</sup>Muir, *WD*, p. 484

<sup>19</sup>Muir, *WD*, p. 302-309

<sup>20</sup>Muir, *WD*, p. 308

<sup>21</sup>Muir, *WD*, p. 591

<sup>22</sup>Muir, *WD*, p. 592

<sup>23</sup>Muir, *WD*, p. 593

<sup>24</sup>Muir, *WD*, p. 593

<sup>25</sup>Muir, *WD*, p. 593

<sup>26</sup>Muir, *WD*, p. 591

<sup>27</sup>Muir, *WD*, p. 591

<sup>28</sup>Muir, *WD*, p. 713

<sup>29</sup>Muir, *WD*, p. 713

<sup>30</sup>Nash, p. 179

<sup>31</sup>Nash, p. 169-170

<sup>32</sup>Nash, p. 168

<sup>33</sup>Nash, p. 182-199

<sup>34</sup>Nash, p. 191

<sup>35</sup>Leopold, *WFLU*, p 76

<sup>36</sup>Leopold, *WFLU*, p 76

<sup>37</sup>Leopold, *RMG*, p. 148

<sup>38</sup>Leopold, *ASCA*, p. 199

<sup>39</sup>Leopold, *WFLU*, p. 76

<sup>40</sup>Leopold, *RR*, p. 148

<sup>41</sup>NCOR Proceedings, p. 61-65

<sup>42</sup>Nash, p. 201-2

<sup>43</sup>Nash, p. 201-7

<sup>44</sup>Marshall, p. 85

<sup>45</sup>Marshall, p. 95

## Chapter Two: The Cultural Construction of Wilderness

<sup>1</sup>Standing Bear, p. 201

<sup>2</sup>Guha, p. 231-45

<sup>3</sup>Callicott, p. 256

<sup>4</sup>Guha, p. 231-43

<sup>5</sup>Johnson p. x

<sup>6</sup>Brunson, p. 234

<sup>7</sup>Brunson, p. 235

<sup>8</sup>Callicott, p. 349

<sup>9</sup>Callicott, p. 349

<sup>10</sup>Cronon, *TW*, p. 69-90

<sup>11</sup>Callicott, Nelson, p. 12

<sup>12</sup>Cronon, *Changes in the Land*.

<sup>13</sup>Cronon, *UG*, p. 25

<sup>14</sup>Cronon, *TW*, p. 69

<sup>15</sup>Cronon, *TW*, p. 70

<sup>16</sup>Cronon, *TW*, p. 70-71

<sup>17</sup>Cronon, *TW*, p. 71

<sup>18</sup>Cronon, *TW*, p. 72

<sup>19</sup>Cronon, *TW*, p. 73

<sup>20</sup>Cronon, *TW*, p. 74

<sup>21</sup>Cronon, *TW*, p. 75

<sup>22</sup>Cronon, *TW*, p. 76

<sup>23</sup>Marshall, p. 89

<sup>24</sup>Cronon, *TW*, p. 76

<sup>25</sup>Roosevelt, p. 70

<sup>26</sup>Cronon, *TW*, p. 77

<sup>27</sup>Cronon, *TW*, p. 77-78

<sup>28</sup>Cronon, *TW*, p. 80

<sup>29</sup>Cronon, *TW*, p. 84

<sup>30</sup>Cronon, *TW*, p. 81

<sup>31</sup>Cronon, *TW*, p. 79

<sup>32</sup>Cronon, *TW*, p. 83

<sup>33</sup>Standing Bear, p. 201

<sup>34</sup>Satnding Bear, p. 201

<sup>35</sup>Guha, p. 232-34

<sup>36</sup>Guha, p. 239

<sup>37</sup>Guha, p. 235

<sup>38</sup>Indian Government: Ministry of Environment and Forests

<sup>39</sup>Guha, p. 235

<sup>40</sup>Guha, p. 235

<sup>41</sup>Callicott, p. 352

<sup>42</sup>Callicott, p. 352

<sup>43</sup>Callicott, 348-51

<sup>44</sup>Callicott, p. 350

<sup>45</sup>Callicott, p. 350

<sup>46</sup>Muir, p. 593

<sup>47</sup>Williams, p. 3

<sup>48</sup>Williams, p. 33

<sup>49</sup>Pyne, p. 81

<sup>50</sup>Pyne, p. 75-6

<sup>51</sup>Gomez-Pompa, Kaus, p. 393-313

<sup>52</sup>Gomez-Pompa, Kaus, p. 303

<sup>53</sup>Callicott, p. 356

<sup>54</sup>Callicott, p. 356

<sup>55</sup>Pyne, p. 84

<sup>56</sup>Brunson, p. 235

<sup>57</sup>McQuillan, p. 27

<sup>58</sup>Cronon, *TW*, p. 70

<sup>59</sup>Cronon, *TW*, p. 70

<sup>60</sup>Brunson, p. 233

<sup>61</sup>Honderich, p. 677



Chapter Three: Physical Environments, Interactivity and Wilderness

<sup>1</sup>Marshall, p. 87

<sup>2</sup>Rolston, p. 376-9

<sup>3</sup>Callicott, p. 350

<sup>4</sup>Rolston, p. 367-70

<sup>5</sup>Bernstein, p. 8

<sup>6</sup>Bernstein, p. 9

<sup>7</sup>Hayles, p. 47

<sup>8</sup>Hayles, p. 47

<sup>9</sup>Shafer-Landau, p. 25-26

<sup>10</sup>Cronon, p. 73

<sup>11</sup>Wikipedia: Great Black Swamp

<sup>12</sup>Cronon, *TW*, p. 70

<sup>13</sup>Cronon, *TW*, p. 70

<sup>14</sup>Hayles, p. 48

<sup>15</sup>Preston, p. 100

<sup>16</sup>Hayles, p. 49

<sup>17</sup>Hayles, p. 48

<sup>18</sup>Soule, Lease, p. xiii

<sup>19</sup>Hayles, p. 48

<sup>20</sup>Hayles, p. 49

<sup>21</sup>Hayles, p. 50

<sup>22</sup>Hayles, p. 56

<sup>23</sup>Hayles, p. 53

<sup>24</sup>Hayles, p. 52

<sup>25</sup>Preston, p. xi

<sup>26</sup>Preston, p. 72

<sup>27</sup>Preston, p. 98

<sup>28</sup>Cronon, p. 70

<sup>29</sup>Cronon, p. 70

<sup>30</sup>Muir, p. 484

<sup>31</sup>Marshall, p. 91

<sup>32</sup>Marshall, p. 90

<sup>33</sup>Hayles, p. 53

<sup>34</sup>Johnson, p. 207

<sup>35</sup>Marshall, p. 90-1

<sup>36</sup>Marshall, p. 91

<sup>37</sup>Cronon, p. 77

<sup>38</sup>Preston, p. 100

<sup>39</sup>Preston, p. 72

<sup>40</sup>Marshall, p. 90

### Conclusion: Environments, Culture and Wilderness

<sup>1</sup>Rolston, p. 377

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