

REWILDING IN YELLOWSTONE NATIONAL PARK

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Abstract

This project explores what it means to be wild in the specific context of Yellowstone National Park through the reintroduction of the wolves. After seventy years, the wolf that was removed from Yellowstone in 1926, was successfully reintroduced in 1995. It is evident that the ways we perceive the wild influences how we construct and manage landscapes, ecosystems, and species. Throughout history, the wild has taken many shapes and forms in the human imagination and, so too have the ways that we relate to it; attitudes towards the wild have shifted from a feared place to a romanticized and revered place. These shifts influence our relationships with wild species like the wolf. Yellowstone National Park approaches gaining tourist interest partially through the projection of the wildscape. The human within the wildscape is *inherently* a tourist, *inherently* a visitor, who enters, experiences, and leaves. Eleven thousand years of Native histories that are embedded within Yellowstone have been systematically erased and ignored in the attempt to create a haven from humanity, a gem in the wake of the rapid expansion into and construction of the West.

Background

... there is nothing natural about the concept of wilderness. It is entirely a creation of the culture that holds it dear, a product of the very history it seeks to deny.
-William Cronon, "The Trouble With Wilderness" (1996)

As cultural constructs, conceptions of the wild, of wilderness, and of wildness have shifted through time. The ways that we perceive the wild influence the ways we shape landscapes and ecosystems, through the creation of conservation methodologies like rewilding and through the construction of human-to-nature relationships. We conceptualize wildness as being inherently separate from humanness. This separation allows us to exploit and misuse the wild. Until we place humanness within wildness, these two notions will always be at odds with one another.

This capstone aims to explore the boundary between wildness and humanness and question what it means to be wild through the specific lens of Yellowstone National Park's 1995 wolf reintroduction. As a large carnivore and an apex predator, wolves are viewed as a species that epitomizes the wild (Knight 1960). For this reason, the relationship that humans build with wolves is fundamentally impacted by how humans relate to the wild.

Perspectives on the wild have shifted drastically throughout history. The earliest written accounts of the term are biblical, in which the wild was likened to a kind of hell that God was able to leverage as punishment over humankind (Nash 1982). The biblical wild appears similar to a desert, parched and foreboding. It is the land through which the vulnerable traveler must wander; it is a focal point of intensity, of need.

For this reason, the wild is also a place of divine deliverance (Hagar and Ishmael, Abraham), of isolation and renewal (Elijah), and of encounters with God (Moses, the burning bush) (Har-El 2003). Water, the essence of life, breaks through the wilderness and makes it habitable. This perspective brings home the understanding that humans can only go where there is water; an inhospitable environment can be deemed safe, livable, explorable, insofar as it has access to water. God brings the gift of water and the wilderness becomes more docile.

This perspective of the wilderness is both informed by and intended to inspire human agricultural systems. The bible can, in a sense, be read as pro-farming, pro-urban development propaganda. It encapsulates the struggle between the seminomadic shepherd lifestyle and the sedentary agriculturalist, synthesized in the story of Cain, the farmer, and Abel, the shepherd, in Genesis 4, that culminates with Cain's murder of Abel:

“...though these two ways of life share many features, such as monotheism and rejection of idolatry, antipathy exist[ed] between them... reveal[ing] a story of an ideological struggle between an ancient seminomadic people, at home and practicing religion in the wilderness, and a later agrarian people, who abhorred the wilderness and institutionalized religion (by building temples and creating a priestly class to administer them)” (Oelschlaeger 1991, 47).

Abel's death at the hands of Cain does not represent a doing away with shepherding and animal husbandry entirely, but rather, displays a dominance of the agrarian lifestyle over the seminomadic, a dominance of the cultivation of nature over the coexistence with nature.

Jumping quickly through history to the Renaissance and the Reformation with the shattering of the feudal system and the rise of the merchant class, wilderness began to take on a new form with its potential as an economic commodity. It was this shift in consciousness that eventually paved the way for the Baconian ideal of fashioning nature for human purposes, of the human as master of all things, of “convert[ing] wild nature as rapidly as possible into the New Atlantis,” where “virtually any technological transformation of the wilderness [was viewed] an improvement” (Oelschlaeger 1991, 82, 83).

Informed by the feared wild of the bible, the commodified wild of the Renaissance and Reformation, and Bacon's drive to manufacture the wild for human use, the European colonization of the Americas found a frontier that needed to be overcome. The American wild was understood to be dangerous and foreboding (Nash 1982). Demonized Native American tribes became easily lumped into the narrative of a backwards and worthless lifestyle. With the use of guns, germs, and steel, European colonizers murdered as much as 99% of the Native population in the Americas

Diamond 1997). Pre-Columbian landscapes are oft considered historically uninfluenced by people, as being simply wild. But, the Americas in the 18th century were arguably far more wild and far less peopled than they were pre-Columbus (Denevan 1992). The collective imaginary of an unpeopled landscape grew out of the annihilation of indigenous communities.

By destroying the cultures that were interwoven with the landscapes of the Americas, a new designation of the virgin, wild forest arose. This specific type of unpeopled forest was, however, the direct result of genocide. It was rooted in tactical historical erasure, producing a cultural image of the New World, of untapped resources practically waiting to be seized. Thus, “the virgin forest” that has so influenced an understanding of pre-colonized “America was not encountered in the sixteenth and seventeenth centuries; it was invented in the late eighteenth and early nineteenth centuries” with the mass murder of Native peoples and with forced land grabs (Pyne 1982, 46). In this way, the binary that we have constructed, of the wild on one side of the spectrum and the human on the other, leaves much of the history of this continent untold; the history that is both wild *and* peopled.

During the 20th century, perspectives on the wild drastically changed. With the rise of tourist interest to find respite from rapid urbanization, the wild grew to be romanticized as an escape from humanity. Shifting away from fear and away from the urge to transform it for financial gain, a cultural recognition began to emerge that wildness was something to preserve in its own right. The rise of the National Park system alongside the tourist industry intentionally created this paradigmatic shift making use of newly widespread strategic marketing. Peter Blodget explores the rise of what Roderick Frazier Nash has coined “the wilderness cult” in his essay “Selling the Scenery: Advertising and the National Parks, 1916-1933”:

“What Roderick Nash has called “the wilderness cult,” extolling rather than abhorring wild, unspoiled landscapes and the confrontation between human beings and “savage” nature, had become a powerful cultural force by the 1890s. The spread of its influence early in this century revealed how far removed from the struggle to “civilize” the continent most Americans felt as urban America grew without pause. Freed from the need to challenge and subdue wilderness in order to survive, many Americans now drew inspiration from it.

Preconditioned by the popular wilderness literature and early photography that replaced wild lands in words and pictures, more and more middle-class tourists set out to partake of the special virtue of nature. They sought escape in “temporary wilderness,” especially in the Rocky Mountain West, far removed from most aspects of urbanization and long the last resort in the popular imagination of untamed nature. Although the reality of western savagery no longer coincided with stereotypes, the myths lured the tourists and their dollars” (Blodgett 2001, 288-289).

Without the rapid development that spurred out of the Industrial Revolution, public interest in wild areas would seem foolish; it is only out of *loss* and *scarcity* that humanity begins to find interest. Yellowstone’s designation as the world’s first national park, therefore, was the result of a very specific political and cultural climate and of a human nostalgic inclination. Out of these components, a wilderness ideal was born.

Situated Context

This capstone project approaches questioning what it means to be wild through the specific lens of Yellowstone National Park’s wolf reintroduction, a process known as rewilding. Exploring the boundary between wildness and humanness, we can see that the shift from feared wilderness to romanticized wilderness goes hand in hand with having *control* over the circumstances of the place. Yellowstone National Park, designated in 1872 as the world’s first national park, was intentionally created as a tourist-oriented vacation spot. Being the first location to become an American placeholder for the untouched West, Yellowstone represented a way to keep time at a standstill while the rest of the US underwent rapid development.

The park’s main financial support, particularly at its earliest stages, was the money coming in from tourist visitations. Thus, Yellowstone was built from the get-go to be accessible both by foot and car, and to have the amenities that make city folk feel at peace in a natural setting, Hotels, large passages, and managed pathways around geysers and other natural wonders were built to create a veneer of a tamed and safe environment that could be a getaway for the whole family. Dance halls, swimming pools, and bear-feeding shows were all used to bolster the American dream that nature was fruitful and at-our-service

(Barringer 2002). “Yellowstone epitomized the transition from wilderness as a threat to nature as an attraction...wilderness, in the old stories, was a place inherently frightening, lacking order and beyond control or understanding. In the newer versions nature was a pleasant landscape able to provide spiritual sustenance” (18, Barringer 2002).

Through defining the wild as a tourist destination, as a place that should be set aside and preserved for its natural pleasantries, there are two significant implications that follow: *who* and *what* belong within the park and at *what time*. Thus, the natural world began to be categorized into elements that were good for tourism and elements that were not:

“Predators—mountain lions, timber wolves, and coyotes—had no role in national parks and were hunted with enthusiasm... Forest fires were also categorized as detrimental to tourism and were for years aggressively attacked, even though fire had been a part of the natural cycle of forest life for millennia. Mather termed fire the “Forest Fiend,” and adopted for the National Park Service the same policy adhered to and promoted by the Forest Service. Burned forests were ugly forests, and visitors did not go to national parks to see blackened landscapes” (Pitcaithley 2001, 304).

Consequently, the Crow, Bannock, Shoshone, Nez Perce, and Sheep Eater tribes were forcefully removed after their presence brought a pinch of reality in 1877 to the park’s ; the Nez Perce were on route to Canada in an attempt to abandon their reservation, when they came across some Yellowstone vacationers in the Lower Geyser Basin. An altercation ensued which ended in white casualties (Spence 1999). A slew of political tumult ensued, which resulted in Philetus W. Norris, the park superintendent at the time, ordering the forceful removal of all Native tribes from the park in 1879 (Barringer 2002). Natives who stood in opposition were killed. Norris drove the message home: wilderness was to be *unpeopled*.

Similarly, predators were eliminated or very carefully managed; wolves were the first to go and were officially extirpated in 1926 after a three-century period of attack against wolves in the US using trapping, shooting, and poisoning (McIntyre 1995). Non-predatory ungulate populations like elk, deer, and bison, however, were protected. Bison, as an icon of the west, were bred within the park to fill entire valleys, serving as a reminder to visitors of the vastness of the natural world.

Human-to-nature relationships describe *how* and *why* humans interact within nature and what we believe it means to *be* natural. They are the lens through which we perceive, experience, and construct natural landscapes and ecosystems. But, how do public conceptions of wilderness, wildness, and the wild influence rewilding efforts in Yellowstone National Park? Rewilding is the process of how our conceptions of the wild influence our constructions of the wild. In the case of Yellowstone National Park's rewilding efforts, the wolf is emblematic of the missing link within the ecosystem that, when reintroduced, produces the outcome of a wildscape.

The wolf's designation as a wild species has been a huge detriment to them historically; they have been systematically killed in much of their territory under the guise of creating safer and more controlled areas suitable for human habitation (Coleman 2017). However, this perspective is driven by a biblical European line of influence, which associates the wolf with evil. This influence is still present in the communities surrounding Yellowstone National Park which have made signs highlighting the innately *vile* demeanor of the wolf, stating: "The Wolf is the Saddam Hussein of the Animal World. We don't want Saddam in Montana!!!" (139, Knight 1997). Perspectives on wolves have been much less brutal in other cultures. For example, there is evidence that the Japanese wolf was revered by farmers—prior to the Meiji Restoration of 1868 and the introduction of American-influenced cattle ranching techniques—because they mitigated losses from deer, wild, boar, and bears on crops and livestock. Ceremonial wolf offerings were made in recognition of the wolf as a powerful and innately benign mountain spirit that protected humans (Knight 1997).

Recent studies have begun to highlight the crucial influence the wolf has over an entire ecosystem through the trophic cascade structure (Weiss et al. 2007, Smith et al. 2003, Wilmers et al. 2003). In fact, it was "only in recent decades that the wolf's absence in many parts of its historical range [was] seen as a loss" (Arts et al. 2015). This loss lies in the ways that wolves create a sense of fear that influences *where* and *when* other animals can eat. This theory is known as the 'landscape of fear' in which the grazing patterns of herbivores are drastically altered by the presence of a predator species. Knowing that they might be

prone to attack, the herbivore learns to avoid eating in open ranges, thereby allowing saplings to take root, and continuing the forest succession cycle (Laundré et al. 2010). Without the fear of predation, grazing species can bring forest succession nearly to a halt. Even when ungulate species are culled to a fraction of their former size, their grazing patterns remain the same. The 'landscape of fear' allows riparian plants, namely willows and aspens, to flourish and provide habitat for bird populations and fodder for beaver dam construction.

These impacts extend to the surrounding economy, as well. One example of this can be seen with trout, a cold-water spawning fish. Riparian vegetation increases with the forest succession process, shading waterways and helping to maintain temperatures suitable to cold water fish species. An increase in riparian vegetation also leads to more fodder for beaver dam construction, which provide crucial deep pond habitat for juvenile trout and substantially increase the yields of trout that can be fished by sports-fisherman within the park (Weiss et al. 2007). This increase in fish number incentivizes fish tourism in the park, providing a boost to the economy both within and around the park. Many carnivores and herbivores who prey on trout also experience an increase in food supply (Laundré et al. 2010).

Wolf presence in Yellowstone increases tourist interest to visit the park, which can be measured through how much tourists are willing to pay to visit (see Figure 4). There are a number of reasons that gave rise to this interest; folks visiting the park are enticed by the idea of being in the same general place as a wolf, of the potential to see and/or hear a wolf, and people who fish trout are incentivized by the increase in supply.

Wildlife is, in many ways, a commodity within the national park system. It is the focal point that keeps together a multi-million-dollar hunting and outfitting industry, as elk, mule deer, moose, and bighorn are all principal game species that are maintained through wilderness conservation (Magoc 1999). Recent wilderness management in Yellowstone wilderness has taken a more hands-off approach, intentionally producing a landscape that appears to have free will. In order to understand the ways that Yellowstone conceptualizes what it means to

be wild *currently* and how those viewpoints influence the creation of the landscape, I analyzed the Yellowstone National Park website and created a Word Cloud to depict the results (see Figure 3).

I also interviewed a number of artists and authors at the Audubon Society of Portland's Wild Arts Festival and created a Voyant-Tools Word Cloud depicting the results (see Figure 2). This graphic is intended to provide insight into the common terms associated with the term wild. It also provides a reference point by which one may juxtapose the Yellowstone National Park website Word Cloud.

Another outcome of this project was an Actor Concept Map that I created to display the interconnectivity of many of the different players in Yellowstone. This graphic can be a useful tool to reference throughout the results section. It also provides a way to visually display the complexity of what it means to be wild in Yellowstone.

Another aspect of this capstone has been to research the influences that the wolf reintroduction had on tourist interest to visit the park. To explore this, I analyzed the economic influence of the wolf reintroduction on the economies both surrounding and within Yellowstone National Park. See Figure 4 to view the graph depicting this increase in tourist interest and to read about this research in greater detail.

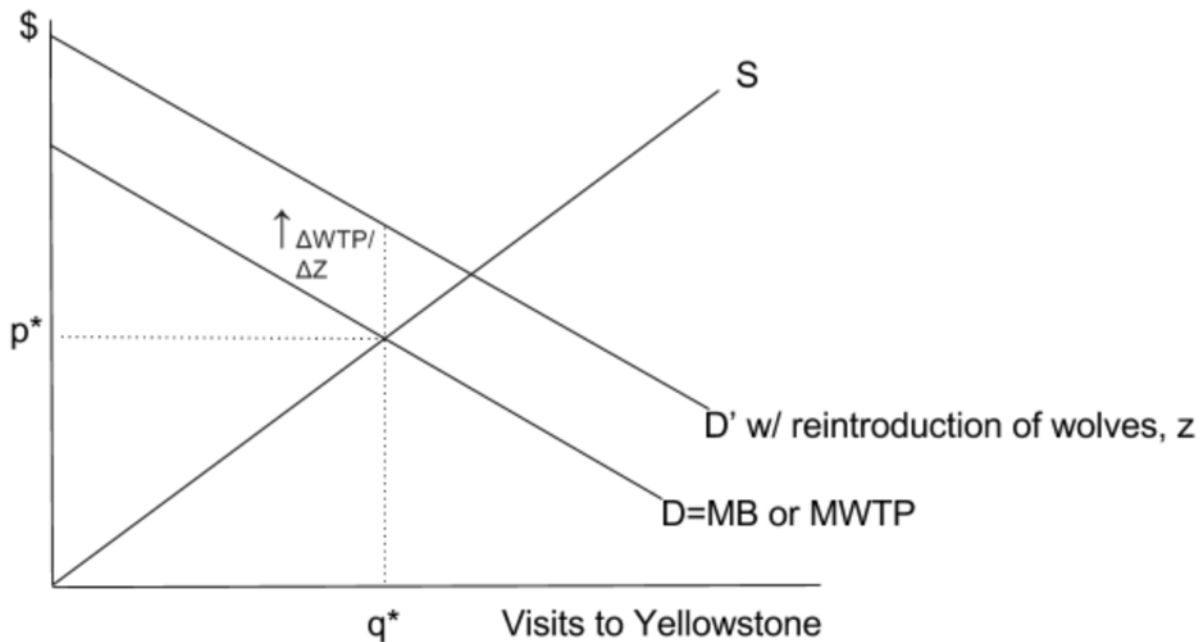


Figure 3: This graph uses the Hedonic Model to depict tourist demand for visiting Yellowstone National Park before and after the reintroduction of the wolves in 1995. The expression between the two lines signifies that the willingness to pay for visiting Yellowstone National Park increases with the presence of wolves.

This graph indicates that the reintroduction of wolves to Yellowstone National Park positively influenced the economy. In this graph, the demand (D) is increased by the presence of wolves in the park (z). With the change in z, or the reintroduction of the wolves to the park's ecosystem, demand for visitation increases. There are a number of reasons that give rise to this increase, including an interest in: being in the same place as wolves, seeing/hearing a wolf, and an increase in fish supply for sport-fishing. The supply (S) represents the supply of tourists that could come to Yellowstone National Park. It remains constant, as the supply is not influenced by the wolf-reintroduction; the same number of potential visitors exist either way.

Podcasts

One facet of this project was the production of podcasts exploring the question 'what does it mean to be wild.' These podcasts incorporate interviews with a number of different artists, authors, and professors. As the alternative outcome for this capstone project, they provided me with a platform to be creative with my research.

To listen to the What is Wild podcasts, click [here](#) or navigate to the link:

<https://soundcloud.com/user-640266169>.

Generalizations and Comparisons of Results

These results may be relevant in other natural and wilderness areas. By definition, these areas only include humans if they are strictly visitors. They do not account for the cultural heritage of the land, nor do they recognize the brutal and forceful removal of Native people that led to them being *unpeopled*.

These results are also relevant when looking at species reintroductions. We can glean that reintroduction is possible and is necessary to maintain balanced ecosystems. Through redefining the wild and reclaiming cultural heritage, we can reclaim space for the animals, namely large carnivores, that have also been forcefully removed. We can see the general framework that influences and defines these practices, thereby shifting human to nature interactions away from spectatorship and into deeper realms of respect and understanding.

These results have important implications for the larger question motivating this project; what is wild? What does it mean to *be* wild, to *be* a wilderness area, to *experience* or *embody* wildness? Through studying perspectives on these terms, we can understand how and why we have been influenced by them in the first place. By having a systemic framework in mind, one can see the general thread of influence that has overarching patterns on the

ways humans create and define wildness. Wildness, wilderness, and the wild have many definitions; they encompass a whole range of perspectives. The implications of studying these perspectives are that we can see the many influences they have on our world.

Next Steps

I recommend that natural and wilderness areas recognize the implicit contradictions rooted in these terms. I suggest that they address the (often) violent history that has aided the construction of unpeopled landscapes and work with Native tribes to seek reparations. I suggest that rewilding become a more visible conservation methodology in the United States and that habitat and migratory patterns of large predators be kept on the forefront of discussion moving forward in the Anthropocene. How should we move forward as a society with the understanding that nature and wildness are constructed concepts; how may we take that knowledge and use it for the best good?

Further Research

There are a number of ways this project could be advanced upon; there are offshoots that came up throughout my research project that could and *should* be potential projects all of their own.

The term “natural” has similar broad-ranging consequences for the ways we construct landscapes and ecosystems. Natural is also generally considered to be on the opposite side of the binary as human-influenced. In this way, the words natural and wild have much in common. They occupy a similar sphere of importance to humanity; they are what we set aside, the places, the living entities, the concepts that we choose to leave alone. With naturalness, however, there is more leeway to extend influence if its perceived to be a *good* thing. In this way, the idea of a natural entity holds moral weight. Humans are allowed to involve themselves in the natural world if we are *helping*, if we are *needed* to maintain it, to

change it *back* to what it was before we created alterations. An interesting project topic could be to deconstruct the term “natural,” to ask what consequences it has had on the construction of landscapes, ecosystems, (and maybe the deconstruction) of cultural history? How is this term used for social leverage? What is the etymology of the word and how has it been used, how might it have changed, throughout history?

More research could also be done on the current political climate of the Native tribes around Yellowstone National Park. Researching how Native tribes around Yellowstone would like to move forward with an understanding of the damage that’s been done in the name of the park, in the name of the cattle ranching industry, and in the name of tourism. It would be valuable to research what current opinions and feelings are prevalent amongst the tribes from that region. How would they like to move forward? How can a more nuanced view of the wild incorporate and represent human history? Is that something the tribes would find valuable? What other ways would they like to seek reparations? What would it look like to reimagine a Yellowstone structured around native presence?

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